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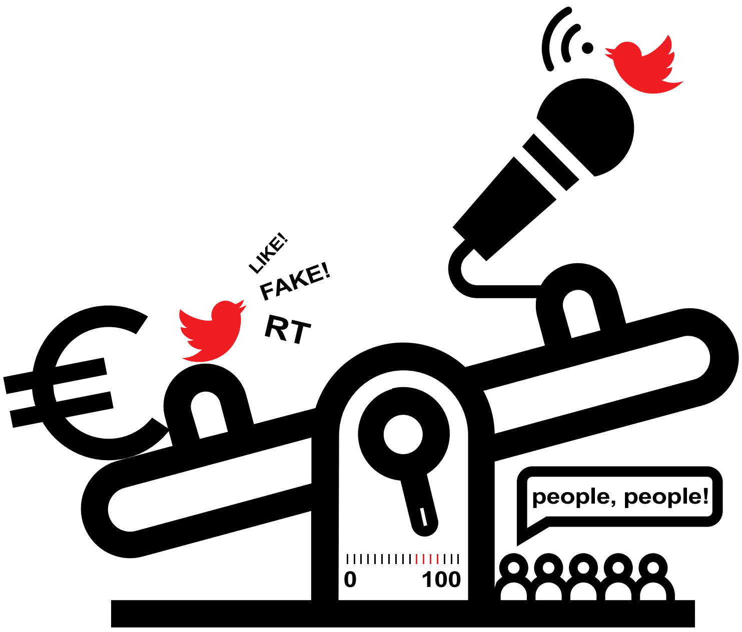

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Letter: Central nodes in the reform of the Spanish *Universities Law*

Igor Ahedo-Gurrutxaga; Jone Martínez-Palacios; Andere Ormazabal-Gaston

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Abstract

The recent presentation of the definitive Bill for the Organic Law of the Spanish University System was preceded by a long process of consultation and negotiation with the university community, and its starting point can be found in a qualitative study carried out by the authors of this letter. That research work aimed to reveal the positions of the different sectors involved in the universities in terms of the three nodes which had been defined by the *Ministry for Universities* as strategic: finance, governance, and professional advancement. This letter aims to compare these positions with the definitive articles of the Bill, in addition to situating the final governance design within the European regulatory framework. It highlights the uniqueness of the Spanish model in a context of reform that is strongly influenced by the ideals of New Public Management.

Keywords

University; Higher education; University governance; University reform; Higher Education Legislation; *Organic Law of the Spanish University System*; Spain.

1. Introduction

On 9 May 2022, the Spanish *Ministry for Universities* presented the definitive Bill for the *Organic Law of the University System* (*LOSU* in Spanish). Its approval by the Council of Ministers will begin the process for it to be passed by *Parliament*. The bill marks the end of a cycle of lengthy negotiations, and it is preceded by two draft bills prepared under the aegis of Manuel Castells. As a result, progress is being made in meeting one of the demands of the European authorities, who have been proactive in promoting the reform of the regulatory framework for Higher Education (HE).

To rise to this challenge, as a starting point for a broad consultation process with the actors involved, the *Ministry* commissioned a team made up of the signatories of this letter to design a study which would map out the central nodes of the reform of the *Spanish Universities Law*. This research work was supported by semi-structured interviews and discussion groups carried out between January and March 2020, and collected information from 32 people that represent the existing positions and discourses in the university ecosystem. Specifically, with gender parity, we worked with internal management profiles (senior university managers and rectors) and external management profiles (senior civil servants in the *Ministry*), with organized and ad hoc student groups, and with tenured and untenured teaching and research staff. The organizational and trade union perspective was also incorporated, and we were careful to have representatives from the four Spanish national regions and the international perspective.

> The reform of the form of government and election, and the opening to the management and external direction of the universities have been the key to reforms in Europe for 20 years, adapting the university regulatory framework to the precepts of efficiency and effectiveness of New Public Management

During the study, positions were found to cluster around 4 thematic blocks, defined by the *Ministry for Universities* as the central axes of the reform:

- governance and university structure;
- financing;
- research and transfer; and
- teaching and students.

The objective of this letter is to analyze how the current bill has responded to the positions found in this study, as well as to situate the bill within the framework of European reforms. Due to limitations of space, we will focus on the first three nodes. Firstly, we will identify some of the central positions of the various actors around each analytical axis. Subsequently, we will explain the way in which these ideas are reflected in the bill. We will end by framing the legislative text within the literature on governance, as this is the central element on which most reforms in Europe have been based. This letter does not aim to cover all the aspects addressed in the research we carried out or those defined in the regulatory framework. The parliamentary process that is beginning, surely, will be able to broaden the debate and shed light on the positions that we address in this rapprochement.

2. Elements of consensus and plurality of views

Despite the wide diversity of opinions, a series of unanimous aspects emerged in the research:

- the need to carry out a regulatory reform that would shield the financing;
- the defence of public education and its value in society;
- a professional commitment that aims to reinforce the importance of universities as a public service to meet the immediate, strategic needs of changing times; and
- a demand for recognition which admits transparency, but is keen to overcome tendencies towards an audit system based on mistrust.

However, one of the elements that stood out in the research was the varying importance placed on the different topics depending on the position of the participants. Specifically, with the exception of the senior civil servants in the *Ministry*, there were few interventions that showed a clear, interconnected view of all the nodes raised. In general terms, among senior university managers, the interest was in finance, governance and, to a lesser extent, research and teaching. However, while the tenured Teaching and Research Staff (PDI in Spanish) focused their concerns on bureaucratization and academic promotion, the untenured staff focused on job insecurity and the difficulty of getting stable work. Nevertheless, all the PDI thought that a commitment to quality teaching and research with decent conditions was central. This point of view also cites financial backing as a condition for the success of any university reform.

Based on the main nodes, we detail the way in which the actors positioned themselves throughout the study, contrasting this with the Bill itself.

3. Stability, career and professional function

> "Unstable, precarious, exhausting… and it goes on being exhausting."

This is how one informant described her academic career. All the participants underline that the road to stability has always been "long and hard" (this was said by several interviewees who currently occupy high positions: "I was not born a professor", one rector told us), but in the study one differentiating factor emerged: there were no guarantees that this journey would end in a stable job. One lecturer, about to try for an internal promotion, did not know where she would be the following month: "you live in constant uncertainty".

> "I applied for this promotion and maybe by August I'll be out of a job. You prepare your lectures and maybe next year you will no longer be at this university. This uncertainty is psychologically exhausting. At my age, 36, I have life projects that are not work-related, but I have to keep postponing them… It is tiring, it is constant, there is no let-up, but you continue because you are tenacious." [Lecturer]

This element is linked to lack of tenure and to the figure of the Associate Lecturer, originally designed to attract experienced professionals, but used to hire staff on precarious contracts, as research is not included. In 2021, of the more than 25,000 Associate Lecturer contracts, 46% had doctorates and 45% had been in the post for more than 6 years. Agreeing with the other participants, the *Ministry* defined the origin and consequences of this situation.

> "A lack of funding in the Spanish university system has meant that teaching staff have been used in truly unacceptable ways." [Senior civil servant in the *Ministry*]

> As a starting point for a broad consultation process with the actors involved, for the design of the *LOSU*, the *Ministry* commissioned us to carry out a study which would map out the central nodes of the reform of the *Spanish Universities Law*

In this regard, one of the central elements of the Bill is the limitation to 20% of lecturers on temporary contracts, as well as the definition of a path to stability with assessed paths laid out in terms of incorporation, consolidation and promotion. Similarly, the Bill confirms the dual role of the professional career, based on teaching and research, which is a model unanimously agreed in the research field to be the most appropriate. Furthermore, to safeguard access to the post of Associate Lecturer, without capacity for research, the *LOSU* gives teaching and research equal weight in the internal selection process.

This aspect of the Bill reflects another axis shared in the interviews: the need to rebalance the two functions of the lecturing staff, based on the unanimous consensus of the participants about the loss of centrality of teaching compared to research. This lack of recognition of teaching emerged when discussing access to posts, the absence of resources for teaching research, the absence of figures in teaching research or the lower weight of this type of merit in accreditations compared with pure research. This lack of appreciation can be seen in symbolic ways: one interviewee noted that the number of teaching hours is called *the teaching load*, a term not used for research.

In addition to the recognition of teaching merits, which must be measured quantitatively and qualitatively in accreditation and internal selection processes, the LOSU bill establishes that it will be compulsory for Doctoral Teaching Assistants to complete a teacher training course; it is proposed that teaching evaluation should be mandatory; and innovation in the forms of learning and teaching should be incorporated as a guiding principle of the university system. Previously, article 21 of the Royal Decree on the Organization of University Education had already established, in way that was new in the Spanish legal framework, a commitment to innovative teaching methodologies, which, if they affect the entire study plan, could be recognized in the European Diploma Supplement. At the same time, the *Ministry* is advancing the revaluation of teaching activity, assessing possible personal or collective incentives for excellence.

4. Financing

The deficit and disparity in financing was a key element in the comments of the university administrators, and all the people who addressed this issue, without exception, also considered funding insufficient. One of the participants expressed it graphically:

> "Honestly, I did not have the capacity to do anything sustainable, and that was the result of lack of funding. The money, which does not come in, is for maintaining things. My goal was for the campus not to collapse and for people not to kill themselves in potholes. That was my main objective. I was Director of Sustainability and I dedicated myself to sustaining my buildings." [Rectoral management team]

In this respect, in 2017 the Report by the *Spanish University System Observatory* identified a wide disparity in the financing of public universities, as this is the responsibility of the autonomous regions. Furthermore, for the 2009-2015 period, it found a 20.2% decrease in income in the public universities in which the increase in income from fees (31.0%) did not compensate for the drop in public funding (-27.7%). In this period, the highest level of financing was in Andalusia (0.87% of GDP) and the lowest in the Balearic Islands (0.23%), Navarra (0.30%) and Castilla-La Mancha (0.35%). Only two of the Autonomous Communities (Valencia and Andalusia) reach the average of the EU22, and 5 of them (the three already mentioned, as well as La Rioja and the Basque Country) have funding below all the OECD countries. This report concluded that in 2017 a GDP increase of 17.7% would be needed to reach the EU22 average and 26.2% to reach the *OECD* average (**Sacristán**, 2017).

Regarding this issue, the final articles of the LOSU bill set out the obligation for the State and the Regional Governments to prepare a Plan to increase public spending that allocates a minimum of 1% to Higher Education in the Spanish State as a whole. This is a milestone that was not there in previous drafts, and was unanimously called for by all the participants in the study.

5. University governance

The arguments regarding governance were articulated on three axes: internal, related to the form of governing body and election; external, linked to the participation of society in the management and direction of the universities; and transversal, associated with accountability for research, teaching and social projects. These aspects, in fact, have been the key to reforms in Europe for the last 20 years, adapting the university regulatory framework to the precepts of efficiency and effectiveness of New Public Management (**Donina**; **Hasanefendic**, 2018; **Trakman**, 2008; **Christensen**, 2011; **Macheridis**; **Paulsson**, 2021).

5.1. Accountability and planning according to objectives

Authors such as **Enders**, **Boer** & **Weyer** (2012) consider that Europe is witnessing a model of "regulatory autonomy" whereby the State guides university action by making its financing dependent on the achievement of objectives agreed with government institutions. This model, already consolidated in Spain with the deployment of regional contracts/plans, is confirmed by the LOSU with a series of unusual aspects identified by some participants in the research.

> "In the document for University 2030 presented at the Conference of Spanish Rectors, the finance section establishes that there must be two or three large funds for financing. One of them has to be the structural fund, which has to be sufficient to allow the institution to function. Then there must be a fund for results, which aims to encourage the improvement of those aspects that may be politically strategic for the Regional Governments, for the State, for whatever is needed." [Rectoral management team]

Other representatives of rectoral teams and the *Ministry* added the consideration of distinct languages or historical infrastructures to this matter. The LOSU takes up this approach and differentiates, on the one hand, structural financing (aimed at personnel and infrastructure) and financing for exceptional reasons (dispersal or presence in rural environments or the Spanish islands, in addition to the aspects pointed out in the study); and on the other hand, financing for specific objectives. In this case, the LOSU links this funding not only to research, but also to other elements defined in the study as key aspects:

> "A lack of funding in the Spanish university system has meant that teaching staff have been used in truly unacceptable ways." [Senior civil servant in the *Ministry*]

- Gender equity, which is also specified in the obligation to implement Equality Plans and positive action policies in professional career development
- The dissemination of Open and Citizen Science, to which the LOSU is committed through making it mandatory to have open dissemination of scientific advances and the collaboration of the university in its environment, with civil society projects or service-learning strategies
- Lifelong training, which in the Bill incorporates the commitment to official micro-degrees of between 4 and 30 credits, aimed at expanding training capacity beyond the youth sector.

Beyond these elements, linked to the importance of accountability for science research and communication (**Codina**, 2021), the LOSU requires universities to implement analytical accounting systems. This aspect was present in the study, seen not as a monitoring mechanism, but as an analytical tool for strategically defining finance for territorial or sectoral specialization.

> "The European strategy is what will define the national strategy, but the strategies of each Autonomous Region may be different. There may be an Autonomous Region that emphasizes universities or faculties to do with agricultural development and others that are related with industrial development; it depends on their environment." [Senior civil servant in the *Ministry*]

> "Each university defines a series of specialization priorities that should be linked to the needs of the regions, and financial support mechanisms could be encouraged based on this concept. This model could generate thematic associations and inter-university alliances. It would be something similar to the system of "key words" in articles. If the "article" is the University, you see what each university has specialized in. If what interests you is the theme, you look for alliances based on the specializations of each campus." [Lecturer]

The deficit and disparity in financing was a key element in the comments of the university administrators: "I was Director of Sustainability and I dedicated myself to sustaining my buildings." [Rectoral team]

5.2. Internal and external governance

Another central element in the research was that of the forms of governance in the university, as has happened in the rest of Europe (**Donina**; **Hasanefendic**, 2018; **Gornitzka**; **Maassen**, 2017; **Capano**; **Pritoni**, 2020). Among the participants, conflicting proposals can be seen: from vertical and directive models to horizontal models of democratic intensification, according to previous studies such as that of **Castro** & **Georgeta** (2011). Next, we contrast the formula proposed by someone who holds the rectoral baton, in contrast to a model defined by a lecturer:

> "How do you define being a Rector? Well, it's like herding cats. How do we manage the university strategically? How do we do it? You try to make any reform in the universities! [Here he mention the example of a change from 4+1 to 3+2] The universities are paralyzed by the petty fiefdoms that exist, because you cannot break them easily. I would change the governance system to introduce elements that allow the rectoral team to align more easily with the heads of centres and the heads of departments." [Rectoral team]

> "We should think up a more imaginative structure that would allow many people to do few things and therefore form a broader 'we' based on defined horizons shared in democratic bodies. It would be like a kind of old-fashioned democratic centralism in which a shared horizon is defined, with an almost libertarian formula of participation in groups. The key is to have many people doing few things from a defined, demarcated and fixed point of view." [Lecturer]

Another aspect of governance refers to the universities' relationship with society. This is another of the central axes on which the regulatory debate in Europe has pivoted (**Jessop**, 2017; **Gornitzka**; **Maassen**; **De-Boer**, 2017). In the study, proposals emerged, on the one hand, (admittedly minority ones) that opted to open the debate to management formulas based on an external management of the university (the majority model in current practice in Europe); and on the other hand, unrepentant approaches of self-government by the university body, shielded from business or managerial influence, were especially present among the teaching and research staff and in union organizations.

> The *LOSU* bill establishes that it will be compulsory for Doctoral Teaching Assistants to complete a teacher training course; it is proposed that teaching evaluation should be mandatory; and innovation in the forms of learning and teaching should be incorporated as a guiding principle of the university system

> "I am pro-universal suffrage, but there is another governing model on the table, which is much more pragmatic: that you should have a board like in most European universities that chooses the rector. There would be people who represent civil society, and others who represent the business community, and so on. I would be in favour of that as long as the highest percentage was teaching and research staff, from the university itself." [Rectoral team]
>
> The key debate is how to achieve open, real participation with people across the board in the management of the university." [Union representative]

Another ex-rector presented an interesting idea about the debate on managerial professionalization, refocusing the commitment to efficiency and effectiveness not only in governing the university.

Here they trick you, as they did to me, and I know it. Those who speak of this professionalization do so from a selective point of view, of the one who is in charge, not the rest [of the levels]. It makes no sense that a professor who is doing organic chemistry has to be the specialist in how to create a MOOC. What is the difference between a Spanish university and a German university? In the professionalization of administrative structures. Lecturer.

In its legislative form, the articles have undergone changes in their various formulations. The first of the drafts opened the possibility to vertical management forms and professionalized external management. Distancing itself from the European frameworks based purely on the ideas of New Public Management and the premises of the Anglo-Saxon neoliberal model (**Brazzill**, 2020), it left the universities with the possibility of adopting these models or keeping the current one, as had happened with the reform of Portuguese universities (**Donina**; **Hasanefendic**, 2018). However, the second draft made an about-turn and described a model that closed the door to external government and management formulas while proposing a Napoleonic structuring of the internal governing body based on the principle of voting, with bodies of broad representation, in clear dissonance with the models that are promoted by the OECD (**Donina**; **Hasanefendic**, 2018; **Gornitzka**; **Maassen**, 2017) or the ones that have already been implemented in the Netherlands, Sweden, Denmark and Austria (**Capano**; **Pritoni**, 2020). In the end, the final text has kept the essence of the second draft, closing the door to external government, but it will leave the definition of broad or closed government structures in the hands of the universities, safeguarding the principle of universal suffrage. It can be concluded, in this sense, that the current proposal, if successful, would be an exception within the model based on the New Public Management formulas. However, there are far from uniform interpretations, as the literature shows hybrid development at continental level (**Capano**; **Pritoni**, 2018) and state level (**Gornitzka**; **Maasen**; **De-Boer**, 2017) in the deployment of types of governance in Higher Education. Thus, the embodiment of the concepts of New Public Management promoted by the European authorities is strongly conditioned by national trajectories and culture, as well as by governmental will (**Hall**; **Grimaldi**; **Gunter**, 2015), in this case marked by the progressive character of the *Ministry for Universities*.

> The deficit and disparity in financing was a key element in the comments of the university administrators: "I was Director of Sustainability and I dedicated myself to sustaining my buildings." [Rectoral team]

We end by thanking the journal *Profesional de la información* for the opportunity to present these brushstrokes about a bill that is now beginning its progress through parliament. We fervently believe that social and academic debate can only guarantee that it will be improved.

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Communication and crisis in the public space: Dissolution and uncertainty

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Abstract

The evolution from a public space such as the one defined throughout the twentieth century –characterised by unidirectionality and political and media intermediation– towards a digital scenario –with multiple actors and multi-directional messages– has not resolved the problems that existed beforehand, and has also generated others. This public space crisis has been aggravated by the fragmentation of audiences, often absorbed into their own echo chamber, and by the dispersion and jumble of voices that are an impediment to any possibility of unravelling the terms of public debate. Faced with enormous challenges such as disinformation, the conventional media, who have traditionally held the responsibility of providing quality information, address these issues from a position of extreme vulnerability, due to the disintegration of the former economic model and social credibility. In a context of uncertainty, crisis, and fragmented public spheres, and there being no alternatives that can guarantee distinct dialogue, the initiation of a social debate that prioritises quality of information is essential.

Keywords

Public space; Public sphere; Polarization; Crisis; Digital communication; Conventional media; Demediatization; Quality of the information; Disinformation; Sustainability; Profession; Professionals; Credibility.

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1. Introduction

The title we have chosen for this single-issue edition of the journal *Profesional de la información*, "Communication and crisis in the public space", defines the complex situation faced by the communicative ecosystem, which has grown in intensity over the last decade. Indeed, using the term 'crisis' to define the functioning of the public space is no exaggeration, as it is now characterised by a multiplicity of sources, the speed of transmission of messages, difficulty in discerning their origin, fragmentation of the public and audiences and, finally, a loss of centrality of traditional intermediaries, that is, political parties and the media (**Sánchez-Cuenca**, 2022). It would, however, serve us well if we paused to analyse what kind of a crisis it is, and especially what type of a public space we refer to.

The public space is a place, as its name suggests, or rather an amalgamation of places, where public opinion is generated –actually or potentially. It is a space where public debate takes place, subjected to public scrutiny, in which the actors of public opinion progress. The public sphere emerges from the interaction of social actors in the public space. Both concepts, public space and public sphere, are defined by Jürgen Habermas in *The structural transformation of the public sphere* [1962] (**Habermas**, 1997), which contains a thorough analysis of the origins and evolution of public opinion that gave rise to bourgeois revolutions in the West. Habermas defines a public sphere with specific conditions and actors, who usually operate in small spaces, in person, and who have an active role in them. And that is the first thing we must consider when discussing 'crisis' in the public space: we must understand that 'crisis' necessarily incorporates the evolution of the actors operating within it.

The salons, cafés, and public assemblies eventually give way –after bourgeois revolutions– to the configuration of the public space that has organised our modern democracies, and which is essentially a public space organised by mass media, interpreters of social reality and generalised mediators. In Habermas' opinion, this situation partially distorts his critical public opinion model (**Habermas**, 1998), since the media often imposed a unidirectional form of communication, dictated by economic and social elites, where public participation was almost always marginal or even non-existent [1981] (**Habermas**, 1999a; 1999b). Indeed, the mediated public sphere, which tries to include public discussion in complex social systems, characterised by intermediation (political and media) –inevitable if we want to fit in groups of millions of people organised in nation states of hundreds of thousands or millions of square kilometres– has been and is heavily criticised by public opinion studies and, of course, specific media analysis studies.

2. The new communication and public space

Because of the above, the development of substantially new and innovative digital communication systems, which greatly facilitated one-to-one, many-to-many, and also –as had already occurred with the media– one-to-many (**Morris**; **Ogan**, 1996) communication, initially generated a wave of cyber-optimistic comments and analyses; these commentators saw the internet and the new digital communication as the answer to the insufficiencies and problems of mass society, whose public debate was in practice monopolised by intermediaries (**Rheingold**, 2002; **Jenkins**, 2008). Digital technologies weakened this intermediation by sharing it with other actors, and generated a new communicative and public scenario (**López-García**, 2006).

The problem, as cyber-pessimists were quick to argue, is that such a scenario didn't work either. What's more: it generated more problems than those it 'resolved' (**Sunstein**, 2001; **Morozov**, 2011). The intermediation crisis has become a public space crisis that has led us to the paradoxical situation of yearning for the previous scenario, despite all its problems and insufficiencies, because media intermediation at least guaranteed a distinct dialogue that could establish a clearly delimited playing field (i.e. a public space) (**Bimber**; **Gil de Zúñiga**, 2020).

Schlesinger (2020) argues that the public sphere mediated by the mass media –particularly press and television– was characterised by a control of public discourse by the communicators who were located at the centre of this media system, who functioned as indispensable mediators. The inevitable evolution of this model was towards a dialogue and tension between media instances and new forms of digital communication (**Castells**, 2009), which **Chadwick** (2013) calls a "hybrid model of communication", characterised by the interaction, confluence and competition between the *old* and the *new* media. The loss of credibility of the traditional media, and the possibilities of creating and distributing messages in the public sphere through social networks, has allowed political and social actors who were previously excluded from it to participate in it; but it has also lowered the standards for the circulation of messages and facilitated the spreading of falsehoods or hate speech. Far from facilitating consensus and unity around democratic values, this context has contributed to polarisation and disengagement (**Sunstein**, 2019), as well as a greater presence and visibility of political positions that directly confront these principles.

The idea of an inclusive public sphere, fair debate and consensus (**Habermas**, 1997) is called into question mainly because of two factors (**Bennett**; **Pfetsch**, 2018): first, the multiplication of media and forms of digital communication have increased the dispersion and jumble of voices in the public debate; second, the fragmentation of public groups generates homogeneous public spheres that function as echo chambers in which alternative points of view are barely heard (**Dahlgren**, 2005). In addition, trust in institutions and traditional media is declining, as it seems is their influence. The public is separating into increasingly specific and singular realities, where they interpret things according to their convenience and biases (**Sunstein**, 2001), invalidating any notion of rational interaction between equals in search of a consensus, as proposed by **Habermas** (1998) when he outlined the space of deliberative democracy that should belong to the public sphere (**Sampedro**, 2000); Habermas's proposal for the functioning of public opinion was always much more prescriptive than descriptive (**López-García**, 2004).

> The intermediation crisis has become a public space crisis that has led us to the paradoxical situation of yearning for the previous scenario, despite all its problems and insufficiencies

3. The dissolution of the public sphere

> This public space crisis has been aggravated by the fragmentation of audiences, often absorbed into their own echo chamber, and by the dispersion and jumble of voices that are an impediment to any possibility of unravelling the terms of public debate

Certain analysis has led some researchers to argue that simply defining the notion of the public sphere is insufficient for this situation. **Dahlgren** (2005) suggests it be replaced by the concept of civic culture. **Bennett** and **Pfetsch** (2018) believe that its framework should be reformulated, so that it is no longer characterised by a coherent and self-sufficient public sphere and media system. **Bimber** and **Gil de Zúñiga** (2020) define a public sphere by the lack of attention and capacity of the public to unravel the terms of public debate around a varied series of issues, in terms that evoke the traditional criticism of public opinion of the mass media-controlled society carried out by **Lippmann** (1922), but now focused on the communication model advocated by the new media, and particularly social networks.

Given the degradation of the previous model and the problems derived from the incipient model currently being outlined, **Schlesinger** (2020) prefers to speak directly of a post-public sphere. This space generates doubts and uncertainty, since the media intermediation crisis is not replaced by a comparable intermediation model, nor can we consider the public debate that currently exists being characterised by the search for a Habermasian, rational consensus. Conversely, today's public sphere is intertwined by various phenomena that complement each other –all with negative implications, according to the once undisputed intermediaries (i.e., the media and intrinsic political parties)–, leading to this crisis and the questioning of democratic values (**Palau-Sampio**; **López-García**; **Ianelli**, 2022). Thus, we have spent years talking about *populism* (a concept that is still difficult to define, despite all the debate surrounding it; or perhaps because of that); political *polarisation*, understood as the undermining of consensus and centrality to the benefit of opposing extremisms; the *fragmentation* of audiences – public and electorate groups; and, of course, *disinformation*, understood as a complex process that is not limited to issuing false information (*fake news*) that can be verified (*fact checking*), but which has far-reaching structural consequences in terms of the public's perception of reality, the configuration of our democratic systems and, effectively, the configuration of the public sphere (**Bennett**; **Livingstone**, 2018; **López-García** *et al.*, 2021; **Valera** *et al.*, 2022).

4. Quality of information and democracy

The multiple challenges posed by disinformation have especially highlighted the inevitable link between quality journalism and democracy (**Casero-Ripollés**, 2016) and its status as a cornerstone in democratic states (**Allan**, 2009; **Schudson**, 2008). To a large extent, this relationship has been forged by the capacity of journalism to offer truthful information, based on public interest, respect towards the ethical principles of the profession, and its contribution to public debate (**Schudson**, 2015). Disinformation, in its desire to manipulate the facts in a biased manner and 'create' alternative realities (**Lewandowski** *et al*., 2017), not only violates the principle of truthful information, but also perverts its very nature and possibilities, adulterating and falsifying images, data, photographs or historical events in the so-called post-truth era.

Although disinformation has existed throughout the entire history of humanity, its intensity, immediacy and ubiquity in recent years have made it a major concern. Following the first warnings of its dangers, subsequent to the 2016 Brexit referendum (**Cervi**; **Carrillo-Andrade**, 2019) and the 2016 US presidential campaign (**Bovet**; **Makse**, 2019), this issue became a priority on the public agenda (*European Commission*, 2018), increasing in concern after Covid-19 and the ensuing *infodemic* (**Bechman**, 2020; **Zarocostas**, 2020).

5. Disinformation and disruption in the information industry

After decades of hegemony in mediation, practised by some internationally prestigious newspapers with obvious leadership (**Merrill**, 1968), the conventional media must now address the rise of disinformation at a time when they are clearly vulnerable, in a context of the greatest disruption ever experienced by the information industry since the beginning of the commercial press (**Lacy**; **Rosenstiel**, 2015). They do so mired in two serious crises, a financial one (**Curran**, 2010; **Picard**, 2014) and a social trust crisis. In recent decades, commitment to a commercial focus and growing politicisation have resulted in a diminishing confidence in the conventional media. This has resulted in minimum levels of credibility (**Lee**, 2018; *Edelman Trust Barometer*, 2021), and a frequent criticism of superficiality and loss of contact with reality.

However, at a time of profound and vertiginous changes, in the technological, economic and sociopolitical spheres, quality of information continues to be one of the essential pillars of democracy, as well as the main vaccine against disinformation and polarisation, in a hybrid context of communication (**Chadwick**, 2013), under a new paradigm of information consumption through social networks (**Casero-Ripollés**, 2018; **Mitchell** *et al.*, 2020). Despite this, when these issues are debated, the conditions that make access to truthful, contrasted and responsible information possible are often overlooked.

> *Disinformation is a complex process that* is not limited to issuing false information (fake news) that can be verified (fact checking), but has far-reaching structural consequences in terms of the public's perception of reality, and the configuration of our democratic systems

Journalistic quality is a complex and widely discussed topic, particularly in recent decades, where the emphasis has been on lamenting its decline (**Meier**, 2019). Three factors contribute to the difficulties in its definition. First, it has an intrinsically multi-faceted character, which requires a holistic treatment that must consider the conditions of production and its reception (**Gutiérrez-Coba**, 2006; **Pujadas**, 2011; **Gómez-Mompart**; **Palau-Sampio**, 2013). Second, different approaches have been taken to define it since its incorporation into the field of the media in the 1960s, not only from traditions that have emphasised one aspect or another –from results to social responsibility or technical conditions– but also from sector approaches by journalists, editors, audiences, politicians or judges, who apply different criteria or give them a different value (**Meier**, 2019). And third, the difficulties in delimiting the blurred limits of journalistic activity in the digital environment (**Malik**; **Shapiro**, 2017).

> The challenge of disinformation also decapitalises and threatens the role of watchdog journalism as a guardian to prevent abuse of power

Despite the ethereal nature of the concept of journalistic quality, **Meier** (2019) underlines the need to evaluate it according to the role of journalism in society, the values on which it is based (truth/factuality, relevance/context and independence). To this end, he establishes quality criteria that the journalistic product must meet: impartiality, diversity, transparency, interactivity, clarity, attractiveness, usefulness and prospective capacity (**Meier**, 2019, p. 4). **Spurk** sets out ten conditions, which include: variety of sources, identification of issues beyond the official agenda, inquisitive questions, clarity of approach, good formal structure, contextualisation of data, diversity of approaches, furthering the root causes of the issues and historical background, variety of viewpoints and, if relevant, the response from the parties involved (**Spurk**, 2019, pp. 28-29).

6. Precariousness and professional 'decapitalisation'

Journalistic quality requirements are largely inspired by a regulatory approach to professional practice (**Kovac**; **Rosenstiel**, 2007) and intrinsically appeal to specific production conditions to manifest. In this sense, an evaluation of the quality of journalistic content cannot be separated from the economic and business model crisis that media companies have had to navigate for almost 15 years, in a sector undergoing an ill-fated radical transformation, presided over by uncertainty (**Currah**, 2009; **Franklin**, 2014; **Pavlik**, 2013), productive disruption (**Anderson**; **Bell**; **Shirky**, 2014; **Ryfe**, 2019) and the search for formulas that facilitate sustainability.

The crisis has resulted, on one hand, in a drastic decline in advertising revenues –a decrease of 64% since 2007– to 2.47 billion euros in 2020 (*Infoadex*, 2020); and on the other, as a consequence of the above, in a significant destruction of employment, fuelled by the closure of media outlets and the dismissal of journalists. Media jobs between 2008 and 2013 fell by 23%, and recovered only slightly by 3% until 2017. The relative improvement was cut short, however, by Covid-19 (*MPA*, 2020) and there was an announcement of new cuts to survive the post-pandemic era, a circumstance that some define as journalism being in a state of emergency (**García**; **Matos**; **Alcântara-da-Silva**, 2021).

The challenge of disinformation also decapitalises and threatens the role of watchdog journalism as a guardian to prevent abuse of power. The relative recovery of employment has not contributed to a reinforcement of human resources assigned to this role, and this impacts the growing responsibility placed on communication offices. It results in a reverse effect of greater influence of public relations on the editorial content of the media: increasingly rickety newsrooms with a similar volume of work are fertile ground for press releases, as different studies have highlighted (**Macnamara**, 2016; **Sallot**; **Johnson**, 2006). Faced with such a scenario, investigative journalism (**Waisboard**, 2001) has become a utopia.

The precariousness and 'de-professionalisation' experienced by journalism globally (**Witschge**; **Nygren**, 2009; **De-Peuter**, 2011) not only has an impact on professional careers (**Deuze**; **Witschge**, 2018; **Örnebring**; **Moller**, 2018), but also on professional values, regulating them to second place after commercial (**Goyanes**; **Rodríguez-Castro**, 2019) and financial priorities, while blurring the essence of journalistic work (**Witschge**; **Nygren**, 2009; **Evett**, 2003), with a growing weight of professional hybridisation. The rise of branded content, embraced as a journalistic lifeline by the media (**Ferrer-Conill**, 2016), supposes a perversion of professional values –both because of it mimicry of content and exercise of ventriloquism (**Hardy**, 2017)– by handing the choice in style of delivery and editorial power of the content it includes over to brands (**Palau-Sampio**, 2021).

The magnitude of the above shows the extreme fragility of the media sector and the disastrous consequences (**Casero-Ripollés**, 2014) that this entails. Some 78% of Spanish journalists claim to have suffered pressure while exercising their profession (*APM*, 2020, p. 39). Self-censorship is a recurring mechanism for almost six out of ten journalists. In fact, eight out of ten people surveyed have opted for favourable news coverage in exchange for advertising, either sporadically (49%) or frequently

> An evaluation of the quality of journalistic content cannot be separated from the economic and business model crisis that media companies have had to navigate for almost 15 years, in a sector undergoing an ill-fated radical transformation, presided over by uncertainty, productive disruption and the search for formulas that facilitate sustainability

(31%) (*APM*, 2020, p. 39). These figures are reflected in journalists' perception when they define their professional problems, with two main points reiterating the fragility of the sector. First, poor pay, unemployment, precariousness, and intrusiveness (42%); and second, threats to quality: lack of rigour and neutrality, and political or economic independence, increased workload and excessive working hours (53%) (*APM*, 2020, p. 35).

> The conventional media must now address the rise of disinformation at a time when they are clearly vulnerable, in a context of the greatest disruption ever experienced by the information industry since the beginning of the commercial press

7. Distancing and lack of credibility

Several international studies have revealed the chain of factors that connects the precariousness of working conditions and a reduction of journalistic standards, in a downward spiral that also feeds the detachment of the audience from the media (**Lacy**; **Rosenstiel**, 2015; **Costera-Meijer**; **Bijleveld**, 2016; **Newman**; **Fletcher**, 2017). The work context described shows how difficult it is to produce an in-depth development of any issue, to which the necessary time cannot be dedicated. This, together with excess overtime, manifests in factual errors and mistakes caused by the immediacy, improvisation and, often, lack of contrasting information. This has repercussions on the credibility of the media, afflicted by insufficient transparency in the use of information sources, which often remain unclear when their origin and verification are not reported (**Lacy**; **Rosenstiel**, 2015; **Newman**; **Fletcher**, 2017).

The scant representativeness of the content published by the media and the difficulty in reflecting increasingly multicultural societies are two more reasons for such a detachment. The media are seen as part of the elite, associated with partisanship, a group that furthers campaigns and hidden agendas representing only biased political or commercial interests (**Newman**; **Fletcher**, 2017). Added to this is the commitment to capture digital audiences through *clickbait* (**Palau-Sampio**, 2016), a formula to counteract the financial weakening experienced by media companies (**Freelon**; **Wells**, 2020), which contravenes professional principles and results in a trivialisation of information and a distortion of the work of these media companies in a democratic society (**Tandoc**; **Thomas**, 2015; **Welbers** *et al*., 2016).

Recent studies have highlighted the need to continue delving into the role of the media against disinformation (**Blanco-Herrero**; **Arcila-Calderón**, 2019). This implies going further than relying on verification platforms and *fact-checkers*, as the responsibility of that mission falls to the media, which they have resigned for the sake of a journalism based on statements (**Escolar**, 2015) that often serves as a loudspeaker for disinformation and contributes to the increase of noise. Faced with such stridency and dangers of information manipulation, journalism now faces the challenge of becoming valuable to society again (**Costera-Meijer**, 2021; **Bimber**; **Gil de Zúñiga**, 2020), and this involves (r)establishing a new relationship (**Costera-Meijer**; **Bijleveld**, 2016) based on valuing the content it offers and restoring lost credibility.

8. In conclusion

The current communicative crisis is far from being a model for a democratic co-existence. And although communication is simply one ingredient in a complex and multi-factorial issue, the repercussions of its misuse are widely felt when dealing with a growing and destabilising political and social phenomena, such as polarisation, disinformation or populism.

The difficulty of the traditional media to resolve the problems of unidirectional mediation and to offer a journalism that has social value has aggravated the public's detachment towards them, which has in turn resulted in a notable loss of credibility. This constitutes an intangible value on which, to a large extent, the link between journalism and democracy has been built, based on the public's trust in the capacity of the media to offer truthful, contrasted information of public interest –or, in other words– trust in journalists and the media's ability to provide quality content that allows them to make informed decisions. The limitations to this work have not, however, been compensated in the new scenario due to digitisation and the multiplication of public spaces; in fact, evidence points to the opposite, that there is now a greater difficulty in accessing issues of social relevance, to be found among a magma of content of questionable veracity.

Faced with this crisis in the communication system, in which conventional media have not always lived up to the social responsibility expected of them, and where new options have not managed to establish a reliable alternative either, we must urgently open a social debate on the need for quality information to guarantee democracy. Until now, fragmentary frames –limited to technological, political, economic, labour issues or fighting so-called fake news out of context– have blurred our approach to this key issue, which requires a broad social commitment on the basis of three axes: responsibility, demand and sustainability, to guarantee truthful, contrasted and responsible information. Without a consensus for such an essential service, the *disinformation society* shows signs of becoming the definitive paradigm.

> Several international studies have revealed the chain of factors that connects the precariousness of working conditions and a reduction of journalistic standards, in a downward spiral that also feeds the detachment of the audience from the media

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Brussels will pay for everything. The shaping of the European public sphere before *NextGenerationEU*

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Abstract

The Covid-19 pandemic meant challenges in crisis management for democratic institutions such as the European Union (EU). To achieve an economic and social recovery to the crisis, the EU institutions have promoted the *NextGenerationEU* (*NGEU*) program, a massive recovery package for this purpose. This action takes place at a time of strong visibility of Euroscepticism within a global phenomenon of distrust in political authorities. The present work aims to know the shaping of the European Public Sphere when *NGEU* is launched. First, the evolution of EU support during the pandemic is described, analyzing the possible factors that influence on this variable. On this matter, a secondary analysis of data is applied on different waves of the *Eurobarometer* (*EB 92*, *93*, *94* and *95*). The statistical method is also used to give items that determine the image of the EU. Moreover, the communicative dissemination of this plan is drawing upon semi-structured interviews with some of the professionals who deal with the task. The objective is to provide an overview of how the public sphere made up of citizens and institutions is defined before a moment of symbolic relevance. The results reveal a trend towards greater positivity with the EU after the pandemic. However, among other possible factors, the degree of support depends on the ideological position and, to a lesser extent, on the type of community where the citizens live. EU officials assess this rise of Europeanism as an opportunity, targeting the *NGEU* communication campaign especially at young people.

Keywords

Institutional communication; Public opinion; European public sphere; Opinion polls; Semi-structured interviews; Europeanism; Euroscepticism; *Eurobarometer*; Covid-19; Pandemics; *NextGenerationEU*; European Union.

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1. Introduction

The Covid-19 pandemic has posed a huge communication management challenge for democratic institutions, including international organizations such as the European Union (EU) that could play a fundamental role in overcoming this crisis. After an initial focus on the health dimension (**Wang**; **Hao**; **Platt**, 2021), the messages of governments and EU institutions developed to address how the pandemic could be overcome in economic and social terms (**Hancu-Budui**; **Zorio-Grima**; **Blanco-Vega**, 2020).

In the case of the EU, on 21 July 2020, the *European Council* approved the *NextGenerationEU* (*NGEU*) program, a €750 billion recovery fund to be used between 2021 and 2023. This financial package is considered to represent an unprecedented measure at the European level, being the first supranational aid program based on EU bonds (**Codogno**; **Van-den-Noord**, 2020). This step towards greater integration is occurring in a context of rising Euroscepticism, with strong visibility following Brexit (**Caiani**; **Guerra**, 2017).

This development of movements contrary to the European project parallels a process of polarization and discrediting of the traditional political class (**Bennett**; **Pfetsch**, 2018; **Bimber**; **Gil de Zúñiga**, 2020), which connects with an acceleration of public communication. Populist forces find in social networks a way to undermine trust in democratic institutions (**Bruns** *et al.*, 2016; **Crilley**; **Gillespie**, 2019), through the dissemination of false or inaccurate messages in line with their interests (**Pérez-Curiel**; **Velasco-Molpeceres**, 2020). One of the biggest recent examples of this was Brexit, where such actors linked the EU to the concept of "crisis" (**Krzyżanowski**, 2019) and achieved a result in favor of their interests in the 2016 referendum.

The economic recession in the early 2010s already represented a threat to the legitimacy of the European project (**Brosius**; **Van-Elsas**; **De-Vreese**, 2019). In this regard, the literature highlights a growing politicization of the debate on the EU, deriving from the fact that the EU increasingly deals with ideologized issues (**Hutter**; **Kriesi**, 2019). The particularities of this entity, comprising a set of supranational institutions based on the Member States, mean that they are not regarded homogeneously in terms of polarization (**Fletcher**; **Cornia**; **Nielsen**, 2020). In most countries, a "permissive consensus" has been observed over the years, whereby European integration receives tacit support from citizens, accompanied by limited knowledge of its functioning (**Ares**; **Bouza**, 2019).

This raises the question of how European public opinion might understand and value the ambitious *NGEU* plan. At the start of the pandemic, the EU suffered from strong criticism for an alleged lack of solidarity (**Nielsen** *et al.*, 2020). Faced with this, initiatives such as the *NGEU* can drive Europeanist visions that assume the concept of "Europe" as a solution (**Kermer**; **Nijmeijer**, 2020). In this context, this study aims to contribute to the state of the art by describing the evolution of support for the EU during the years of the pandemic and analyzing the social factors that condition it. It also explores the communicative dimension of the mentioned investment plan through interviews with professionals from EU institutions. The aim is to shed light on how the European public space (formed of citizens and institutions) is structured at this important time.

2. Background

2.1. Limitations and possibilities of the European public sphere

When addressing the genesis of public opinion around the EU, it is common to refer to the concept of the European public sphere (EPS). This notion alludes to the existence of a deliberative space shared by the political class, the media, and citizens and that provides legitimacy to the European project (**Herkman**; **Harjuniemi**, 2015). Following the Habermasian conceptualization of public spheres, citizens in this common space act as holders of democratic legitimacy (**Habermas**, 1962).

Despite this constructed character of the concept of public spheres, the EPS is widely cited in literature as the ideal on which the European political system is based (**Gil de Zúñiga**, 2015; **Rivas-de-Roca**; **García-Gordillo**, 2021). One of the main problems related to its development is the greater media interest in affairs of state (**Lloyd**; **Marconi**, 2014), in addition to the different national conditions that determine perceptions of the EU (**Vaccari**, 2017). This lack of interest in such issues is linked to the usual interpretation of European elections as second-rank, despite their gradually increasing relevance (**Risse**, 2015).

The *European Parliament* (*EP*) elections are regarded as an exceptional symbolic moment of European political communication. Several studies have analyzed the ability of this democratic event to foster a shared sphere, albeit with inconclusive findings. On the one hand, this electoral campaign represents a moment of visibility for European politics (**Boomgaarden**; **De-Vreese**, 2016; **Braun**; **Schäfer**, 2021). On the other, transnational debates at the EU level remain restricted to an elitist minority (**Rivas-de-Roca**; **García-Gordillo**, 2020), which is also repeated during the legislature in the work of MEPs, including their management of Covid-19 (**Tuñón-Navarro**; **Carral-Vilar**, 2021).

> The ambitious *NGEU* plan raises the question of how a potential European public opinion is articulated in the face of such a transnational recovery program

To address this political conception of the EU as segmented and rooted in statehood, the EU institutions have implemented an active communication policy, including elements of self-analysis related to the hypothetical European public opinion, such as the *Eurobarometer* (**Andrino-San-Cristóbal**, 2014). During the last decade, both institutions and academia have focused on the role played by social media in the EPS, including the remarkable digital influence of the candidates to chair the *EU Commission* (*Spitzenkandidaten*) during the *European Parliament* elections (**Nulty** *et al*., 2016; **Vesnic-Alujevic**, 2016).

Beyond the electoral period, social networks seemed to exhibit certain characteristics that could favor the emergence of a transnational sphere such as the EPS. Such channels include Europeanized debates that transcend the institutional sphere (**Bossetta**; **Segesten**; **Trenz**, 2017; **Hänska**; **Bauchowitz**, 2019). However, the achievement of a true European digital democracy seems distant because of the persistence of structural deficiencies related to a lack of identification with the EU (**Sarikakis**; **Kolokytha**, 2019). Optimism about a new type of public discussion on the internet clashes with the evidence that a large fraction of the citizens remain unaware of the EU's basic institutional mechanisms (**Gattermann**; **De-Vreese**, 2020).

The main consequence of this is the difficulty that the media and voters face in attributing responsibilities within European politics (**Goldberg**; **Brosius**; **De-Vreese**, 2021). This acts as a brake on the accountability required by any democratic system, maintaining the EU's traditional deficit in this area at a time when digital technologies are opening the way for greater participation (**Hennen**, 2020).

2.2. The rise of Euroscepticism in a multilevel Europe

In a Europe with competences segmented between local, national, and supranational political authorities, the EU has been criticized in recent years because of the gap between the European elite and the people, associated with national public spheres (**Tuñón-Navarro**; **Oleart**; **Bouza-García**, 2019). Eurosceptic narratives have emerged with particular virulence in countries that have a complex relationship with the European project [the Atlanticist position of the United Kingdom vis à vis the continent, the communist legacy and late democratization of the Visegrád countries (Czech Republic, Hungary, Poland, and Slovakia), etc.], but that also permeate European public opinion as a whole (**Caiani**; **Guerra**, 2017).

Although the development of such Euroscepticism can be located within a global populist wave (**Bennett**; **Pfetsch**, 2018), the EU itself has also been subject to strong turbulence, including the debt crisis, refugee management, or Brexit, which have heightened this process. All these events had high levels of visibility and resulted in controversy for a European project that, as discussed above, was thitherto based on "permissive consensus" (**De-Wilde**; **Laupold**; **Schmidtke**, 2016). The presence of EU issues has led to a politicization related to the EU (**Risse**, 2015), to the point that some issues such as climate change, the economy, or immigration can act as fissures that influence voting in European elections (**Braun**; **Schäfer**, 2021).

Such politicization favors the consolidation of the EPS by contributing to the idea of inclusiveness, that is, to citizens' feeling issues as their own and being informed about them, following **Habermas** (1962). The flip side is that this can also generate excessive polarization based on manipulated information, thereby undermining confidence in EU institutions and creating a wholly negative attitude toward their policies. According to **Treib** (2021), Euroscepticism is a long-term cultural phenomenon based on the construction of a central–periphery axis in European politics. Note that important divergences are also observed, mainly resulting from the ideological orientation of the parties that spread such messages in Europe (**Alonso-Muñoz**, 2020).

This proliferation of Euroscepticism occurs in a hybrid communicative framework in which conventional media coexist with new technologies in shaping public opinion (**Langer**; **Gruber**, 2021). Academia has extensively considered the ability of social media to drive polarization, although recent contributions have indicated that this process can also operate the other way around, with polarization motivating a certain use of such platforms (**Nordbrandt**, 2021). The preceding rise of Euroscepticism would thus explain a digital conversation that favors its interests.

The frames of populist discourse are not exclusive to political actors linked to the extreme right or left, but rather include all kinds of political figures. This was demonstrated during the Covid-19 crisis, when presidents with various political leanings applied such methods (**Manfredi-Sánchez**; **Amado-Suárez**; **Waisbord**, 2021). EU institutions themselves appear to have taken a more proactive step in this direction, thus the former apathy towards the EU could move toward more positive and negative approaches.

The usual inability of European institutions to set the public agenda, which stemmed from the absence of a shared communication strategy (**Bouza-García**; **Tuñón-Navarro**, 2018), collided in 2020 with a health pandemic and an infodemic of disinformation. This double crisis could strengthen populist actors but will also determine the main political actions of the EU in the years to come (**Tuñón-Navarro**; **Bouza-García**, 2021), as demonstrated by the *NGEU* program. The wave of information disorders brought about by the pandemic was characterized by the use of data with some kind of empirical basis (**García-Marín**, 2020), although a reduction in inequalities in access to news content has also been noted (**Casero-Ripollés**, 2020).

Increased information consumption may have positive implications for public awareness, including in the EU. In addition, the European situation of increasing politicization and thus polarization opens interesting prospects regarding the reconfiguration of the EPS. Considering that these changes do not allow hypotheses to be defined based on the literature, we establish the following research questions herein:

RQ1. What has been the impact of the Covid-19 pandemic on support for European integration?

RQ2. Which factors may motivate perceptions of the EU?

RQ3. What are the communication objectives according to those responsible for the *NGEU* program?

3. Methodology

The methodological design of this study is based on a triangulation of research techniques, combining secondary data analysis with semistructured interviews. For the statistical analysis, we apply the results of four waves of the *Eurobarometer*:

1) The *Standard Eurobarometer 92* (autumn 2019). This survey was conducted between 14 and 29 November 2019. The final sample of responses was 32,510 people from 28 countries using a stratified system to analyze 1,001 variables.

2) The *Standard Eurobarometer 93* (summer 2020). This study was conducted between 9 July and 26 August 2020, with partially remote interviews due to the pandemic. The sample reached 26,681 individuals from 27 Member States, because of the departure of the UK in January 2020, applying a stratified system.

3) The *Standard Eurobarometer 94* (winter 2020–2021). This survey was conducted between 12 February and 18 March 2021. Interviews included 27,409 people (in person or virtually) from all 27 Member States, based on a stratified sample. The data from this wave are used to evaluate the interaction between the variables, being the last one whose database is accessible to the authors and having been carried out after the *NGEU* initiative was approved.

4) The *Standard Eurobarometer 95* (spring 2021). This survey was carried out between 14 June and 12 July 2021, in hybrid (face-to-face/virtual) form in the 27 Member States. A total of 26,544 interviews were conducted in these countries.

The sample error of all the *Eurobarometer* waves applied herein was ±1.4% for a 95% confidence level. Note that these surveys target citizens from the age of 15 years. The *EU Commission* has carried out this transnational and longitudinal study since 1973, with the aim of monitoring public opinion regarding the EU. The survey is published twice each year (in spring and autumn), although Covid-19 modified this. The *European Commission*'s *Directorate-General for Communication* (*DG COMM*), and in particular the *Strategy, Corporate Communication Actions, and Eurobarometer Unit*, is responsible for its design, while the company *Kantar Public* was responsible for its implementation during the analyzed period.

The *Eurobarometer* has *Standard* and *Special* editions. The former queries opinions and attitudes about European integration, its institutions, and concrete policies, as functions of the basic sociodemographic variables of the respondents. Each survey includes approximately 1,000 interviews per country as well as separate samples for historically unique territories such as Northern Ireland or the former East Germany. In addition, for some variables, 12 additional countries and territories are included, such as candidate countries seeking accession or the UK. Meanwhile, the *Special Eurobarometer* addresses specific issues such as the environment, the economy, or technology, at given time points.

For this study, three dependent variables were extracted from the *Standard Eurobarometer*:

- The image of the EU: Three categories were included here: positive, neutral, and negative or don't know (DN). Intermediate levels are recoded to improve representativeness. Thus, "positive" and "quite positive" are combined into a single category called "positive," while "quite negative" and "negative" are grouped under the term "negative."
- Trust in public institutions. Three categories are applied, indicating preference for the European Union, the national government, or the national parliament.
- Opinion regarding the future of the EU. Three categories are used: optimism, pessimism, and don't know (DN).

Using these classic variables, which appear continuously in the *Eurobarometer*, a secondary data analysis is applied to evaluate their evolution throughout the pandemic. The results are also compared with the data for the "effectiveness of the *NextGenerationEU* program," which was included in the *Eurobarometers 94* and *95*.

Another aim of this study is to identify possible explanatory factors for the different social viewpoints regarding the EU. For this, two independent variables are used:

- Ideological positioning. This is divided into six categories, with the variable being recoded to generate more significant constructs: extreme left, center left, center, center right, extreme right, and nonaligned.
- Size of locality. This is divided into three categories: large cities, medium-sized towns, and rural areas.

These variables are applied because the literature refers to them as elements relevant to Euroscepticism (**Treib**, 2021), interwoven with the clash between cosmopolitan and traditional values, beyond sociodemographic criteria such as age or income. Although the *Eurobarometer* includes other ordinal variables, such as frequency of internet use or social class, we believe that the ideological dimension and locality of residence will be better linked to possible explanatory factors of European sentiment. This is based

> In recent years, the EU has been criticized for pointing to a gap between the European elite and the people

on the rooting of Euroscepticism in national policy issues (**De-Vries**, 2018). The *Eurobarometer* includes numerous nominal variables such as gender, occupation, or educational level, but this research aims to understand the relationship between the categories in the survey where order is relevant. This is the case of the "Image of the EU" itself, as an indicator of support for European integration.

Table 1. Interviewee profile (%)

Institution	Years of experience in the EU	Position
European Parliament	2	Communication assistant
European Parliament	31	General manager
European Parliament	12	Press officer
European Parliament	5	Communication assistant
European Commission	14	Press officer
European Commission	5	Project manager
European Commission	16	Unit head
European Commission	30	General manager

In this research, comparative statistical analysis (**Casero-Ripollés**, 2017) is applied for *Eurobarometer 94* between the independent variables "Ideological positioning" and "Community size" (X) and the dependent variable for the "Image of the EU" (Y), interpreted as the most important descriptor of the level of Europeanism. The statistical analysis was carried out using *IBM SPSS* statistics software version 28. The Spearman correlation coefficient (ρ) was also calculated for ordinal variables, describing the degree of dependence and the relationship between them. This coefficient acts as a nonparametric measure describing the rank correlation. It is implemented using two-way tests, for which the null hypothesis is that X and Y are mutually independent. Results close to 1 indicate statistical dependence between the dataset (ranking) provided by each variable.

Regarding the aim of determining the communicative objectives of the *NGEU* program, we carried out semistructured interviews with some of its managers. This method, typical of exploratory approaches, allows us to delve into the motivations underlying such communicative activity (**Weiss**, 1994). Snowball sampling (**Noy**, 2008) was carried out, aimed at professionals working in EU institutions whose functions include communication of the *NGEU*. This fieldwork was carried out between April and July 2021 through online interviews.

The sample includes eight interviews (four from the *European Parliament* and four from the *European Commission*), at which point possible saturation was detected in the sense that the informants did not seem to add new data. The interviewees were selected based on their different degrees of responsibility for the common task of EU communication, thus also including senior roles that could provide a more strategic overview of such work. Table 1 presents the profile of each interviewee, respecting their confidentiality since some agreed to participate only under the condition of anonymity.

The qualitative content was subject to thematic analysis to identify common patterns (**Braun**; **Clarke**, 2006), applying the phases defined by the cited authors: familiarization with the answers, production of the initial codes, search and review of topics, and drafting of the final report. The interview sessions were structured into four sections:

1) previous experience,

2) importance of *NGEU* in their daily work,

3) citizens' vision of the EU, and

4) future challenges facing the European project.

Table 2. Questionnaire for semistructured interviews (%)

Theme	Dynamic questions
Previous experience	1. Have you always been involved in the field of European affairs? In which other institutions/companies have you worked?
	2. How long have you been in the institution? What is your exact role?
The importance of the *NGEU* in your daily work	3. What is your daily professional activity?
	4. Which subjects are the focus of your work? Does current affairs set the agenda?
	5. * Alludes to the role of disinformation related to the *NGEU* according to the response.
	6. How are messages segmented, i.e., by age, socioeconomic issues, etc.? How is this information distributed?
Citizens' vision of the EU	7. What view do you think citizens have of the EU in the aftermath of the pandemic?
	8. What factors may contribute to a greater/lesser degree of Europeanism?
	9. How do you rate the way in which the EU processes information?
	10. Do you think that the work of institutions on social media can increase citizen participation?
Future challenges facing the European project	11. What future challenges does the EU face in terms of communication?
	12. *Reference to the function of journalism *versus* unmediated communication, according to the response.

These sections formed part of the semistructured questionnaire applied in this work (Table 2). The qualitative information was processed using *Atlas.ti* software version 9, aimed at research adopting this methodology. A single hermeneutic unit was created to delimit common codes and locate possible perspectives in a more intuitive way than by manual analysis. Also, the network of relationships between the main codes is presented visually. The *Eurobarometer* data were then compared with this material to provide an overview of the communicative environment surrounding the *NGEU* funding plan.

Increased confidence in the EU is higher than experienced for national public authorities during the Covid-19 pandemic

4. Results

4.1. The effect of the pandemic on public support for the EU

The image of the EU appears to have been strengthened during the unexpected Covid-19 pandemic. The percentage of respondents who made a positive assessment of the European project increased by three percentage points since the 2019 edition (Table 3). The *Eurobarometer 93* data suggest that, initially, in 2020, the pandemic corresponded to a slight decline in the assessment of the EU. However, there was then a rebound in the winter of 2020–2021 (*EB 94*), which may have been driven by the creation of the *NGEU* program for economic recovery, but also by the management of the vaccination program by the EU.

Table 3. Image of the EU among citizens (%)

	EB 92 (2019)	*EB 93* (2020)	*EB 94* (2020–2021)	*EB 95* (2021)	Covid variation
Positive	42	40	**46**	45	+3
Neutral	37	**40**	38	38	+1
Negative	**20**	19	15	16	-4
Don't know	1	1	1	1	0

The highest percentage for each variable is shown in **bold**.

Also noteworthy is the lower presence of negative perceptions, which is practically similar to the increase in positivity regarding the EU. Although the margins of improvement seem modest, the European project has not seen its image diminished by the pandemic according to the data considered herein. Indeed, the EU enjoyed a greater increase in trust in its institutions than is the case for national bodies. In linear terms, trust in the EU increased by up to six percentage points (Table 4).

Table 4. Trust in public institutions (%)

	EB 92 (2019)	*EB 93* (2020)	*EB 94* (2020-2021)	*EB 95* (2021)	Change after Covid
European Union	43	43	**49**	**49**	+6
National government	34	**40**	36	37	+3
National parliament	34	36	35	35	+1

The highest percentage for each variable is shown in **bold**.

The data also reveal that, at the beginning of the pandemic (*EB 93*), national governments were the main source of trust. These authorities were responsible for managing everything related to health control measures, which resulted in a strengthening of support for them, which was diluted in the following waves analyzed (*EB 94* and *EB 95*). On the other hand, trust in the EU remained unchanged in the summer of 2020, but increased in 2021 when the end of the pandemic was closer thanks to vaccines, at the same time as the *NGEU* program was being implemented.

The *Eurobarometer* data indicate an increase in the level of trust in all the mentioned public institutions, remarkably so in the case of the EU. This is linked to the finding that optimism about the future of the EU also increased (Table 5). This variable was not queried in the edition 2020–2021 winter, but its inclusion in the rest of the available material (*EB 92*, *EB 93*, and *EB 95*) reveals a significant upward variation, from a frequency of 58% in 2019 to 66% in 2021.

The optimism detected, coupled with the parallel drop in pessimistic positions, is remarkable. The largest percentual changes in positive perceptions are found for trust in public institutions and the future of the EU rather than the image of the EU, an abstract notion in which the driving factors of the Europeanism–Euroscepticism axis come into play (**Höpner**; **Jurczyk**, 2015). However, the combination of these three variables indicates that citizens' perceptions of the European project improved during the course of the pandemic.

Table 5. Opinion on the future of the EU (%)

	EB 92 (2019)	*EB 93* (2020)	*EB 95* (2021)	Change after Covid
Optimism	58	60	**66**	+8
Pessimism	**38**	38	31	-7
Don't know	**4**	2	3	-1

The highest percentage for each variable is shown in **bold**.

4.2. Ordinal variables that affect the level of Europeanism

Euroscepticism is a cultural phenomenon related to positions that oppose the European project. That is why the image of the EU acts here as an independent variable that synthesizes public opinion toward the institutions. The statistical analysis indicates a moderately strong correlation between ideological positioning and the image of the EU. The Spearman correlation coefficient takes a value indicating a strong positive association (ρ = 0.65), with significance at the 0.01 level (two-way).

The results presented in Table 6 show that the proportion of negative perceptions was higher at either end of the sample (8.6% in the extreme right, 9.2% in the extreme left). It is noteworthy that the extreme left category also shows an above-average frequency of positivity (7.7%). This may be related to a greater incidence of Euroscepticism in far-right forces (**Hutter**; **Kriesi**, 2019).

Table 6. Effect of ideological positioning on the image of the EU (%)

		Positive	Neutral	Negative	Don't know	Total
Extreme left	Count	1,086	582	360	2	2,030
	% within the image of the EU	7.7	6.4	**9.2**	2.7	7.5
Centre left	Count	3,290	1,638	630	7	5,565
	% within the image of the EU	**23.2**	18.0	16.1	9.3	20.4
Center	Count	5,420	4,125	1,402	20	10,967
	% within the image of the EU	38.3	**45.4**	35.8	26.7	40.3
Center right	Count	2,901	1,497	883	12	5,293
	% within the image of the EU	**20.5**	16.5	**22.5**	16.0	19.4
Extreme right	Count	809	451	338	3	1,601
	% within the image of the EU	5.7	5.0	**8.6**	4.0	5.9
Nonaligned	Count	630	792	304	31	1,757
	% within the image of the EU	4.6	**8.7**	**7.8**	41.3	6.5
Total	Count	14,136	9,085	3,917	75	27,213
	% within the image of the EU	100	100	100	100	100

Above-average percentages in each row are shown in **bold**.

Continuing with the discussion above, in the center right, there are outstanding values for a positive image (20.5%) and negative image (22.5%), while in the center left, there are only positive visions (23.2%). Therefore, negativity is also found to be right-oriented in the central part of the political spectrum. A neutral image of the EU appears significantly in people with a centralist ideology (45.4%) and those without a defined position (8.7%), evidencing the correlation between ideology and the perception of the European project.

According to these data, citizens who position themselves at the center of the political scale tend to express neutral views regarding the EU, while the extremes see a greater number of negative answers, particularly on the right wing. The formulation of positive responses for the center-right and center-left cases is of statistical interest. Indeed, it is exactly these ideologies, through the large Christian Democrat and Social-Democratic political families, that are identified as the great drivers of EU integration (**De-Wilde**; **Laupold**; **Schmidtke**, 2016).

The statistical analysis demonstrates a certain positive correlation in the effect of locality size on the image of the EU. The value of the Spearman's correlation coefficient indicates a moderate association (ρ=0.36), with significance at the 0.01 level (two-way). We find slight greater negativity in the rural sphere, with positive views of the EU emerging in large cities (Table 7).

Table 7. Effect of locality size on the image of the EU (%)

		Positive	Neutral	Negative	Don't know	Total
Large cities	Count	5,811	3,384	1,456	35	10,686
	% within the image of the EU	**41.1**	37.3	37.2	**46.7**	39.3
Med-sized locality	Count	4,771	3,290	1,388	23	9,472
	% within the image of the EU	33.8	**36.2**	35.4	30.7	34.8
Rural areas	Count	3,554	2,411	1,073	17	7,055
	% within the image of the EU	25.1	**26.5**	**27.4**	22.6	25.9
Total	Count	14,136	9,085	3,917	75	27,213
	% within the image of the EU	100	100	100	100	100

Above-average percentages in each row are shown in **bold**.

> The ideological orientation and, to a lesser extent, the territory of origin, influence the image of the European project

Rural populations rank above average regarding a neutral (26.5%) or negative (27.4%) image, although the difference between these percentages is small. In contrast, a slightly neutral perception (36.2%) stands out for med-sized localities. The latter category is characterized by wide variety in the count values, in contrast to the large cities. Indeed, the responses of positivity (41.1%) and "don't know" (46.7%) stand out in such cities. The highest frequency of positive perceptions of the EU thus occurs in large urban centers, despite a significant fraction of noncommittal responses.

The finding of only a moderate correlation between locality size and the image of the EU suggests that this independent variable is influenced by other factors that transcend territory. The clash between cosmopolitan and nationalist values, typical of populism and Euroscepticism, is not found only for urban populations, although the data indicate that the population of large cities is more positive about the EU. In addition, they are less daring when it comes to expressing their opinion.

A negative image of the European project is only reported to a significant extent in rural areas, leading to the conclusion that it is the inhabitants of such areas who might develop a more skeptical prior assessment of EU funding programs such as the *NGEU*. The danger for the European project is a schism between countryside and city, resulting in mistrust in the rural territories that receive a large fraction of *European Commission* funds.

Eurobarometers 94 and *95* provide data on the citizens' views of the effectiveness of the *NGEU* program. According to its sample across 25 countries, the majority of respondents believe that it will be useful, reaching the highest levels of support in Malta (85%), Ireland (75%), and Poland (73%). In contrast, in Finland (58%) and Latvia (51%), more people think that this plan will not be effective. The results suggest that it is not the degree of urbanity that influences positive opinions of the program but rather the Europeanist tradition of the country (Malta and Ireland) or its dependence on European funds (Poland), notwithstanding the fact that a part of society favors EU integration in states that are a priori more Eurosceptic.

4.3. Motivations and objectives of the *NextGenerationEU* campaign

The European officials consulted stated that the management of the post-Covid-19 era had been the focus of their work in 2021, from a communication point of view. The aim is to convey the idea of a common route out of the crisis through the *NGEU* program and the *Conference on the Future of the EU*, in which different stakeholders from civil society participate to define the EU project in the years to come. Allusions to this conference were particularly made by those working in the *European Parliament*. According to their statements, the aim is to communicate progress and ensure that citizens have the information they need to participate, since the success of this proposal will depend on their involvement and sharing their ideas about the EU.

Professionals from both institutions described disinformation as a common problem that threatens the pillars of European integration. The proliferation of inaccurate messages is also related to the fact that a multitude of complex political events are crowded under the term "Brussels." In this regard, we find the problem of the remoteness of the EU as described in the theoretical framework, which is related to a tendency among journalists and citizens to view its institutions according to national parameters:

> "Some permanent challenges for us are multilingualism and the feeling of distance between Brussels and the Member States, which sometimes affects how the decisions of the institutions are communicated, as if they were a separate entity and not the democratic result of a level of governance that we have given ourselves to solve common problems in Europe" (general manager, *European Parliament*).

However, there is strong optimism among the officials interviewed regarding the image that citizens have of the EU in the aftermath of the pandemic. European funds have opened a window of opportunity for the European project, in which "Brussels will pay for everything" (codified as a utilitarian vision of the EU). According to the opinions gathered, this kind of European "manna from heaven" will allow a connection to be forged with layers of society hitherto forgotten in communication plans, such as young people or the most impoverished population groups.

Asked about the variables that may determine Europeanism, the sampled professionals highlight the difficulty of reaching the most rural areas, without mentioning ideology. This leads to the implementation of communication campaigns aimed at the fishing and agricultural sectors. However, all the interviewees commented that the communicative presentation of *NGEU* is eminently digital in both the *European Commission* and *Parliament*, aiming for a young audience that is far from the usual in rural communities. In this sense, social media profiles have been opened on channels such as *Instagram*, *TikTok*, and *Twitch*.

The target audience of the campaign is mainly Generation Z (aged 16–24 years). This implies that the communication work of the *NGEU* program is proactive and subject to constant change. The role assigned to social media networks as a means to end communication problems is prominent, as reflected in the network of codes generated using *Atlas.ti* (Image 1). Two of the officials interviewed acknowledged that this focus on young people is owing to the fact that they constitute the future of the European project, hence this attempt to obtain their support. However, they also argue that the opinion of young people in the EU is not very different from that of other potential age groups.

The approach of European institutional communication to the *NGEU* plan seems to be based on the fact that abundant funding will help to close this gap. In any case, this problem is compounded by the fact that the European public space has a strong presence of populist actors, who take every opportunity to present the EU as a scapegoat. The criticisms of the officials are not only directed at populism but also at journalistic activity, in which they demand a greater consideration of European dynamics:

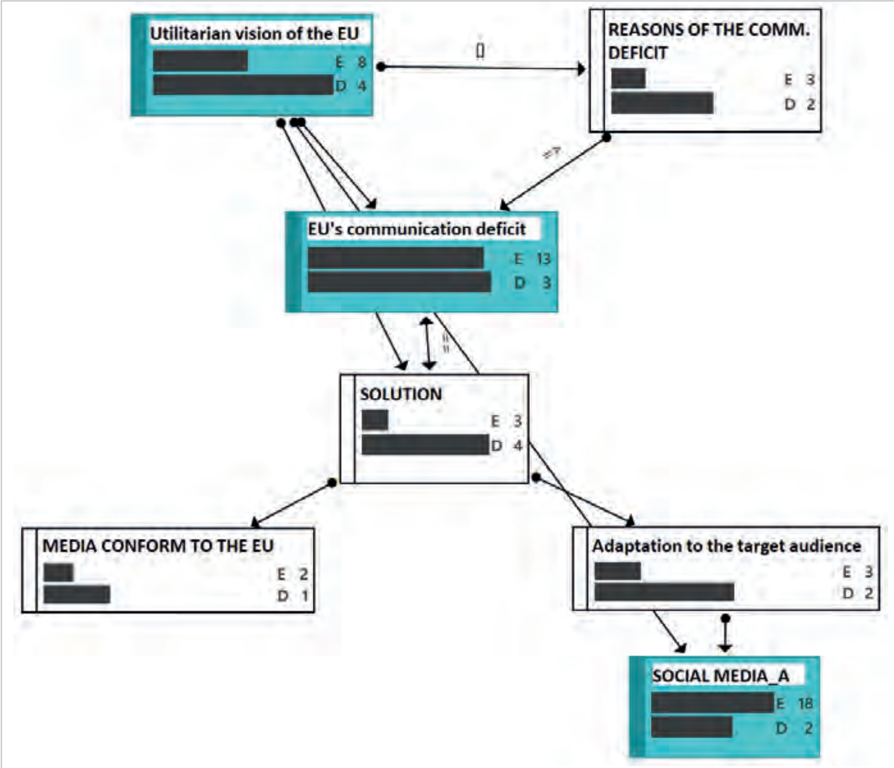

Image 1. Network of codes selected from the interviews.
*Codes in blue enjoy greater rooting and density in the sample.
Compiled with *Atlas.ti*

> "The media should try to understand a little better how the EU works, what its competences are, etc. Misreporting also contributes to misinformation. In the long term, this has a negative impact on how the EU is perceived by citizens" (communications officer, *European Commission*).

Although several interviewees showed awareness of the remoteness problems of the European project, all of them considered that Covid-19 has boosted confidence in EU institutions, in line with the findings based on the *Eurobarometer* results. In addition, they argue that digital tools can favor direct communication with the EU, which could end the cold and bureaucratic image of the EU. A lower attribution of social transfer capacity to the conventional media is thus observed.

In the interviews, strong optimism regarding the *NGEU* program is perceived, which may have to do with the corporate and propaganda function of the institutions. Some interviewees underlined that Brexit made the reversible nature of the European project palpable, highlighting the benefits of integration. The economic and social escape from the pandemic is interpreted in the same sense, although those working at the *European Commission* emphasize that the last decade has seen a long process to improve its democratic transparency.

5. Conclusions and discussion

On the basis of a combined analysis of the different waves of the *Eurobarometer* and the interviews with officials from EU institutions, the aim of this study is to deepen understanding of the configuration of European public opinion in the face of the ambitious *NGEU* funding package. This initiative stems from the need to provide funds to EU Member States in the aftermath of the pandemic. The impact of Covid-19 on support for European integration (RQ1) is thus first analyzed. The *Eurobarometer* data reveal an increase in positive assessments according to the variables for the "image of the EU," "trust in public institutions," and "opinion on the future of the EU" during the course of the health emergency.

The increase in trust in the European project is greater than that experienced by the national public authorities. However, trust in the institutions and optimistic opinion about the future of the Union enjoy higher percentage increases than the "image of the EU," which is classically considered to measure the degree of Europeanism. The longitudinal analysis reveals that the evaluation of the EU improved when vaccination was launched and the *NGEU* support program was defined (in the winter 2020–2021 and spring 2021 surveys), after deteriorating slightly at the start of the pandemic.

Regarding the elements that determine the image of the EU (RQ2), the findings reveal the existence of a strong correlation with ideological positioning, while the effect of locality size is moderate. Europeanism and Euroscepticism have a cultural dimension in which many factors are likely to be involved, but this second contribution reveals that citizens with more extreme ideological positions tend to value the EU in a negative way, something which is

> EU officials channel their efforts to make the youngest aware of the benefits of *NGEU*

repeated on a smaller scale in rural areas. It is in large cities that a positive view of the EU predominates, which may be related to the elitist character of the European project (**Sarikakis**; **Kolokytha**, 2019).

> Covid-19 can be identified as an example of the politicization of the European project with apparent positive consequences for its legitimacy

As a third contribution, those responsible for communication of the *NGEU* program report how the management of the post-Covid-19 era is a focus of their work, seeing this moment as an historic opportunity to motivate support toward the EU (RQ3). This communication campaign is purely digital and highly youth-oriented, with allusions also to the rural population. There is an uncritical confidence that the remoteness problem of the European project is being resolved, thanks to direct dialog with the public, although the evaluation of the *NGEU* plan is disparate among countries.

The analogy that some of the interviewees make with Brexit shows how politicized issues can serve as division lines at the European level, reinforcing the role of the EU. This is linked to a growing politicization of the EU, that is, a higher level of polarization with regard to its policies (**Hänska**; **Bauchowitz**, 2019). Situations of dissent would promote European sentiment, as phenomena such as Brexit have highlighted the benefits of belonging to the EU.

The statistical analysis of the data is consistent with previous literature on Euroscepticism (**Gattermann**; **De-Vreese**, 2020), although the effect of locality size is less (moderate) compared with that of ideology in constructing the image of the EU (strong). Both variables show a positive correlation in this direction. The development of a rural–urban duality that threatens European integration is something that the professionals interviewed are concerned about, without mentioning ideology. The communicative actions of these officials are usually carried out on social media, which are precisely the space in which populism operates most (**Nordbrandt**, 2021).

One aspect to take into account is the criticism of the *Eurobarometer* by a sector of academia that considers it to be propagandistic (**Höpner**; **Jurczyk**, 2015). The use of inappropriate questions, the bias in the answers, or the elimination of questions that revealed a negative view of the EU are some of the problems that have been identified. The fact that the *European Commission* is responsible for planning the survey already presupposes a certain source bias. However, the *Eurobarometer* is the only longitudinal study that has systematically analyzed public opinion in Europe, which explains its interest. Note that the present research had to be restricted to a few of its multiple variables because it prioritized the development of a methodological triangulation.

Another limitation of this work is the reduced scope of the interviews, resulting from the high specificity of the object of study. Knowledge of the motivations and communication objectives of the *NGEU* campaign is obtained here through in-depth interviews with officials responsible for it, but it would also be interesting to probe the opinion of other stakeholders that make up the Brussels political bubble. A broader statistical analysis could also have been designed, subjecting the data to the control of various variables, but the type of information provided by the *Eurobarometer* invited a joint effort to define an approach to public opinion throughout the pandemic that would also convey the functioning of potential key factors. This corresponds to the objectives of this research.

In conclusion, European public opinion is becoming more favorable in relation to the EU after the pandemic, just as *NGEU* funds are starting to work. Covid-19 can be identified as another example of politicization of the European project with positive consequences for its legitimacy, an increasingly recurrent finding in the literature. All the analyzed variables moved to some degree toward Europeanist positions between 2019 and 2021, although support for the European project is by no means homogeneous. Ideological positioning, in addition to the territorial dimension, proves to function as an explanatory variable of Euroscepticism. Nationalist values, more typical of rural communities, collide here with the multiculturalism attributed to the EU, in a dialog that marks studies on populism today.

The challenge for the European project is to ensure that this high level of support is not deflated by a failure to meet the resulting expectations. It is true that the politicization of the EU is a well-established feature, but it also seems that ignorance of the operating processes of European institutions remains common. This undermines the classic principles of democracy, which the Union may fail to respect, which merits consideration by EU authorities that, as mentioned above, claim to be working toward greater transparency. Communication actions related to the *NGEU* are rather geared toward young people, to derive value from a context that is favorable for the EU. The pandemic constitutes a turning point in the degree of support for the European project that could improve the EU's progress if critical knowledge is deepened, a possibility that should be confirmed in future research.

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Injecting disinformation into public space: pseudo-media and reality-altering narratives

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Abstract

This paper analyses the context of disinformation in Spain from the perspective of the pseudo-media (i.e., websites that mimic conventional media to offer partisan content based on alternative facts). Using a quantitative (*N* = 1,143) and qualitative (*n* = 396) methodology, this research analyses publications from eight Spanish pseudo-media that reach more than 4 million unique users. Results reveal an interest in three topics: vaccination, restrictions and speculation about Covid-19, national politics –focused on criticism against government– and topics related to human rights –mainly LGBTI, gender, immigration– with a total of 58.1% of the content published in four sections (International, Spain, Society, and Economy). The study reveals a growing trend towards polarisation and the use of clickbait techniques in four out of ten headlines. The Internet and social media are the most common sources quoted, while a third of the items lack sources or correspond to opinion pieces. Minorities and vulnerable groups are framed as a social threat, and the presentation of the coalition government as a danger to Spain that must be put to an end, which makes the discourse of these websites in tune with the ideology of the far right wing.

Keywords

Pseudo-media; Hyper-partisan Media; Cyber-media; Digital media; Polarization; Populism; Pandemics; Politics; Social minorities; Extreme right; Clickbait; Spain; Frames; Disinformation; Journalistic quality.

1. Introduction

The rise of disinformation and reality-altering narratives responds to a complex scenario where converging technological, political, social, and economic factors have favoured their proliferation and pose a threat to democracy (**Waisbord**, 2018; **Bennet**; **Livingston**, 2018; **Esser**; **Pfetsch**, 2020). While disinformation and manipulation have been in place since the dawn of public life (**Cooke**, 2017; **Tandoc**; **Lim**; **Ling**, 2018; **Andrejevic**, 2019), they have never had the resources to achieve a large-scale impact.

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Digital technology gave audiences the possibility of producing and disseminating content (**Gillmor**, 2004; **Bruns**, 2008), while depriving the conventional media of the role of mediation (**Couldry**, 2008) that they had exerted for decades. Thereby, the traditional filters of journalism (i.e., fact-checking, contrasting sources, deontology) were left at the expense of the 'networks of trust' interwoven in social media (**Tang**; **Liu**, 2015), with direct exposure to inaccurate, false, or malicious information (**Papadopoulos** *et al.*, 2016), or to backfeeding echo chambers and filter bubbles (**Pariser**, 2011; **Nguyen**, 2020). Concurrently, the development of computational techniques (**Van-Dijck**, 2014) geared to manipulate public opinion (**Howard**; **Woolley**; **Calo**, 2018) has sharpened the perils linked to information disorder (**Wardle**; **Derakhshan**, 2018).

> The term 'pseudo-media' highlights the deceptive nature of outlets that present themselves as alternatives to the mainstream media

In a context of de-mediatisation, marked by a consumption of information detached from conventional media (**Newman** *et al.*, 2020), these have also undergone the time of greatest disruption of the news industry since the beginnings of the commercial press (**Lacy**; **Rosenstiel**, 2015). In a hybrid media system (**Chadwick**, 2017), where traditional media also face a deep crisis of credibility (**Lee**, 2018; *Edelman Trust Barometer*, 2021) and of quality, we have witnessed the thriving of scores of websites linked to the spread of conspiracy theories, disinformation, and populism (**Van-Prooijen**; **Krouwel**; **Pollet**, 2015) coupled with initiatives of extremist ideologies (**Krouwel** *et al.*, 2017; **Douglas** *et al.*, 2019). This presence, palpable in the digital ecosystem both for web users and social media, can be regarded as "one example of an ongoing polarization and fragmentation of the political discourse in liberal democracies" (**Haller**; **Holt**, 2019, p. 1668).

The distrust towards legacy media correlates with the support to a populist agenda (**Mudde**, 2010; **Fawzi**, 2019), allied with a communicative style (**Schulz** *et al.*, 2018; **Boberg** *et al.*, 2020) that appeals to emotions (**Wirz**, 2018) and is grounded in anti-elitist attitudes, a preference for popular sovereignty, homogeneity, and an exaltation of peoples' virtues (**Schulz** *et al.*, 2018). **Waisbord** (2018) conceives of this moment in terms of "elective affinity" linked to a far-right spectrum that embraces "post-truth".

Against this backdrop, the aim of this article is twofold. Firstly, we wish to contribute to analysing and cataloguing one of the focal points of disinformation in Spain, channelled through the pseudo-media. Secondly, we intend to delve into their production logics, based on agenda-setting and framing, the formal characteristics of the published pieces and their role in the reinforcement of the polarisation and of the populist agenda.

2. Alternative facts and pseudo-media

The phenomenon of disinformation and the surge of alternative facts has pervaded the public sphere in recent years, particularly since the Brexit referendum in 2015 or the 2016 presidential election in the USA, to the point of igniting a veritable 'infodemic' in the wake of Covid-19 (**Boberg** *et al.*, 2020; **Brubaker**, 2020; **Zarocostas**, 2020). The widespread use of technology as a tool for dissemination (**Allcott**; **Gentzkow**, 2017) cannot be separated from an enabling political and social context. The rise of populism in various Western countries (**Brubaker**, 2017; **Moffitt**, 2020) and of political polarisation (**Kelkar**, 2019) has been accompanied by an ever-increasing presence of "alternative facts" through "statements on key policy issues that directly or indirectly contradict real facts" (**Barrera** *et al.*, 2020, p. 1), to the extent of drawing an association between populism and disinformation (**Hameleers**, 2020; **Tumber**; **Waisbord**, 2021).

The use of "alternative facts" is not exclusively reserved for populist politicians (**Barrera** *et al.*, 2020), nor is it confined to the political sphere (**Sethi**, 2017). They range from the denial of critical issues such as climate change to other trivial ones (**Kelkar**, 2019). Disinformation promotes the "fabrication" of contents "for the sake of earning money from clicks and views", but also deliberate misleading (**Cooke**, 2017, p. 1). The *European Commission* refers to "all forms of false, inaccurate, or misleading information" (*European Commission*, 2018, p. 3), which Bennett and Livingston define as "intentional falsehoods spread as news stories or simulated documentary formats to advance political goals" (**Bennett**; **Livingston**, 2018, p. 124).

In this intent to deceive are those websites that mimic the format of conventional media to provide expressly distorted content aimed at promoting certain ideological biases (**Palau-Sampio**, 2021). The term 'pseudo-media' identifies those sites that resemble "compositional forms and styles used by mainstream journalists" (**Rathnayake**, 2018, p. 3) for purposes antagonistic to journalist orthodoxy, while infringing the most basic journalistic conventions, such as the conflation of data and commentary, with an overt ideological bias (**Del-Fresno**, 2019). This term highlights the deceptive nature of outlets that present themselves as alternatives to the mainstream media ('countermedia'), although they often merely absorb contents and reframe them according to ideological interests (**Toivanen**; **Nelimarkka**; **Valaskivi**, 2021).

Pseudo-media turn rational dissent and democratic debate into unfounded criticism fuelled by value, emotion-based judgements, with the aim of generating mistrust (**Figenschou**; **Ihlebaek**, 2019). Kim and Gil de Zuñiga note that "pseudo-information", far from entailing a concern for "counter-information", in the classical and alternative sense, stands as a deliberate will to negatively influence the social context through "all types of false or inaccurate information" (**Kim**; **Gil de Zúñiga**, 2021, p. 165). This is important to avoid ambiguous associations. While the academic tradition on alternative media has placed the emphasis on those outlets that follow progressive or counter-hegemonic trends since the 1970s

(**Atton**, 2006; **Haller**; **Holt**, 2019; **Heft** *et al.*, 2020), the term "alternative media" has also often been used to refer to far-right media (**Atton**, 2006) or hyper-partisan media (**Benkler** *at al*., 2017).

The emergence of a significant number of far-right pseudo-information websites in the last decade (**Figenschou**; **Ihlebaek**, 2019) has sparked an interest in them, notably after the role played by *Breitbart News* in the 2016 US presidential campaign. Despite being a relatively new phenomenon, as Heft *et al*. note, these sites "have rapidly become a cornerstone of the broader right-wing digital news infrastructure" (**Heft** *et al.*, 2020, p. 3).

Several studies underline their confluence with the growth of populism (**Benkler** *et al.*, 2017; **Wells** *et al.*, 2020), while also noting the interest of these websites to present themselves as journalistic media (**Heft** *et al*., 2020, p. 3), their repetition of stereotypes (**Wasilewski**, 2019), or the combination of "sensationalism, misinformation, and partisanship to provide anti-establishment narratives" (**Mourão**; **Robertson**, 2019, p. 2077).

The notion of pseudo-media more clearly identifies the nature of partisan websites in Spain, whose media system falls within Mediterranean or Polarized Pluralism Model (**Hallin**; **Mancini**, 2004). This is characterised by an ideologically driven media tradition, a strong dependence on political power, and scarce economic autonomy.

3. The new generation of partisan websites and the ecosystem of disinformation in Spain

Since the 2000s, new technological affordances have enabled the emergence of native digital media (**López-García**, 2005). These include initiatives such as *Libertad digital* (2000), *Periodista digital* (2004), or *El semanal digital* (1999) –*ESDiario.com* since 2015–, founded by journalists or politicians, which conveyed conservative ideologies with a blend of information and opinion. Aligned with the neoconservative leanings of the *Tea Party* (**Rodríguez**, 2014), they relied on clickbait headlines to increase audience traffic and revenue. Besides, they focused on the spread of disinformation with strong patriotic and xenophobic undertones (**Martínez**, 2019). This nucleus was further reinforced by an allocation of DDT stations dominated by "politicization" and "clientelism" (**Marzal-Felici**; **Casero-Ripollés**, 2009, p. 105). In the regions governed by the *Popular Party*, the *Grupo Intereconomía* (*El toro TV* and *Radio Intereconomía*) were given impetus; Federico Jiménez Losantos's digital newspaper turned into a multimedia group (*Libertad digital TV* and *esRadio*); and *Popular TV* (*Conferencia Episcopal Española* and *Cadena COPE*) was born.

In the last decade, a wave of pseudo-media linked to the far right[1] and disinformation has populated this markedly conservative ecosystem (**Ramos**, 2021). The xenophobic *Mediterráneo digital* (2010) is a long-standing case. Founder Edgar Sánchez claims that their journalism is "free, independent, and detached from the canons of political correctness (…) in the subsidised press", while he poses next to a bust of Franco in an interview for another pseudo-media (**Navascués**, 2019). Although *El diestro* is the only one that recognizes itself as "the leading news outlet of the Spanish right", and *Contando estrelas* exhibits ultra-conservative beliefs, the ideological foundations of the main pseudo-media are closely related to the far right. *Euskalnews* claims to offer "uncensored news on current affairs in the Basque Country"; *El correo de España* portrays itself as "a newspaper independent from any political party". *Altavoz de sucesos* stresses that "they work daily to report all national and international news with a team of professionals working from all parts of Spain". Its newsroom, however, comprises no more than four people.

> Pseudo-media turn rational dissent and democratic debate into unfounded criticism fuelled by value, emotion-based judgements

These pseudo-media are particularly adept at presenting themselves as distanced from the "corrupt political and media establishment" (**Heft** *et al.*, 2020), engaged in the populist dynamics of social and political polarisation (**Mudde**; **Rovira-Kaltwasser**, 2018). Beyond self-presentation, the identity of the founders reveals links to far-right ideology. For instance, *Euskalnews* was launched by David Pasarín-Gegunde, leader of the *Liga Foralista* party (**Del-Moral**, 2020). *El correo de España* is run by Eduardo García Serrano, who worked for different far-right media and describes himself as a "falangist". The list of collaborators includes, among other names linked to the dictatorship, the president of the *Francisco Franco Foundation*. The organization also operates through the publishers *SND Editores*, which focuses on far-right issues and agents. *Altavoz de sucesos* is owned by Jorge Bayer Sáez (**Cid**, 2020), founder of *Diario patriota* and *Caso aislado* –both inactive–, famed for their dissemination of disinformation (**Ramírez**; **Castellón**, 2018). *Alerta nacional* and *Alerta digital* are owned by Armando Robles, former chief communication officer of CEO and populist politician Jesús Gil. Robles presents himself as the "Spanish Donald Trump" (**Del-Castillo**, 2020; **Sánchez-Castrillo**, 2020).

Alongside digital websites, this community is nurtured by audiovisual initiatives such as *Ya* radio station (2017) or *Distrito TV* (2018) –an ultra-conservative, unlicensed DTT–, bolstered by a plethora of social media accounts. The pandemic has meant an opportunity for *YouTube* channels like *Estado de alarma oficial*, started by former *El mundo* journalist Javier Negre, reaching 330,000 followers in November 2021, amid a campaign of conspiracy theories and disinformation (**Portillo**, 2020). Related to this pseudo-media ecosystem, *OK diario*, started in 2015, has been ranked as the ninth most-read digital daily in Spain (*Prnoticias,* 2021), resorting to fraudulent strategies to increase readership, and featuring its director, Eduardo Inda, as a polemicist in a talk show in *La sexta* (**PabloMM**, 2019).

The digital *Mpr21* is an exception in this far-right ecosystem, although it has many similarities as regards the anti-globalist approach; it is also anchored in conspiracy theories, especially by the anti-vaccine's movement. This digital is linked to the *Movimiento Político de Resistencia*, "a group founded by Bolivian citizens in Madrid" (*Facebook*, 2021), and its origin lies in the blog of the same name created in April 2012.

4. Objectives and methodology

This article aims to catalogue some of the main sources of disinformation in Spain through the identification of eight of the most active pseudo-media, totalling an audience of more than 4 million unique users (*SimilarWeb*, 2021) (Table 1) and of their main lines of dissemination of alternative facts. This research uses primary sources as a starting point, i.e., publications retrieved from the websites of the digital outlets that seek to mimic the formal aspects of the mainstream ones, but whose content is misleading and biased.

The corpus analysed consists of 1,143 news pieces, which result from the selection of 150 items published as of 1 July 2021 in each of the eight pseudo-media and the subsequent elimination of duplicates (both among sections from their web and from others). The choice of these websites meets several criteria: bibliographical references (**Hernández-Conde**; **Fernández-García**, 2019; **Vila-Márquez**, 2020; **Palau-Sampio**, 2021), the usual denial of their contents on verification platforms, warnings for infringing ethical codes (**Paradinas**, 2014), their suspension on digital platforms (*El plural*, 2020), or their self-presentation as an 'alternative' to legacy media, together with their daily publication frequency and a presentation format that imitates the information (**Heft** *et al.*, 2020).

Table 1. Analysed media

Media	Established in	Audience July 2021	Pieces analysed*	Date of sample 01/07/2021 <
Contando estrelas (*CE*)	2004	660,000	150	02/08/2021
Mediterráneo digital (*MD*)	2010	350,000	150	27/08/2021
Mpr21 (*MPR*)	2012	170,000	150	21/08/2021
El diestro (*ED*)	2016	1,665,631	121	09/07/2021
Alerta nacional (*AN*)	2018	430,994	150	04/10/2021
El correo de España (*EC*)	2018	220,000	149	11/07/2021
Altavoz de sucesos (*AS*)	2019	140,000	150	29/07/2021
Euskalnews (*EUS*)	2019	590,000	123	23/07/2021

* After eliminating duplicates

For the selection of the items analysed we have excluded those sections that were a priori identified as opinion or those devoted to content alien to four fundamental areas: Spain, International, Economy and Society. For purposes of homogenisation, after an initial selection of content related to the aforementioned sections, we re-coded identifications to allow a grouped analysis based on five variables (see Table 2): section, topic, source type, polarisation strategies, and clickbait/sensationalist elements in the headline. Measuring their visibility and frequency is essential to understand how these websites approach the agenda-setting process, as these are key ingredients in their construction of the allegedly informative proposal that they transfer to the public sphere. The sample was coded in two phases. In the first phase, a single coder was involved to analyse the variables section, topic, source type and frame, with a test-retest of 10% of the sample before completing the analysis. In the second phase, two coders intervened for the headline variables (polarisation and clickbait/sensationalist elements). Intercoder reliability was equal or higher to k = 0.863 (**Landis**; **Koch**, 1977), also on the 10% of the sample.

This quantitative approach combines with a qualitative analysis to spotlight on the frames contained in the texts, thereby examining which aspects are singled and stressed in the pseudo-information under analysis. This observation responds to a deductive approach and aims to establish a matrix of the main frames used by these pseudo-media in their coverage of certain issues of public interest. Thus, based on **Entman**'s (1993) definition of the four functions of media framing (problem definition, diagnose causes, moral judgement, and suggestion of remedies), the qualitative analysis of part of the corpus (n=396) will enable us to observe the way these websites prioritise certain frames in their contents. Our decision to apply this method to a limited sample of the total number of items allows us to gain a deeper insight into the body of the texts and thereby uncover the discursive elements (speech acts, presuppositions, rhetorical strategies, implicit meanings) that may relate to the four dimensions analysed. Otherwise, the sole examination of the headlines may hinder their identification.

Table 2. Worksheet for analysis

Sections	Spain: contents related to politics or national.
	International: issues related to other countries.
	Society: health, education, rights, minorities.
	Economy: development of economy, financial, business.
	Other: none of the previous options.
Topics	Covid-19: Vaccination; restrictions; speculation; varia.
	Politics: Criticising the government; *Vox*; *PP*; *UP*.
	Rights and minorities: LGBTI; immigration; gender; childhood; ethnic minorities.
	Ideological issues: Communism, Nationalism, Exaltation of homeland and language, Francoism; Progressivism.
	Security and conspiracy: Military; Theories and confabulation; Afghanistan; Crime.
	Commercial: Covert advertising.
	Communication: Media; Journalism; social media.
	Other: none of the previous options.
Source types	Non-identified.
	Legacy media.
	Other pseudo-media.
	Social media / Web.
	Official communication.
	Opinion.
	Other.
Headline	Polarising elements: war-like language; tension-building.
	Clickbait and sensationalist elements: marks of orality, appeals to the audience, orthographic signs (parentheses, exclamations, suspensive dots), colloquialisms (**Palau-Sampio**, 2016).

The present study aims to provide an answer to the following research questions:

RQ1: On which sections and topics do the pseudo-media analysed focus their attention?

RQ2: What kind of sources are provided to substantiate the pseudo-news?

RQ3: Are features of polarisation and clickbait used in the headlines?

RQ4: Which are the prevailing frames in political news and in issues related to human rights and vulnerable groups?

5. Analysis

5.1. Sections and topics

The pseudo-media analysed are organised in sections that often deviate from legacy media standards, as in the case of *Contando estrelas* or *Mpr21*. Both are organised in sections that transgress thematic or geographical logics, with the inclusion of sections outside media standards. *Contando estrelas* shows a particular focus on military issues (Aviation, Defence, Army) and identity (Language, Spanishness), while *Mpr21* favours sections related to conspiracy (Repression, Strategy, Psychological warfare). After recoding the sample items to homogenise the analysis, the results show a major focus on state issues and on political issues (47.8%). In global terms, these are ranked above the Society macro-section, with almost a quarter of the total, and International, which represents a fifth of the total.

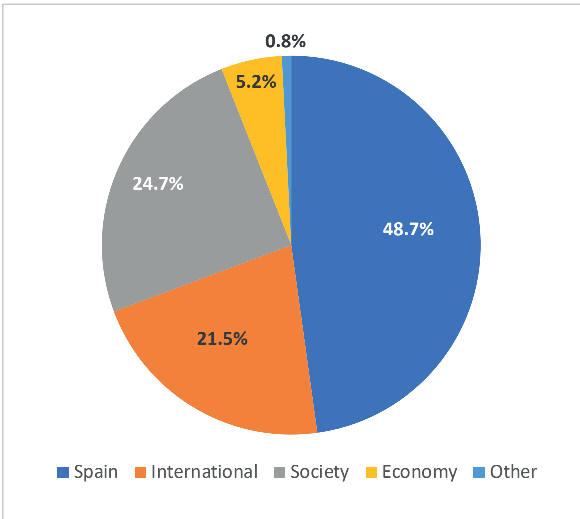

Figure 1. Sections covered by the sample contents

A detailed inspection of the websites' contents exposes diverse interests in their disinformation ethos (Figure 2). While some media focus exclusively (*AS*), or to a large extent (*EC*, *CE*, *ED*), on national issues, others prefer social affairs (*MD*) or topics involving other countries (*EUS*, *MPR*). In stark contrast to the international attention typical of the mainstream media (**Merill**, 1968), we observe an interest driven by the issues that feed their uninformative line. The

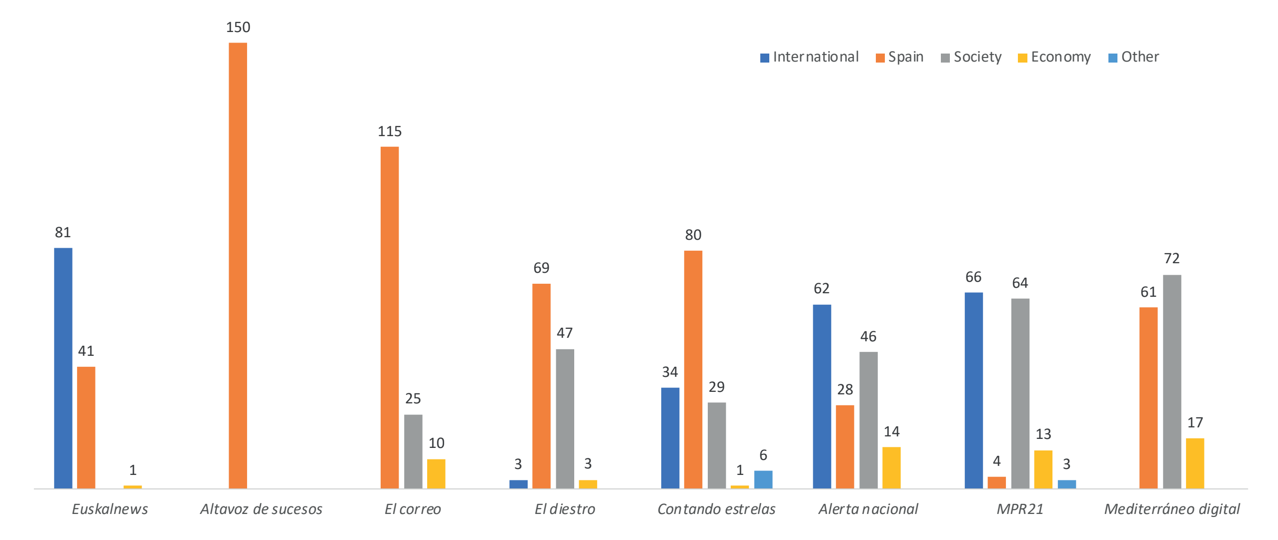

Figure 2. Top sections in each pseudo-media

inclination to spread speculation about Covid-19 is at the heart of such headlines as "Vaccination centre and pharmacy set on fire in Martinique as settlers impose curfew" (MPR040821)[2, 3] or "WHO official faces death penalty for discouraging use of ivermectin in India" (EUS200721).

The heterogeneous variety of contents in these pseudo-media has prompted a classification of topics (see Table 3). Overall, the pandemic and its repercussions have received most attention, along with politics. Both represent nearly 45% of the records, which enables us to identify two major disinformation biases. Regarding Covid-19, the spotlight is on vaccination –"Man dies from Covid after vaccination" (MD120721)–, the imposed restrictions –"Abductions in Majorca: Satan worshippers in government subjugate, prostitute and sterilise your children" (EC040721)– and speculation –"Bill Gates funded project to store vaccine history under patient's skin" (EUS220721) or "Scientific journals caught in pandemic's political machinations" (MPR110721).

Politics is largely dominated by criticism of the government and its measures, which is featured by *AS*, *EC* or *ED*, for instance: "Sánchez wants to militarise those who don't think alike" (EC070721), "Pedro Sánchez may use National Security Law to hide his destinations and luxuries" (AS100721), or "Come on, Prime Liar, pardon Isa Serra, one of your criminals" (ED040721). Besides targeting *PSOE* and members of the government, reprobation is also directed at *Unidas Podemos* (*UP*) and the *Popular Party* (*PP*): "Don't say infectious traitor, say Pablo Casado. He WILL NOT ABOLISH Sánchez's euthanasia bill" (AN080921), or "This is how Feijóo's TV silences Vox and whitewashes Bildu's Galician allies" (CE260721). References to *Vox* often praise their initiatives –"The brave speech of Ignacio Garriga, Vox, defending the most innocent and vulnerable ones" (CE220721)– or they reproduce any witticism on social media: "Santiago Abascal destroys Sánchez's image with a new nickname: 'Pedro Liar'" (AS020721).

A second tier comprises three macro-topics –rights and minorities, ideologies, and security and conspiracy–, which accounts for at least one in ten of the

Table 3. Contents of the sample

Macro-topics	Topics	Pieces	%
Covid	Vaccination	137	23.5
	Restrictions	80	
	Speculation	43	
	Varia	23	
Politics	Criticism of government	137	21.1
	Vox	49	
	PP	29	
	UP	26	
Rights and minorities	LGBTI	50	13.6
	Immigration	47	
	Gender	43	
	Childhood	8	
	Ethnic minorities	7	
Ideological issues	Communism	53	11.6
	Nationalism	35	
	Exaltation of homeland and language	26	
	Francoism	10	
	Progressivism	9	
Security and conspiracy	Military	54	10.3
	Theories and confabulation	39	
	Afghanistan	17	
	Crime	7	
Commercial	Covert advertising	39	3.4
Communication	Media/Journalism/social media	22	1.9
Other	Other	167	14.6
	Total	1,143	100

pieces analysed. The first group is highly concerned with LGBTI issues, immigration, or gender, with an outlook that strays from respect for rights and freedom, as shown in these headlines: "Don't be fooled. Franco did not persecute homosexuals; he did persecute abusers and pimps, today tolerated in the Balearic Islands" (EC020721), "Local police for fake feminists?" (EC030721), "UN (mass) murderers explode: UN criticises Texas pro-life law for 'opposing our gender policies'" (AN100921), or "Two young men, NO NATIONALITY, arrested for sexual assault on Valencia beach" (MD260721).

Ideology remains an obsession for some pseudo-media, notably as regards communism –"The Spanish Inquisition, the French Revolution and communism: which one caused a bigger death toll?" (CE310721)–, or Catalonia and nationalism: "The Catalan nationalist apes and their terrorist acts backed by the complicit silence of authorities and media: the self-declared 'Soldiers of Salamis'" (AN250721). *EC* is known for its exaltation of homeland and the Spanish language: –"Whoever does not care about Spain today is perhaps its enemy" (EC050721); "Our damaged language receives the first defence" (EC040721)–, while censuring progressivism: "It is essential to know the enemy, the 'progressives' and their progress (2)" (EC090721).

Security and conspiracy themes account for 10.3% of the contents, with a notable interest in weaponry –"The footing of the tomahawks of a Spanish Navy SH-60B on the destroyer USS Ross" (CE030721)– military strategy –"Krasni Bor: the biggest and fiercest battle of the Spaniards in the Second World War" (CE010721)–, and a dash of nostalgia: "P-38 Lightning: this is how one of the best fighters of WW2 still flies" (CE020821). Speculation on security is a relevant feature: "From Seal to McAfee: all in danger" (EC020721), "Shall Russia arrive in the Sahel to replace French troops?" (MPR270721), or "Shocking nuclear missile arsenal discovered in China poses clear nuclear threat" (EUS040721).

Beyond ideological biases, a part of the contents include covert advertising: "The best cards with petrol discounts to travel by car this summer" (EC100721), or "Get ready for the Black Friday 2021" (AN150921). This option has a prominent presence in *MD*, with pharmaceutical instances –"What you need to know about *Hemorelax* cream, the treatment for haemorrhoids" (MD250821)–, psychics –"Cheap clairvoyants. Marian tarot. Marian is a cheap and good clairvoyant"

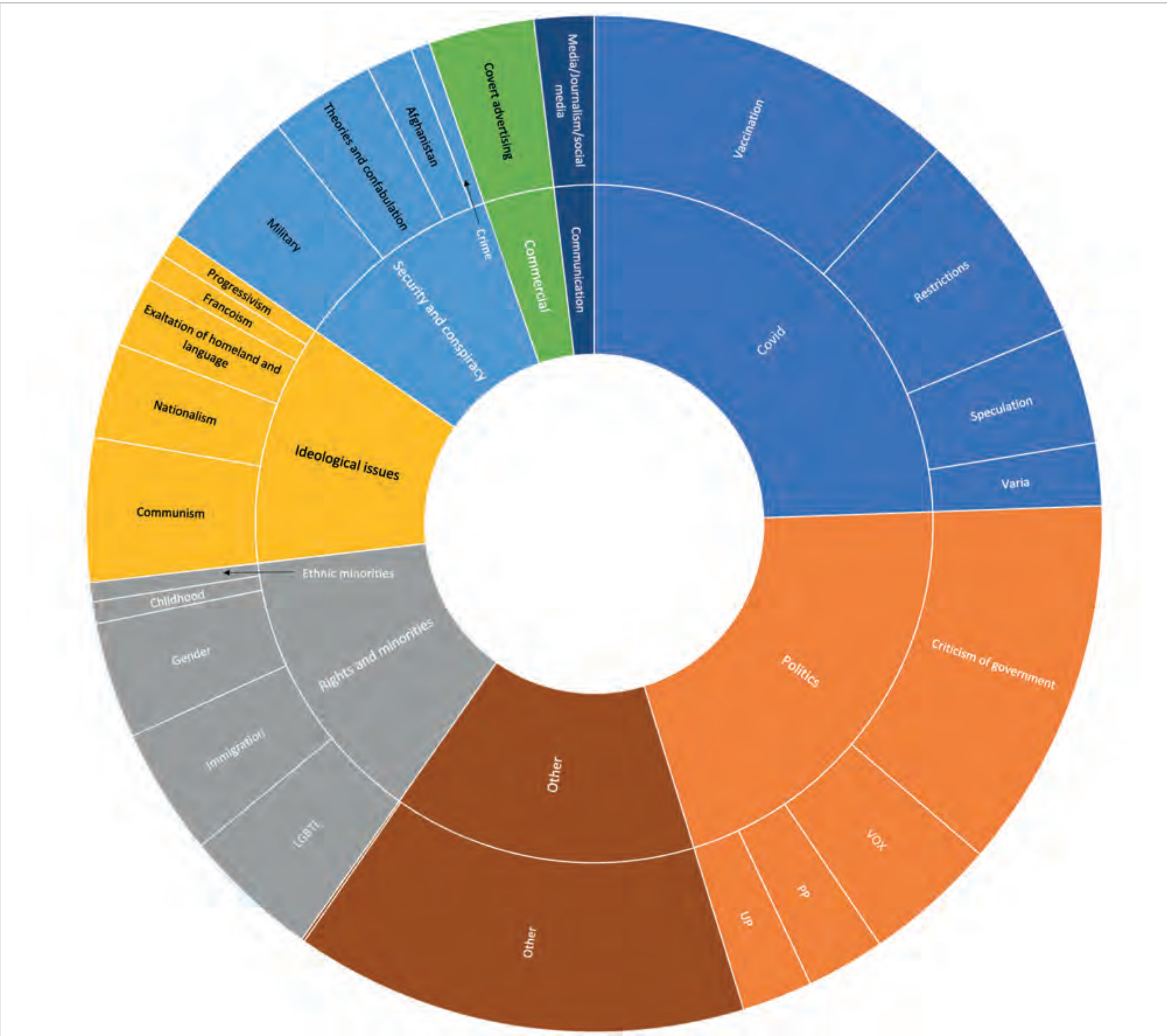

Figure 3. Macro-topics and themes covered

(MD060721), or gambling: "All you need to know about casino bonuses" (MD080721). References to media and journalists are notable for their blunt attacks and insults: "DISTRITO TV denounces that Ignacio Escolar's pamphlets, *El diario* and *Vertele*, are the new pirates of information" (ED100721), or "Brilliant letter of Enrique Diego in 'Rambla Libre' to the 'flunky lackey' Vicente Vallés" (ED010721).

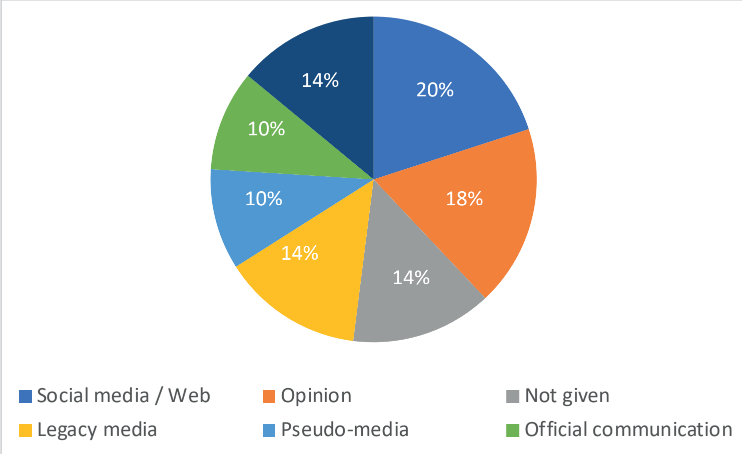

Figure 4. Types of sources

5.2. Sources cited in the texts

The analysis of the sources shows that nearly half of the pieces examined (44%) refer to a source external to the pseudo-media. As Figure 4 shows, the information published most often comes from materials found on other websites or social media. One out of five news items (20%) cites a source in this category. One common practice is to resort to profiles of political actors on social media like *Twitter* to support a pseudo-news item, as in "*Vox* rejects the curfew: 'Millions of Spaniards live unconstitutionally confined'" (AS170721), based on a tweet of the far-right MP Macarena Olona; or "Surreal: Yolanda Díaz blames the 'climate crisis' for a fire in a gas pipeline" (CE050721). Audiovisual content found on the Internet, *YouTube* or non-specialised websites often becomes the source of a pseudo-news item on the grounds of showing a "curious video" they claim they have "come across": "#SoloVídeos: Could this be the injection they use to 'vaccinate' some people?" (ED010721).

In addition to the existing resources available on the Internet for all users, these pseudo-media also use media of varying quality to reproduce on their websites, as evidenced by the sources cited in 24% of the items in the corpus. 14% of the total refer to mainstream media insofar as, regardless of their political and economic independence, these are media organisations with a long history. Their structure and contents meet some minimum journalistic standards.

Figure 5 lists the media and agencies that are cited as sources of information in at least two news pieces in the corpus. The media occasionally cited include international organisations such as *CNBC* –"This is how today's Marxist feminism is funded: Bill Gates' and Jeff Bezos' ex-wives donate 40 million dollars to gender equality projects" (AN010821)– and Spanish ones like *El confidencial*: "The Ministry of the Interior will track 'asymptomatic terrorists' with artificial intelligence (they don't have any other kind left)" (MPR040821). The data reveal a recurrent focus on three predominantly conservative media outlets: *El mundo*, *ABC* and *esRadio*. These are cited as sources in up to ten pseudo-news pieces, mostly political and highly critical of the coalition government. These conservative media add to others like *Libertad digital, COPE* or *Vozpópuli* (Spanish), and *Fox News* and *New York Post* (international).

The media count also includes, albeit to a much lesser extent, more progressive media organisations like *El país*, *La sexta* or *Cadena SER*. However, these are not cited as sources to reproduce their contents but rather to attack and distort their

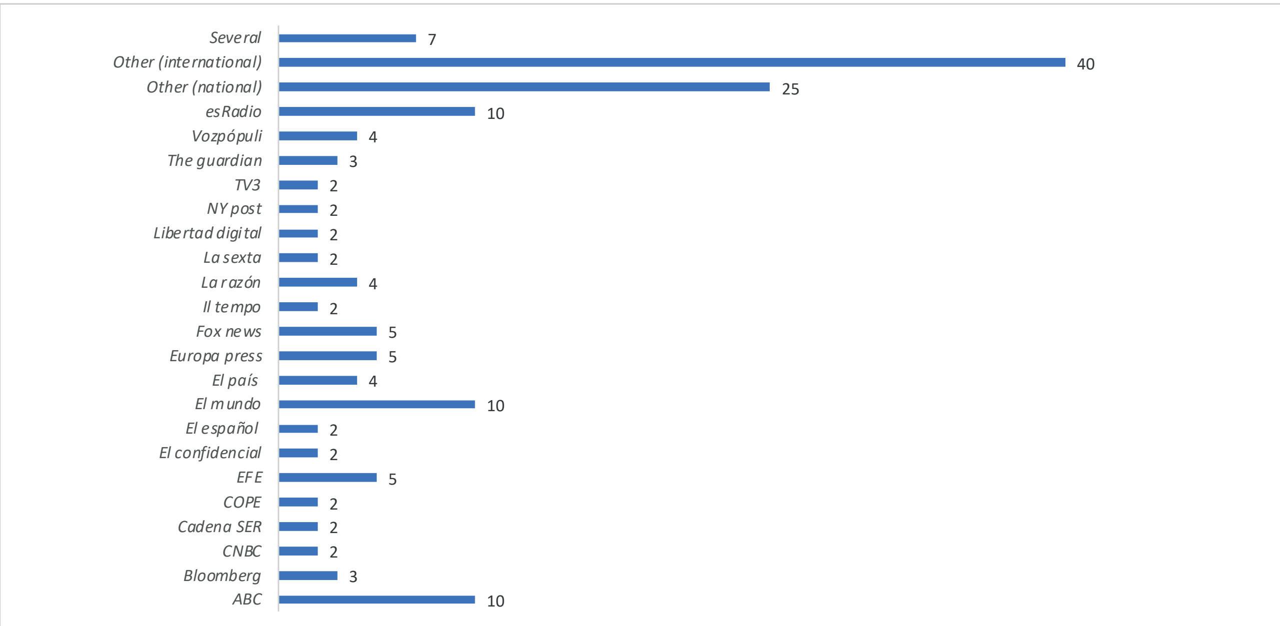

Figure 5. Mainstream media cited as sources

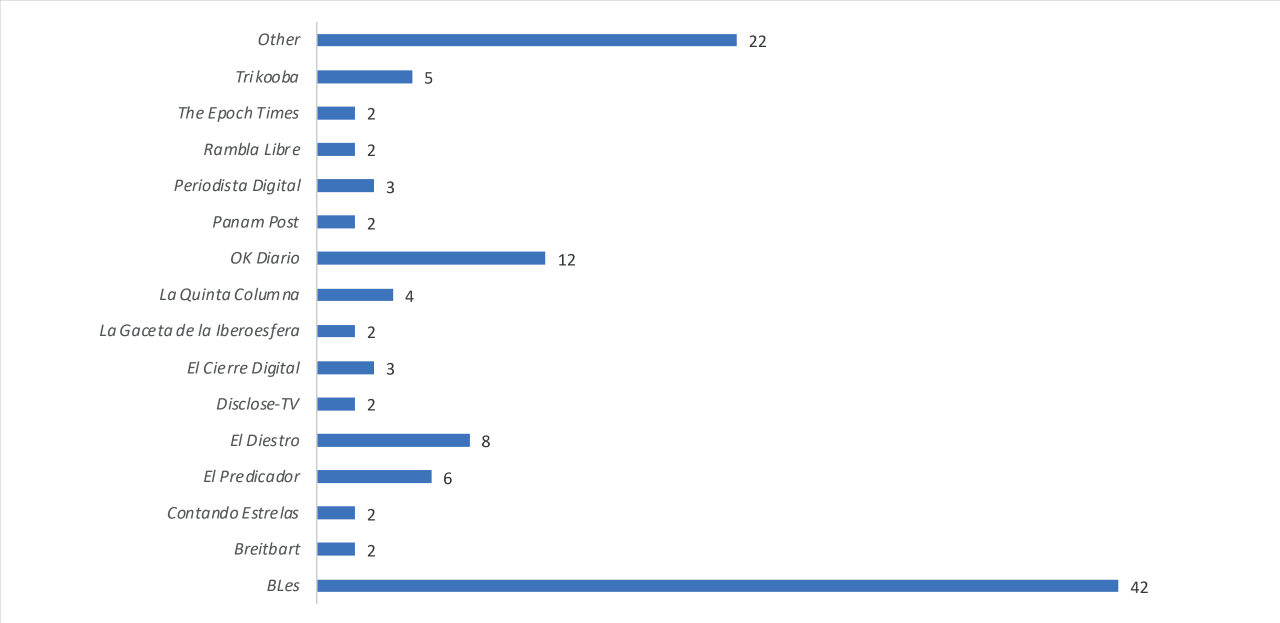

Figure 6. Pseudo-media cited as sources

information: "The constitutional rights Pedro Sánchez threatens with his new abuse of authority on the National Security Law" (CE040721), based on the following news piece in *El país*: "All adults in Spain can be mobilised in the event of a crisis".

Figure 6 shows the group of pseudo-media cited as sources of information in 10% of the news pieces analysed. One of the pseudo-information websites which most prominently features (40 items) is *BLes*, which advertises itself as "Uncensored news of the world and Latin america". *BLes* is cited in *EUS* in news pieces related to Covid-19, as in: "A study reveals that heart inflammations (myocarditis) after Covid vaccine are higher than expected" (EUS010721), or "Moderna accidentally confirms that all vaccine takers are part of an experiment" (EUS180721). Along with *BLes*, three other pseudo-media also stand out as sources: *OK diario*, *El diestro* and *El predicador*. The use of *El diestro* as a source in *EUS* is evidence of the interrelationship between some of the websites that are part of the study. This is also the case of *CE*, which is cited in some news pieces in *AN*. The diversity of pseudo-media includes a sizeable number of international portals such as *The Epoch times*, *PanAm post*, and *Breitbart news*, as well as Spanish like *Trikooba*, *La quinta columna*, *El cierre digital* or *Rambla libre*.

The second most frequent type of source used in the items analysed (18%) is a personal signature in opinion texts. These pieces, however, are not included in the Opinion sections but appear together with the rest of apparent current affairs contents. This is, for instance, the case of "Shame! The electricity bill higher than ever, they are announcing cuts in pensions… and the trade unions keep silence" (ED030721), published in Politics, and "Playing the idiot: Moncloa's tactics for stunning and confusing Spaniards. BEWARE! It's working" (AN300721), located in Society. The next most frequent category is that of texts lacking any sources (14%), varying from political issues to the reporting of events. The first category includes the item: "Communist Garzón caught! Sirloin steak served at his wedding!" (AS090721), where the only reference to the source is: "as reported on Thursday".

The weight of news pieces citing official sources is relatively lower (10%). These include press releases, press conferences or declarations to journalists by institutional representatives. The category Other (14%) gathers those items combining sources from different categories, together with documentary references.

5.3. Polarising strategies and clickbait in headlines

The analysis of the headlines shows the presence of polarising strategies in almost 6 out of ten of the headlines. In these, there is a predominance of bellicose lexicon or an explicit attempt to increase confrontation through expressive devices. Although 58.8% follow this strategy, the differences among websites are notable. This trend is consistently employed by pseudo-media *AS* and *EUS*, which virtually double the figures of *CE* or *MPR*. In this vein, *AS* resorts in their headlines to verbs that turn criticism into verbal violence and cause confrontation: "Losantos destroys the Spanish left: 'It is revolting, totalitarian, and abject'" (AS020721), or "Rosa Díez smashes Sánchez again: 'He wants to rule like a *dictator* leaning on our enemies'" (AS260721).

The use of adjectives that denigrate actors alien to the pseudo-media alignment is not only proof of ideological bias but also of the attempt to build an extremely divisive political climate, as shown in references to "The calamitous Carmen Calvo" (AS100721), "The useless Garzón" (EC090721), or "The despicable vice-president of the Castile and León Council" (ED080721). This attitude also spreads to journalists: "The sectarian Mónica López" (AS020721), or "The heinous Antonio Maestre" (ED010721).

This urge to exacerbate division permeates headlines by means of statements that dispute the official measures against Covid-19 –"Fernando López Mirones warns to be vigilant: the official propaganda misleads us" (EUS150721)–, while offering alternative readings –"The biologist Jon Ander Etxebarria says that politicians arbitrarily create the waves based on the tests administered" (EUS160721).

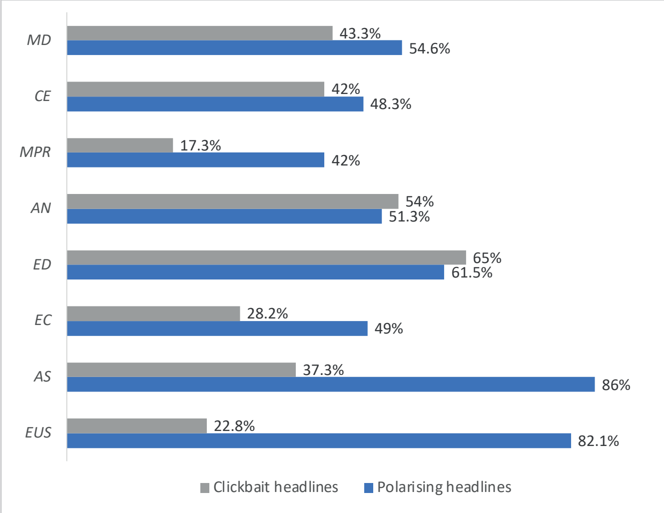

Figure 7. Percentages of polarising headlines and clickbait in the pseudo-media

These same formulas are used to stigmatise certain groups, with a special focus on the LGBTI movement –"The free state of Bananas, Orwell's prophecies, and the LGBT tyranny that is already over us" (EC040721)–, gender equality, which appears as superfluous in public budgets –"Vitoria City Council spends 74,000€ on 'street lamps with a gender perspective'" (MD260721)–, or abortion rights are turned into murder: "Miserable New Zealand: babies born alive and left to die" (AN090721). On the *MD* website there are increasingly virulent messages that link migration to physical and sexual violence –"A Moroccan rapes and tries to slit the throat of the NGO volunteer who rescued him and found him a flat in Ceuta" (MD030821), or "A prisoner of an ethnic group we can't say rapes a state officer in a prison bathroom" (MD060721)–, thus radicalising the rejection of migration: "Abascal, NO to Afghan refugees: 'Let Muslim countries shelter them'" (MD170821).

Together with polarising headlines, the analysis unveils the use of clickbait strategies that incite digital audiences to click on headlines. Clickbait is found in 38.1% of the items, with a more prominent occurrence in pseudo-media *ED*, *AN* and *MD*. The analysed pieces display a wide array of options, including exclamations, rhetorical questions, or direct appeals: "What's next?" (MD160821), "'Shall we have it back?' The Constitutional Court annuls Pedro Sanchez's government's lockdown" (MD140721); "Listen to the way minist-rous Celaá explains how she intends to vaccinate children. You've had it, minist-rous!" (ED020721), or "What you and I know" (ED030721). Lists feature prominently, especially in *CE* and *AN*, serving to strengthen the polarising message: "The 8 disgraces of Simone de Beauvoir, the midwife of gender ideology and left-wing degenerate" (AN280821), or "10 signs (showing) that Spain is taking an authoritarian drift thanks to the left" (CE190721).

Signs of orality take the form of judgments preceded by a colon –"John's Biden monstruous betrayal: He gave the Taliban a list of 300,000 Afghans who helped the US: now they are being hunted down" (AN290821), or "The red scum smells of dirty money: Podemos and Correa had a frontman to shift nine million dollars" (AN041021)–, the use of capitals and parentheses: "(SHOCKING VIDEO) Irene Montero's cunt, Minister of the Spanish Government, on the lips of the whole of Spain" (AN100921), or "NO JOKE: Morocco demands half of Spain's tourist revenue from the Alhambra in Granada" (AN030721). The use of colloquialisms emphasises certain aspects –"C'me back t'Spain! Europe lifts Puigdemont's immunity" (MD300721), "Show them you got balls! Santiago Abascal to return to Ceuta after being declared 'persona non-grata'" (MD250721)– or to ridicule with insulting or derogatory words: "Pope Francis, operated in Rome because he couldn't shit" (MD050721), or "Socialist education. All the same…donkeys: PSOE says that resit exams lead to 'social gap'" (AN150921).

One fourth of the headlines in the corpus combine clickbait strategies with polarising factors. This pattern can be seen in sensitive topics such as vaccination –"Are you just going to get vaccinated? Did you forget the disaster caused by insufficiently research drug like thalidomide?" (ED010721)–, or gender violence: "What would happen if it were the other way round? A woman breaks a glass in a man's face?" (MD090821).

5.4. Frames

To identify the preferred frames in the pseudo-media under analysis, we conduct a qualitative approach to the news pieces on the macro-topics "rights and minorities" and "politics", which comprise 34.7% of the total corpus. Our aim is to describe how their contents contribute to a particular framing of certain problems, an interpretation of their causes, their moral judgement, and their recommendations on ways of resolving them.

5.4.1. Immigration threatens citizenship security

The frames of the news stories on events involving migrants concur in portraying them as criminal actions. The pseudo-informative framing of immigration as a threat to citizenship security is clearly observed in *Mediterráneo digital*, which gathers 53% of the total items, as in: "Colombian man arrested for beating and smashing an elderly woman with a walking frame against a wall to steal her purse" (MD120821). Other sites reproduce similar patterns: "A 19-year-old Colombian man arrested for brutal attack on health worker in Madrid Metro" (AS190721). Underscoring the nationality of the alleged perpetrators in the headlines evinces an attempt to justify the incidents based on their foreign origin, under the protection of the government –"Sánchez's government wish to repopulate emptied areas of Spain with migrants" (AS010721)– and the European institutions: "Jihadists who chopped off heads in Syria welcomed in Europe as 'heroes of freedom'" (MPR120721). Furthermore, the contrast of migrants with the description of vulnerable profiles (an elderly woman with reduced mobility), or linked to health and social services, heightens the good-vs-evil moral conflict.

The systematic approach to migration issues through police action constructs a narrative whereby migratory affairs must be solved by state security forces. Nonetheless, some items in this category also report on calls for action from *Vox*: "Vox responds to illegal Moroccans pleading to be taken in after the invasion of Ceuta: 'Deportation!'" (AS190721). At times, some pieces even seem to urge Spaniards' individual action to tackle the purported migratory issue: "Arrested in Palma for punching a Moroccan who tried to rob him on the beach" (MD050821), which concludes with the telling pseudo-media's interpretation of the aggression against the migrant person: "The hunter becomes the hunted. He will think twice next time".

5.4.2. Affective-sexual and gender diversity threaten Spanish morality

The prevailing frame around the LGBTI community depicts the recognition and legal protection of affective-sexual and gender diversity as problematic: "The Government's latest: they seek to transform the sexual culture of the Spaniards" (ED060721), or "The Trans Act, a threat to women and children" (CE030721). The complicity of the coalition government with the demands of the LGBTI people –"Sanchez's government hoists the LGBT flag in Hungary but not in Iran or Saudi Arabia" (CE090721)–, but also the involvement of the *PP* with part of this community –"The contemptible and traitorous 'cowardly right' of the Putrid Party, Pablo Casado and his gay True Believers do it again: PP votes in favour of reprisals against Hungary for not bowing to the LGBTI lobby" (AN1000721)– appear as causes that explain the strength of "LGBT totalitarianism", which "comes swathed in rainbow but whose evilness makes communism look tame by comparison" (EC020721).

The 'evil' of the LGBTI is a powerful factor of moralising evaluation which dominates the framing of this issue and is embodied in the recurrent ideas of indoctrination of minors, the most defenceless and vulnerable people –"LEGO makes LGBT dolls. US families warn the Danish brand: stop indoctrinating our children, or we'll buy no more toys" (AN030821)–, who become the target of corruption: "Listen to the song by the San Francisco Gay Men's Chorus: 'We will corrupt your children'" (ED080721). The framing of LGBTI people fails to reveal clearly how to address the issue. There are, however, some veiled suggestions: "AND THEY'RE OUTRAGED BY ABUSES? 'We're coming for your children': the terrible song of the San Francisco Gay Men's Chorus" (AN100721). Other more explicit recommendations are based on religion, as seen in the closing of the text "Gender identity wants to destroy the family" (EC080721), which reads: "We must raise awareness, put relativism aside, and follow the words of the Acts of the Apostles 5, 29: 'We ought to obey God, rather than men!'".

5.4.3. Feminism causes grievances among Spanish people

The dominant gender framing seeks to present feminism as the real problem, fuelling ideas of false reports of gender-based violence: "Yet another false report! A woman who accused her ex-partner of abduction and mistreatment is caught" (MD040821). The use of the term "feminazi" –which refers to "any woman who reports falsely (more than 1,000,000 false reports since 2004) to profit from a separation or divorce" and to the "Gender Dictatorship they have established here" like "German Nazism" (EC050721)– is coupled with description of gender legislation as an instrument of inequality, citing *Vox* as source: "Ángeles Criado (Vox): 'Equality laws generate inequality'" (EC090721). The framing of violence and gender evokes a negationist reading of male violence. On the premise that "violence is not a matter of men or women" (MD160721). Violent acts carried out by women are highlighted: "Arrested in Lora del Río for stabbing her husband and trying to suffocate her baby" (MD140721).

In addition to viewing feminism as problematic, this frame attaches negative moral judgement in news pieces on abortion, defined as "a form of barbarism for which God and history will hold us accountable" (EC100721) and "to kill and butcher a human being in their first months of life" (CE090721). These sites also condemn all women who terminate their pregnancies –"a mother who wants to kill her unborn child" (AN140721)–, human right experts who defend the legal basis of this procedure –"the UN murderers and genocides" (AN100921)–, and the medical professionals who take part: "the murderous rats" (AN170921). The pseudo-informative frame analysed ultimately suggests that the solution is to halt and reverse the advances achieved by feminism: "Third legal defeat of the gender act in Madrid: how many are needed to annul it?" (CE270721).

5.4.4. The coalition government is dangerous for the country

The frames above fall within a common macro-narrative that views them as symptoms of a larger nationwide concern: a coalition government that protects immigration and embraces the LGBTI and feminist agenda (see summary of frames in Table 4). The framing analysis of the 241 pseudo-information pieces under 'Politics' shows this. The greatest number of pieces –aimed at criticising the ruling of *PSOE* and *UP*– coincide in their diagnosis: the current left-wing government is dangerous for the country, in line with actors like *Vox* –"Abascal on Sánchez's government: 'They a threat to peaceful coexistence, to freedom and to Spain'" (AS170721)– or the church: "Bishops denounce that Sánchez's government 'puts freedom at risk'" (CE270721).

Table 4. Main frames in the macro-topics 'Rights and minorities' and 'Politics'

Topic	Definition of problem	Causes	Moral judgement	Proposed solution
Immigration	Immigration poses a threat to citizenship security	Foreign origin The government The EU	Violence against vulnerable or benevolent people	Action by State Security Forces Expulsion Individual vigilance
LGBTI	Affective-sexual and gender diversity pose a threat to Spanish morality	Government and other parties bow to the LGBTI lobby	Indoctrination and corruption of minors	Protection against corruption of minors Moral and religious integrity
Gender	Feminism causes grievances among Spaniards	False reports of gender-based violence Gender laws cause inequality Women also commit offences, and these are kept hidden	Abortion (killing a child) is inhumane	Halt and reverse the feminism advances
Coalition government	The coalition government is dangerous for the country	Supports immigration and takes on the LGBTI lobby agenda Shameless, ineffective, and illegal action	Hypocritical Revengeful Totalitarian	Resignation Expulsion Rebellion

The frame 'The coalition government is dangerous for the country' is underpinned by references to their ludicrous actions –"Ridiculous Pedro Sánchez schedules 3-day agenda in the US and won't see Joe Biden" (AS160721)–; their ineffective policies on economy –"Thank goodness they are leftists! The government to cut pensions" (MD010721)–; education –"Socialist education. All the same…just like dumbs: PSOE says that resit exams create 'a social gap'" (AN150921)–; health –"Losantos blasts the government's health policy: 'A criminal stream of lies and nonsense'" (AS180721)–, and even accuse Sánchez of inciting unlawful actions: "Sánchez's government faces charges after the first state of alarm was declared illegal" (AS140721).

Along with these reasons, the Government is also subject to moral judgement, which translates into three strategies. Firstly, via accusations of alleged deceit and hypocritical behaviour: "The cynical message of Sánchez's government after refusing to condemn genocidal crimes" (CE070721). Secondly, the government is portrayed as vindictive: "Sánchez's government doesn't rule out demolishing the cross of the Valle de los Caídos" (AS200721). Finally, the analogy with a totalitarian administration is recurrent as a means of stressing the government's attributed evil nature: "FOR THE DELUSIONAL AND THE BLIND. Sánchez is (exactly) following the Führer's footsteps: THUS CAME HITLER'S REGIME" (EC100721), "20 things that should not be normal in a democracy but actually are in Spain" (CE110721).

Under the rationale of this frame, the appropriate solution is to end the government. One scenario is resignation, as requested by *Vox* and echoed by some of these pseudo-media: "Macarena Olona is clear: 'The government must resign outright'" (AS140721). Another option is to overthrow the government. The articles that suggest this possibility are rather vague about how to do this: "Rosa Díez forewarns a 'hot autumn' to end Sánchez: 'He won't stop until we stop him'" (AS030721). Others, however, suggest tactics that resonate in Spanish society: "Towards another civil war. Sanchez's [coalition government] is a replica of that of 1931" (AN310721). In any event, if the current government remains in power, there is the option of rebellion against the government and their regulations: "For purely testicular reasons, I will never comply with the new and atrocious national security law: because I don't fucking want to" (EC040721).

6. Discussion and conclusions

Websites that simulate the appearance of media outlets while infringing the criteria of quality and journalistic ethics are key agents in the Spanish information disorder. This research provides a novel approach to the study of disinformation, based on a comparative analysis of the contents of eight pseudo-media gathered from their own websites. This allows us to examine their production patterns, both in terms of the selection of topics and the biases they favour, as well as to evaluate one fundamental aspect: their sources. The rise of these pseudo-media outlets –five of which have emerged since 2016– reinforces the configuration of a partisan ecosystem when fake news first showed their capacity to impact public opinion (**Olmo-Romero**, 2019).

The results of the present study reveal an obvious ideological intent in the selection of contents (**Bennet**; **Livingston**, 2018). This factor stands out in texts that are inconsistent with rigour and informative diligence, both in the headlines and in the story or the actual grounds. However, this commonality in the presuppositions of deception and manipulation does not rule out some heterogeneity in interests and specialisation (**Heft** *et al.*, 2019). Accordingly, we can distinguish three groups of pseudo-media according to their focus: (1) politics, (2) human rights, and (3) Covid-19 and conspiracy theories.

The prominence of the section Spain in the group of pseudo-informative websites unveils their role as influential instruments in the unfolding of national politics. Thus, the *PSOE-UP* coalition government is framed as a threat to the country, incapable of enacting effective policies and whose authoritarian nature demands an urgent solution, whether it be resignation or overthrow. These clearly resonate as civil war discourses. By contrast, these websites present

> The approach to migration issues constructs a narrative linked to the security forces action

far-right *Vox* as praiseworthy and deserving credit. This is coherent with their drive to generate division, as can be seen in the high degree of polarisation of their headlines. This Manichean discourse connects with "authoritarian populism" insofar as it prevents any real debate and jeopardises the articulation "of communicative democracy" (**Atton**, 2006, p. 575). The contents of these pseudo-media thus contribute to delineating an "us *vs* them" strategy, typical of rising populism in recent years (**Brubaker**, 2017; **Moffitt**, 2020).

> In addition to viewing feminism as problematic, this frame attaches negative moral judgement in news pieces on abortion, defined as "a form of barbarism"

This polarising nature extends to issues related to human rights through a choral reproduction of stereotypes in their treatment of certain social groups (**Wasilewski**, 2019). Pseudo-information on immigration, LGBTI people and feminist and gender issues deploys their ideological and populist discourse on minorities and vulnerable groups. These are framed as a threat security, childhood, and men's rights, respectively. This message, which also targets the responsibility of institutions, is overlaid, in parallel, with tabloid journalism techniques, like clickbait, which allows them not only to deliver anti-establishment narratives (**Mourão**; **Robertson**, 2019, p. 2077) but also to seek economic profit through clicks and visits (**Cooke**, 2017).

The polarising rhetoric of these pseudo-media connects with far-right ideology and the practices of certain US ultra-conservative media that seek to redirect the anger of their audiences (typically men) towards more disadvantaged groups (women, immigrants) through the so-called "journalism of resentment" (**Kimmel**, 2019). The contents analysed appear to be suited to cater for the concerns of an audience that shares much of the profile of the *Vox* voter, "mostly male, who feels wronged by policies that are the result of what they label «gender ideology»" (**Michavila**, 2019, p. 32), and who exhibits a blatant hostility towards immigrants (**Castro-Martínez**; **Mo-Groba**, 2020).

The prominence of the Covid-19 pandemic in these pseudo-media is reflected in many news pieces where the spread of conspiracy theories acquires great importance, together with polarisation and clickbait. With a patent political intent, the discourse on the health crisis paves the way for speculation and the generation of mistrust towards vaccination and health restrictions. The lack of substantiation of the pseudo-news pieces is also confirmed by the analysis of the sources. Most pieces simply lack them, or else rely on the Internet to find material for their contents. Others are merely opinions. The references to mainstream media reveal the alignment and sympathy of these websites with conservative media organisations, the ones they cite the most. Furthermore, references to other pseudo-media, both in Spain and abroad, evince the interest of these websites in establishing a non-formal collaborative network of disinformation, disguised as journalism, which feedbacks on content and shares audiences, as in the case of social media (**Froio**; **Ganesh**, 2018).

The conclusions of the present study are limited to the type of production, the ideological affiliation of the pseudo-media, and the period of analysis. In this regard, future research may also broaden the scope to other similar websites and other means used by pseudo-media to deliver their contents and reach other audiences (e.g., social media, *Telegram*, etc.). Moreover, the results obtained in this study may also be contrasted with the contents of these websites in different timelines –which may not be affected by exceptional situations like the Covid-19 health crisis–, or in other political contexts. This would help determine the highly partisan and polarising nature of most pieces of the corpus modulates under different circumstances or whether, conversely, it constitutes a distinctive feature of these pseudo-media as a reality-altering strategy. A contrastive analysis of pseudo-media aligned with left-wing positions would also be in order.

> The 'evil' of the LGBTI is a powerful factor of moralising evaluation and is embodied in the recurrent ideas of indoctrination of minors

7. Notes

1. The presence of far-right-leaning media in Spain has been marginal after the return to democracy, confined to some remnants of the Franco regime such as *Arriba* (1935-1979), *El alcázar* (1936-1987) and the magazine *Fuerza Nueva* (1966-2017), or the only far-right newspaper born after the death of the dictator, *El imparcial* (1977-1980), which sought to be a means of expression of the far right (**Palau-Sampio**, 2020).

2. All headlines are originally in Spanish. A translated version is provided for ease of exposition.

3. Coding identifies pseudo-media (*MPR*) and publication date (ddmmyy).

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The Internet, populism, and deliberative democracy: A panel study of 167 countries from 2000 to 2018

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Abstract

The wide adoption of the Internet gave rise to populism, which is regarded as a critical threat to deliberative democracy. This paper was a cross-national panel study to explore the Internet's populist impacts on deliberative democracy. It had two specific objectives. One was to examine whether or to what extent Internet penetration has populist impacts on deliberative dimensions, including reasoned justification, common good, respectful counterarguments, range of consultation, and engaged society. The other was to examine how Internet penetration moderates a country's formal deliberative process, referring to the interaction among state institutions, the public sphere, and civil society. Using data from *Varieties of Democracy* (*V-Dem*) and the *United Nations*, we run panel analyses with a sample of 3,173 units in 167 countries from 2000 to 2018. The results showed that Internet penetration increased calls for the common good, disrespected counterarguments, narrowed the range of consultation, and expanded engagement in public deliberation. In addition, Internet penetration strengthened the effects of public sphere on reasoned justification and range of consultation, but weakened the effects of civil society on reasoned justification, common good, respectful counterarguments, and range of consultation.

Keywords

Deliberative democracy; Internet; Populism; Panel data; Public sphere; Civil society; State institutions; Cross-nation; Deliberative system; Country-level.

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1. Introduction

As one of primary sources of political legitimacy, deliberation is essential to democracy (**Manin**, 1987). Normatively, deliberative ideals embody the basic values of democracy, such as equality, respect, reason, non-coercion, and common good (**Rasmussen**, 2016). Through deliberation, instrumentally, popular support can be won, social divides can be mended, and democratization can be achieved (**Kuyper**, 2018).

As a communicative activity, deliberation is dependent on media technologies and is responsive to the technological development. The wide adoption of the Internet attracted an increasing number of studies to explore its impacts on public deliberation. A variety of findings came out and converged into the concept of populism. However, the existing studies were limited to individual levels or sites of deliberative activities, which are informal, rooted in everyday life, and participated by ordinary people. They studied neither a country's overall status of deliberative democracy nor the formal deliberative process.

In this paper, we conducted a cross-national panel study to investigate the Internet's populist impacts on a country's deliberative democracy. It had two specific objectives. One was to examine whether and to what extent the Internet penetration has populist impacts on deliberative dimensions, including reasoned justification, common good, respect counterarguments, range of consultation, and engaged society. The other was to examine how the Internet penetration moderates a country's formal deliberative process, referring to the interaction among state institutions, public sphere, and civil society. Using country-level data from *Varieties of Democracy* (*V-Dem*, **Coppedge** *et al.*, 2019b) and the *United Nations*, we run panel analyses with a sample of 3,173 records in 167 countries from 2000 to 2018.

2. Literature review

2.1. Deliberative democracy

The theory of deliberative democracy flourished in the last decade of the 20th century as the latest development in Western political philosophy. According to **Bächtiger** *et al.* (2018), deliberation is defined as

> "mutual communication that involves weighting and reflecting on preferences, values, and interests regarding matters of common concern."

Putting deliberation at the heart of democracy, deliberative democracy

> "is grounded in an ideal which people come together, on the basis of equal status and mutual respect, to discuss the political issues they face and, on the basis of those discussions, decide on the policies that will then affect their lives" (**Bächtiger** *et al.*, 2018).

Mansbridge *et al.* (2012) argued that deliberative democracy has three major functions –epistemic, ethical, and democratic. The epistemic function is to make decisions that are grounded in truth and rationality. Rationality stays at the heart of public deliberation (**Stromer-Galley**, 2007). It takes truth as the basis and is open to be judged, argued, or defended. **Habermas** (2009) pointed out that an argument is rational when it is grounded in the evidences that can be empirically verified or when it appeals to a shared normative ground. Likewise, **Steenbergen** *et al.* (2003) introduced two core properties of rational arguments. First, they have to be justified by reasons. Second, they would refer to the common good including the interests of those to be convinced.

The ethical function is to promote mutual respect among deliberative participants. Mutual respect is not only a means to lubricate effective communication but also an end to be achieved in deliberative democracy (**Mansbridge** *et al.*, 2012). Prudentially, being open to counterarguments can help accommodate competing perspectives and settle disputes in public deliberation (**Rishel**, 2011). Ethically, respecting counterarguments is to treat the other as an autonomous source of reasons, claims, and perspectives, rather than a passive subject to be ruled, which is the moral basis for mutual respect (**Gutmann**; **Thompson**, 2004).

The democratic function is to achieve inclusion of multiple and plural interests, voices, and concerns on terms of equality. **Brown** (2018) suggested that being inclusive takes two forms. One is representation, referring to elite deliberation in the representative legislature, where elected representatives act on behalf and in place of the represented (**Urbinati**, 2006). Representative inclusiveness requires that the decision-making process should entail a wide range of consultation at elite levels, covering all parts of the political spectrum and all politically relevant sectors (**Coppedge** *et al.*, 2019b).

The other is participation, which means to engage large numbers of non-elite groups and ordinary people in public deliberation (**Coppedge** *et al.*, 2019b). Participatory inclusiveness requires that deliberative rights should be granted to all citizens of interest, regardless of their origin, social status, and resource wealth (**Elstub**, 2018). Every citizen, if he or she wishes, has equal opportunity to participate in public affairs. In particular, vulnerable groups should be given a platform to express their voices and improve their disadvantaged social status (**Bächtiger** *et al.*, 2018).

One objective was to examine if and to what extent the Internet penetration has populist impacts on deliberative dimensions, including reasoned justification, common good, respect counterarguments, range of consultation, and engaged society

According to **Mansbridge** *et al.* (2012), these functions ensure that reasonably sound decisions can be achieved in an inclusive process in the context of mutual respect among citizens. These functions reveal five core dimensions of deliberative democracy:

- reasoned justification,
- common good,
- respect counterarguments,
- range of consultation,
- engaged society (**Coppedge** *et al.*, 2019b).

They denote that the normative ideal can be realized when deliberative practitioners use reasoning to justify their positions in terms of common good, acknowledge and respect counterarguments, seek a wide range of consultation, and engage a large number of ordinary citizens in deliberation.

2.2. Deliberative system

Curato and **Steiner** (2018) advocated a systemic approach to study the complexity of deliberative democracy. According to **Mansbridge** (1999), a deliberative system is composed of a variety of talks in multiple spaces, which consist of a continuum with everyday talk at one end and decision-making in political institutions at the other. Although a deliberative system can be conceptualized in different ways, prior studies generally agreed that its organizational structure includes three key components – state institutions, public sphere, and civil society (**Dryzek**; **Hendriks**, 2012; **Mansbridge** *et al.*, 2012).

State institutions take a central position in a deliberative system, as they are where ultimate binding decisions are made and implemented (**Mansbridge** *et al.*, 2012). At the periphery are public sphere and civil society, where common concerns are discussed and public opinions are formed (**Mansbridge** *et al.*, 2012). According to **Habermas** (2006), they are the critical conditions for deliberative democracy in state institutions. A self-regulating media system in public sphere can maintain independence and effectively link state institutions and civil society. An inclusive civil society can empower citizens to participate in and response to public issues.

The systemic approach offers a couple of advantages for cross-national studies (**Dryzek**, 2009; **Mansbridge** *et al.*, 2012). First, it upgrades the level of analysis from individual sites where deliberation happens to a national scale as a whole. We could compare the degree of deliberative democracy across countries. Second, it maps out connection and interaction among the components of a deliberative system. We could compare the way and the degree to which components are interdependent across countries.

2.3. The Internet and public deliberation: The rise of populism

The Internet changed the way in which public issues are deliberated. Prior studies generally illustrated a controversial role it plays. On the one hand, the Internet significantly expands the range of sources of facts and opinions for public discussion (**Schudson**, 2006). The self-generated contents of individual users reframe public agenda (**Chadwick**, 2013; **Esser**; **Strömbäck**, 2014). It also facilitates such civic activities as campaigns, protests, and debates (**Maia**, 2018). They are horizontal, circulating across the populace and without monitors (**Dányi**; **Sükösd**, 2003).

On the other hand, the Internet exacerbates fake news, hostility, and inter-group conflicts (**Fawcett** *et al.*, 2017). Due to anonymity and a lack of social cues, false information, vulgar words, and verbal attacks are prevalent in everyday online discussion to subvert normative standards that are derived from authoritative interpretations (**Rowe**, 2015). In the meanwhile, using the Internet erodes civil society and transforms it into monadic clusters of close relationships, where users talk to like-minded people and tend toward mutual affirmation (**Conover** *et al*., 2011). As a result, the Internet users are likely to have polarized attitudes and become intolerant of interfering or opposing opinions outside clusters (**Sunstein**, 2009).

The Internet's various impacts can be summarized into the concept of populism. Populism is defined as a set of ideology that "the pure people" and "the corrupted elite" are divided into two homogeneous and opposite factions (**Mudde**; **Kaltwasser**, 2018). It has three characteristics:

- the people-centrism to uphold the popular sovereignty for common interests and common will,
- the antagonism between different social classes,
- the homogenization and unity inside "the people" and "the elite" respectively (**Canovan**, 1999).

As a communicative style, populism favors charismatic leaders and their direct communication with people (**Kriesi**, 2014). Populist arguments are featured with simplified relations, emotional appeals, and demonized "others" in order to attract attention and win popular support (**Engesser**; **Fawzi**; **Larsson**, 2017).

Engesser, **Fawzi** and **Larsson** (2017) pointed out a perfect match between the Internet and populism. First, the Internet empowers ordinary people to achieve popular sovereignty through direct contact with political leaders. Populists inform people online in a direct channel, avoiding the interference or delay of the institutionalized system (**Krämer**, 2014). The Internet is instrumentalized by populists to motivate the masses and consolidate its legitimacy in a more simplified manner (**Abts**; **Rummens**, 2007). Second, the Internet fertilizes "counter publics" and "alternative media" by encouraging personalized and non-mainstream communication online (**Kruikemeier** *et al.*, 2013). Third, the inclination of in-group homogeneity and out-group resentment manifests significantly online. The algorism technology amplifies filter bubble, homophily, and echo chamber, especially in social media context (**Flaxman**; **Goel**; **Rao**, 2016). As a result, hate speech and fake news are proliferated online, where simplification and emotionalization are often employed to paint elites and others in black (**Engesser**; **Fawzi**; **Larsson**, 2017).

3. Research design

The review above illustrated two gaps in prior studies. First, they focused on individual levels or sites of public deliberation, and failed to explore a country's overall status of deliberative democracy. Second, they focused on how the Internet mediates ordinary people's deliberative activities, which are informal and rooted in everyday life. They rarely examined the formal deliberative process, which is above everyday life of ordinary people and involves the interaction among social institutions, such as the state, mass media, and civil society.

To fill the research gaps, we did a country-level analysis to explore if or to what degree the Internet adoption has populist impacts on a country's overall status of deliberative democracy as well as the formal deliberative process. Specifically, the Internet penetration rate was employed to describe the degree to which the Internet is used in a country. The deliberative degree of state institutions was adopted to represent a country's overall status of deliberative democracy, as state institutions take a central position in a country's deliberative system. The formal deliberative process referred to the interaction among three deliberative levels, including state institutions, public sphere, and civil society.

The Internet's populist impacts were examined in two ways. One was to test if the Internet penetration has direct effects on the deliberative degree of state institutions, consisting of five dimensions – reasoned justification, common good, respect counterarguments, range of consultation, and engaged society. The Internet bypasses gatekeeping of traditional mass media and elite opinion leaders, and allows decision-makers to have fast, direct, and unmediated communication to the people (**Vaccari**; **Valeriani**, 2015). Thus, online populism is supposed to have direct influence on the policy-making process in state institutions.

According to **Engesser**, **Fawzi** and **Larsson** (2017), simplification and emotionalization characterize the style of populist communication. They violate the fundamental principle of rationality as the core of deliberative democracy. Prior studies reported that most online discussions failed to use reasoning for argumentation and justification to settle disputes and facilitate discussion (**Maia**, 2018).

H1: The Internet penetration is negatively related to reasoned justification.

Populists claim to be representatives and mouthpieces of the people (**Canovan**, 1999). The empowering potential of the Internet advocates the populist call for the general will of ordinary people (**Jagers**; **Walgrave**, 2007). Thus, common good is adopted by political leaders to justify their policies.

H2: The Internet penetration is positively related to common good.

The Internet penetration helps disseminate hate speech and verbal attacks, resulting in excluding others and painting their opponents in black (**Moffitt**; **Tormey**, 2014). The principle of respect counterarguments is ignored, as the Internet penetration lowers down the moral status of public deliberation.

H3: The Internet penetration is negatively related to respect counterarguments.

As the primary antagonist in populist ideology, political elitism is inhibited by the Internet penetration, which circumvents the traditional hierarchical structure of political representation and promotes the direct, unmediated contact between political leaders and ordinary people. Thus, populist politicians are reluctant to consult other political elites in the policy-making process.

H4: The Internet penetration is negatively related to range of consultation.

The Internet penetration expands horizontal connections among ordinary people. It improves participatory inclusiveness by engaging a wide range of citizens in public deliberation.

H5: The Internet penetration is positively related to engaged society.

Besides the direct effects, we examined the moderating effects of the Internet penetration on a country's formal deliberative process, referring to the interaction among state institutions, public sphere, and civil society. The following research questions were asked to study how the Internet penetration moderates the effects of public sphere and civil society on the deliberative degree of state institutions.

RQ1: How does the Internet penetration influence the relationship between public sphere and deliberative dimensions in state institutions?

RQ2: How does the Internet penetration influence the relationship between civil society and deliberative dimensions in state institutions?

4. Method

4.1. Sample

The sample came from two sources. One is the *United Nations*, which offer the data about a country's income, education, and the Internet penetration rate. The other is *Varieties of Democracy* (*V-Dem*), one of the largest social science databases:
https://www.v-dem.net

As a collaborative international project with approximately 2, 500 experts over the world, *V-Dem* contains over 350 indicators on democracy and political systems in 177 countries since 1900. In its dataset, about half of the indicators are factual indicators that are based on existing official sources, such as constitutions, laws, and government records. The others are evaluative indicators that are based on multiple ratings provided by country experts. The coded data are processed by a sophisticated measurement model in order to reduce coder errors and improve comparability across countries and over time (see **Coppedge** *et al.*, 2019a).

We matched and merged the data from *V-Dem* and the *United Nations* to construct a balanced panel sample with 3,173 records in 167 countries[1] from 2000 to 2018. The countries under study include most of the regions in the world, covering all the continents except Antarctica. In the process of merging, a dozen of countries or regions were removed due to a lack of data.

Panel data are a kind of longitudinal data that are collected prospectively by following a group of subjects over time. A balanced panel means that all countries are observed at every time point (167 countries × 19 years = 3173 observations), avoiding the missing value problem. **Hsiao** (2005) pointed out that panel data excel in combining inter-subject differences and intra-subject dynamics. On the one hand, panel data incorporate more degrees of freedom and less multicollinearity than cross-sectional data, leading to a more accurate inference. On the other hand, panel data are suitable for testing complicated hypotheses and uncovering dynamic relationships. In this study, panel data allowed us to consider intertemporal dynamics and individualities of 167 countries, and minimized estimation biases that are derived from simply aggregating countries by year or averaging indicators across time by country.

4.2. Measurement

The indicators in *V-Dem* were adopted to measure *reasoned justification*, *common good*, *respect counterarguments*, *range of consultation*, *engaged society*, *public sphere*, and *civil society*[2]. They were all evaluative indicators coded by country experts. The original scales were all ordinal and converted to interval by the measurement model. *Reason justification* was measured by the extent to which political leaders give reasoned justifications for their positions before a decision is made on an important policy. *Common good* was measured by the extent to which political leaders justify their positions in terms of common good for society, understood either as the greatest good for the greatest number or as helping the least advantaged in a society. *Respect counterarguments* was measured by the extent to which political leaders allow, acknowledge, and value counterarguments. *Range of consultation* was measured by the range of political elites or representatives who are consulted before a decision is made on an important policy. *Engaged society* was measured by the extent to which ordinary people are involved in public deliberation before a decision is made on an important policy.

According to **Habermas** (2006), *public sphere* is defined as a communication structure based on mass media and a self-regulating media system in public sphere is critical for deliberative democracy. In this study, *public sphere* was measured by "freedom of expression and alternative sources of information index", which specifies the degree of freedom of mass media-based public sphere, including press and media freedom, the freedom of public deliberation, and the freedom of academic and cultural expression. According to **Coppedge** *et al*. (2019b), *civil society* refers to a variety of social organizations through which ordinary citizens pursue their collective interests and ideals. In this study, *civil society* was measured by "core civil society index", which describes the degree to which autonomous citizens organize freely and actively to pursue civic goals.

> Other objective was to examine how the Internet penetration moderates a country's formal deliberative process, referring to the interaction among state institutions, public sphere, and civil society

Internet penetration was measured by the number of Internet users per 100 inhabitants in a country. We also controlled a country's *income* and *education*, which are supposed to affect deliberative democracy (**Dryzek**, 2009). They were measured respectively by the Income Index and the Education Index in the *Human Development Reports* published by the *United Nations*. In addition, *Internet control* was included in the statistical models. It describes the degree to which the state regulates the Internet and may confound the relationship between Internet penetration and deliberative democracy. *Internet control* was measured by combining two indicators in *V-Dem* –"government Internet filtering in practice" and "government Internet shut down in practice"[2].

4.3. Analysis

With a balanced panel sample of 3, 173 records, we first run descriptive statistics about all the variables used in this study (see Table 1). We also diagnosed potential multicollinearity between the independent variables – Internet penetration, public sphere, civil society, Internet control, education, and income. The maximum variance inflation factor (VIF) was 6.746, less than 10, indicating no serious problem of multicollinearity.

Then, we run the xtreg function in *Stata 15* software to analyze data. There are two regression models that can be used – fixed effects model (FEM) and random effects model (REM). We started with the Hausman specification test to determine which model is needed. The result supported fixed effects model.

> The normative ideal can be realized when deliberative practitioners use reasoning to justify their positions in terms of common good, acknowledge and respect counterarguments, seek a wide range of consultation, and engage a large number of ordinary citizens in deliberation

Model 1 was first created to test the main effects of the Internet penetration on five dimensions of deliberative democracy. Besides the main effects, Model 2 was created to examine the moderating effects of the Internet penetration on the interaction between public sphere / civil society and deliberative dimensions. Since the moderator was a continuous variable, the mean centering was implemented for the independent variables to make sure that zero is a meaningful value.

Table 1. Descriptive statistics

Variable	N	Mean (SD)	Min, Max	Description
Reasoned justification	3173	0.684 (1.065)	-2.500, 3.308	The higher the score, the higher the degree of reasoned justification
Common good	3173	0.673 (1.109)	-3.184, 3.548	The higher the score, the higher the degree of common good
Respect counterarguments	3173	0.908 (1.188)	-3.012, 4.455	The higher the score, the higher the degree of respect counter arguments
Range of consultation	3173	0.977 (1.187)	-3.086, 3.984	The higher the score, the higher the degree of range of consultation
Engaged society	3173	0.344 (1.430)	-3.703, 3.261	The higher the score, the higher the degree of engaged society
Internet control	3173	0 (0.723)	-3.575, 1.345	The higher the score, the higher the degree of internet control
Internet penetration	3023	0 (29.250)	-30.180, 69.820	0 - 100, 0 being the lowest level
Public sphere	3173	0 (0.272)	-0.678, 0.296	0 - 1, 0 being the lowest level
Education	3126	0 (0.187)	-0.490, 0.340	0 - 1, 0 being the lowest level
Income	3173	0 (0.183)	-0.419, 0.331	0 - 1, 0 being the lowest level
Civil society	3173	0 (0.321)	-0.740, 0.260	0 - 1, 0 being the lowest level

5. Results

For the main effects, the Internet penetration is positively related to common good (β = .002, *SE* = .001, p < .01) (Table 3) and engaged society (β = .004, *SE* = .001, p < .001) (Table 6), and is negatively related to respect counterarguments (β = -.004, *SE* = .001, p < .001) (Table 4) and to range of consultation (β = -.001, *SE* = .001, p < .1) (Table 5). Thus, H2, H3, and H5 are supported, H4 is mildly supported, and H1 is rejected. For the moderating effects, the Internet penetration strengthens the positive effects of public sphere on reasoned justification (β = .020, *SE* = .004, p < .001) (Table 2) and range of consultation (β = .012, *SE* = .004, p < .01) (Table 5), and the positive effect of civil society on engaged society (β = .011, *SE* = .004, p < .01) (Table 6). The Internet penetration weakens the positive effects of civil society on reasoned justification (β = -.009, *SE* = .004, p < .05) (Table 2), common good (β = -.021, *SE*=.004, p < .001) (Table 3), respect counterarguments (β = -.012, *SE* = .003, p < .001) (Table 4), and range of consultation (β = -.015, *SE* = .003, p < .001) (Table 5).

Table 2. Fixed effects on reasoned justification

Items	Model 1		Model 2	
	β	*SE*	β	*SE*
Internet penetration	0.000	0.001	0.000	0.001
Public sphere	0.946***	0.150	1.206***	0.155
Civil society	0.546***	0.104	0.453***	0.107
Income	0.100	0.415	0.116	0.414
Education	1.230***	0.318	1.257***	0.315
Internet control	0.160***	0.020	0.117***	0.021
Public sphere × Internet penetration			0.020***	0.004
Civil society × Internet penetration			-0.009*	0.004
Constant	0.704***		0.680***	
R^2	0.119		0.132	
F-test	63.106***		53.398***	

Note: unstandardized coefficients
N = 3,173, Countries = 167
**p* < .05, ***p* < .01, ****p* < .001

Table 3. Fixed effects on common good

Items	Model 1		Model 2	
	β	*SE*	*β*	*SE*
Internet penetration	0.002**	0.001	0.002**	0.001
Public sphere	2.871***	0.158	2.746***	0.161
Civil society	0.768***	0.109	0.628***	0.111
Income	2.131***	0.438	2.401***	0.429
Education	-2.010***	0.335	-2.035***	0.327
Internet control	-0.199***	0.021	-0.096***	0.022
Public sphere × Internet penetration			0.004	0.005
Civil society × Internet penetration			-0.021***	0.004
Constant	0.680***		0.716***	
R^2	0.270		0.305	
F-test	172.842***		153.604***	

Note: unstandardized coefficients
N = 3,173, Countries = 167
*p < .05, **p < .01, ***p < .001

Table 4. Fixed effects on respect counterarguments

Items	Model 1		Model 2	
	β	*SE*	*β*	*SE*
Internet penetration	-0.004***	0.001	-0.004***	0.001
Public sphere	2.960***	0.139	2.941***	0.145
Civil society	0.712***	0.096	0.627***	0.100
Income	0.399	0.386	0.534	0.385
Education	-0.827**	0.295	-0.835**	0.293
Internet control	0.053**	0.018	0.097***	0.020
Public sphere × Internet penetration			0.005	0.004
Civil society × Internet penetration			-0.012***	0.003
Constant	0.926***		0.939***	
R^2	0.377		0.384	
F-test	282.742***		218.691***	

Note: unstandardized coefficients
N = 3,173, Countries = 167
*p < .05, **p < .01, ***p < .001

Table 5. Fixed effects on range of consultation

Items	Model 1		Model 2	
	β	*SE*	*β*	*SE*
Internet penetration	-0.001^	0.001	-0.001^	0.001
Public sphere	3.682***	0.133	3.741***	0.138
Civil society	0.487***	0.092	0.370***	0.095
Income	0.597	0.369	0.744*	0.368
Education	-0.047	0.282	-0.047	0.280
Internet control	0.034^	0.017	0.067***	0.019
Public sphere × Internet penetration			0.012**	0.004
Civil society × Internet penetration			-0.015***	0.003
Constant	0.982***		0.989***	
R^2	0.419		0.425	
F-test	337.019***		259.329***	

Note: unstandardized coefficients
N = 3, 173, Countries = 167
^p < .1, *p < .05, **p < .01, ***p < .001

Table 6. Fixed effects on engaged society

Items	Model 1		Model 2	
	β	*SE*	*β*	*SE*
Internet penetration	0.004***	0.001	0.005***	0.001
Public sphere	2.500***	0.155	2.589***	0.160
Civil society	0.806***	0.107	0.876***	0.110
Income index	0.288	0.428	0.140	0.426
Education index	0.841*	0.327	0.857**	0.325
Internet control	-0.726***	0.020	-0.786***	0.022
Public sphere × penetration			-0.001	0.004
Civil society × penetration			0.011**	0.004
Constant	0.344***		0.322***	
R^2	0.432		0.441	
F-test	355.880***		277.161***	

Note: unstandardized coefficients
N = 3, 173, Countries = 167
*p < .05, **p < .01, ***p < .001

6. Discussion

The supported hypotheses (H2, H3, H4, and H5) indicated the significant main effects the Internet penetration has on common good, respect counterarguments, range of consultation, and engaged society. The rejected hypothesis (H1) showed that the policy-making of state institutions is still a rational-critical process and is capable of resisting populist simplification and emotionalization.

This study also reported the significant moderating effects, referring to how the Internet penetration moderates the effects of civil society and public sphere on state institutions. The statistical results showed that both public sphere and civil society have significant positive main effects on all deliberative dimensions in state institutions. These effects are moderated by the Internet penetration. Specifically, the Internet penetration weakens the effects of civil society on reasoned justification, common good, respect counterarguments, and range of consultation, but strengthens the effects of public sphere on reasoned justification and range of consultation.

Civil society is where citizens organize to pursue their collective goals. It is held together by social norms that presume equality, rationality, respect, and common good (**Lash**, 2002). In this study, these norms are expressed in the significant positive main effects of civil society on state institutions. The moderating results showed that they are sabotaged by the Internet penetration. On the one hand, the solidarity of civil society is built upon the common good of society under the principle of equality. It is undermined by online flows of information, which break civil society down into small-scale tribes that are affectively bonded by shared cultural values rather than social norms (**Castells**, 1996). Different from the traditional civil society, the tribes are more concerned with their own demands and tend to ignore the common good as well as the different opinions of the others (**Lash**, 2002). On the other hand, civil society is organized on the ground of ethics and rationality (**Lash**, 2002). They are subverted by online populism, which favors emotion over rationality and disrespects counterarguments (**Caiani**; **Graziano**, 2016; **Hameleers**; **Bos**; **De-Vreese**, 2016). As the Internet penetration increases, the traditional civil society contributes less to common good, range of consultation, reasoned justification, and respect counterarguments.

Public sphere functions to produce public opinions, which originate from various sources in a society and attempt to influence the policy-making process in state institutions. First, the Internet penetration enhances the visibility of a wide range of issues and voices, especially marginalized ones. They have opportunities to be discussed in public sphere by elites. Consequently, an expanded range of public agenda and public opinion is provided for state institutions to take into consideration when making policies. Thus, the Internet penetration strengthens the effect of public sphere on range of consultation. Second, rationality is emphasized in public sphere. As the Internet penetration increases irrational populism, a well-developed public sphere functions to restore rationality by effectively filtering irrational voices through mass media system. The Internet penetration spotlights the role of public sphere in feeding rationalized opinions to the state's policy-making. Thus, the Internet penetration strengthens the effect of public sphere on reasoned justification.

The moderating effects above indicated how the Internet penetration influences a country's formal deliberative process. On the one hand, civil society is anchored in everyday life and is composed of ordinary people, who are more susceptible to online populism. Thus, the Internet penetration sabotages social norms of civil society

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and weakens its contribution to deliberative democracy. On the other hand, public sphere is composed of elite opinion leaders, who are less susceptible to populist calls and are more capable of using the Internet to achieve their ideals. Thus, the Internet penetration not only expands the participatory base of public sphere but also highlights its strength of rationality.

> The supported hypotheses (H2, H3, H4, and H5) indicated the significant main effects the Internet penetration has on common good, respect counterarguments, range of consultation, and engaged society

7. Conclusion and limitations

This paper contributed a couple of insights. First, it offered the solid quantitative evidences for the widespread worry that the Internet brings populism to deliberative democracy. On the Internet, populism was expressed as a communicative style, for example, calling for common good, disrespecting counterarguments, narrowing the range of elite consultation, and expanding grassroot deliberation. Second, it was the first time to explore online populist influence on a country's deliberative process. The findings not only supported the previous arguments about how the Internet undermines civil society but also shed a new light on the role of public sphere in resisting online populism and protecting deliberative democracy.

Despite of the valuable insights, this paper had several limitations. First, we analyzed the aggregated data of a total of 167 countries. On the one hand, using the aggregated data increased the potential risk of unobserved heterogeneity, which is a common problem in cross-national research. On the other hand, the results only presented a global tendency as a whole and failed to account for the differences between countries. We were aware that dividing countries into several homogeneous groups would produce more reliable results and allow us to compare them between groups. However, we worried that grouping countries would generate too many significant results, which are far more complicated and cannot be fully discussed in a single paper. Thus, we decided to present a general tendency in this paper and explore the differences between countries in the future studies.

Second, when coding deliberative dimensions, coders in *V-Dem* were asked to focus on the most typical performances of prominent national political leaders. Their assessments cannot fully represent the deliberative degree of state institutions. Third, "freedom of expression and alternative sources of information index" was employed to measure public sphere. It focused on freedom of speech and mass media system, but cannot cover the full range of dimensions the concept of public sphere has. Fourth, due to a lack of data, the statistical models cannot include relevant variables that influence deliberative democracy, for example, according to **Dryzek** (2009), shared language, political structure, political culture, religion, ideological conformity, and segmental autonomy.

> The Internet penetration weakens the effects of civil society on reasoned justification, common good, respect counterarguments, and range of consultation, but strengthens the effects of public sphere on reasoned justification and range of consultation

8. Notes

1. List of countries

Afghanistan, Albania, Algeria, Angola, Argentina, Armenia, Australia, Austria, Azerbaijan, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Bulgaria, Burkina Faso, Burma/Myanmar, Burundi, Cambodia, Cameroon, Canada, Cape Verde, Central African Republic, Chad, Chile, China, Colombia, Comoros, Costa Rica, Croatia, Cuba, Cyprus, Czech Republic, Democratic Republic of the Congo, Denmark, Djibouti, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Eritrea, Estonia, Ethiopia, Fiji, Finland, France, Gabon, Georgia, Germany, Ghana, Greece, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hungary, Iceland, India, Indonesia, Iran, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Lithuania, Luxembourg, Macedonia, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Mauritania, Mauritius, Mexico, Moldova, Mongolia, Montenegro, Morocco, Mozambique, Namibia, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Republic of the Congo, Romania, Russia, Rwanda, Sao Tome and Principe, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, Solomon Islands, South Africa, South Korea, Spain, Sri Lanka, Sudan, Suriname, Sweden, Switzerland, Syria, Tajikistan, Tanzania, Thailand, The Gambia, Timor-Leste, Togo, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, United States of America, Uruguay, Uzbekistan, Vanuatu, Venezuela, Vietnam, Yemen, Zambia, Zimbabwe.

2. Codebook of evaluative indicators

2.1. Reasoned justification

Question: When important policy changes are being considered, i.e. before a decision has been made, to what extent do political elites give public and reasoned justifications for their positions?

Responses:

0: No justification. Elites almost always only dictate that something should or should not be done, but no reasoning about justification is given. For example, "We must cut spending."

1: Inferior justification. Elites tend to give reasons why someone should or should not be for doing or not doing something, but the reasons tend to be illogical or false, although they may appeal to many voters. For example, "We must cut spending. The state is inefficient." [The inference is incomplete because addressing inefficiencies would not necessarily reduce spending and it might undermine essential services.]

2: Qualified justification. Elites tend to offer a single simple reason justifying why the proposed policies contribute to or detract from an outcome. For example, "We must cut spending because taxpayers cannot afford to pay for current programs."

3: Sophisticated justification. Elites tend to offer more than one or more complex, nuanced and complete justification. For example, "We must cut spending because taxpayers cannot afford to pay for current government programs. Raising taxes would hurt economic growth, and deficit spending would lead to inflation."

2.2. Common good

Question: When important policy changes are being considered, to what extent do political elites justify their positions in terms of the common good?

Responses

0: Little or no justification in terms of the common good is usually offered.

1: Specific business, geographic, group, party, or constituency interests are for the most part offered as justifications.

2: Justifications are for the most part a mix of specific interests and the common good and it is impossible to say which justification is more common than the other.

3: Justifications are based on a mixture of references to constituency/party/group interests and on appeals to the common good.

4: Justifications are for the most part almost always based on explicit statements of the common good for society, understood either as the greatest good for the greatest number or as helping the least advantaged in a society.

2.3. Respect counterarguments

Question: When important policy changes are being considered, to what extent do political elites acknowledge and respect counterarguments?

Responses:

0: Counterarguments are not allowed or if articulated, punished.

1: Counterarguments are allowed at least from some parties, but almost always are ignored.

2: Elites tend to acknowledge counterarguments but then explicitly degrade them by making a negative statement about them or the individuals and groups that propose them.

3: Elites tend to acknowledge counterarguments without making explicit negative or positive statements about them.

4: Elites almost always acknowledge counterarguments and explicitly value them, even if they ultimately reject them for the most part.

5: Elites almost always acknowledge counterarguments and explicitly value them, and frequently also even accept them and change their position.

2.4. Range of consultation

Question: When important policy changes are being considered, how wide is the range of consultation at elite levels?

Clarification: Because practices vary greatly from policy to policy, base your answer on the style that is most typical of policymaking.

Responses:

0: No consultation. The leader or a very small group (e.g. military council) makes authoritative decisions on their own.

1: Very little and narrow. Consultation with only a narrow circle of loyal party/ruling elites.

2: Consultation includes the former plus a larger group that is loyal to the government, such as the ruling party's or parties' local executives and/or women, youth and other branches.

3: Consultation includes the former plus leaders of other parties.

4: Consultation includes the former plus a select range of society/labor/business representatives.

5: Consultation engages elites from essentially all parts of the political spectrum and all politically relevant sectors of society and business.

2.5. Engaged society

Question: When important policy changes are being considered, how wide and how independent are public deliberations?

Responses:

0: Public deliberation is never, or almost never allowed.

1: Some limited public deliberations are allowed but the public below the elite levels is almost always either unaware of major policy debates or unable to take part in them.

2: Public deliberation is not repressed but nevertheless infrequent and non-elite actors are typically controlled and/or constrained by the elites.

3: Public deliberation is actively encouraged and some autonomous non-elite groups participate, but it is confined to a small slice of specialized groups that tends to be the same across issue-areas.

4: Public deliberation is actively encouraged and a relatively broad segment of non-elite groups often participate and vary with different issue-areas.

5: Large numbers of non-elite groups as well as ordinary people tend to discuss major policies among themselves, in the media, in associations or neighborhoods, or in the streets. Grass-roots deliberation is common and unconstrained.

2.6. Government Internet filtering in practice

Question: How frequently does the government censor political information (text, audio, images, or video) on the Internet by filtering (blocking access to certain websites)?

Responses:

0: Extremely often. It is a regular practice for the government to remove political content, except to sites that are pro-government.

1: Often. The government commonly removes online political content, except sites that are pro-government.

2: Sometimes. The government successfully removes about half of the critical online political content.

3: Rarely. There have been only a few occasions on which the government removed political content.

4: Never, or almost never. The government allows Internet access that is unrestricted, with the exceptions mentioned in the clarifications section.

2.7. Government Internet shut down in practice

Question: How often does the government shut down domestic access to the Internet?

Responses:

0: Extremely often. It is a regular practice for the government to shut down domestic access to the Internet.

1: Often. The government shut down domestic access to the Internet numerous times this year.

2: Sometimes. The government shut down domestic access to the Internet several times this year.

3: Rarely but there have been a few occasions throughout the year when the government shut down domestic access to Internet.

4: Never, or almost never. The government does not typically interfere with the domestic access to the Internet.

2.8. Freedom of expression and alternative sources of information index

Question: To what extent does government respect press and media freedom, the freedom of ordinary people to discuss political matters in the public sphere, as well as the freedom of academic and cultural expression?

Aggregation: The index is formed by taking the point estimates from a Bayesian factor analysis model of the indicators for media censorship effort, harassment of journalists, media bias, media self-censorship, print/broadcast media critical, and print/broadcast media perspectives, and freedom of academic and cultural expression.

2.9. Core civil society index

Question: How robust is civil society?

Aggregation: The index is formed by taking the point estimates from a Bayesian factor analysis model of the indicators for CSO (civil society organization) entry and exit, CSO repression, and CSO participatory environment.

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Technology and democracy: the who and how in decision-making. The cases of Estonia and Catalonia

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Abstract

This paper focuses on the use of technology to improve democracy, comparing the cases of Estonia and Catalonia. Both examples are closely related in their use of technology to further democratize the decision-making processes, but have opposite starting points. Estonia's internet voting system is an offshoot of the comprehensive e-governance system developed by the Estonian government. It is meant to make it more convenient for people to vote and, thus, easier for them to take part in elections. In Catalonia, the online participation system *Decidim*, initially set up in the city of Barcelona, represents a bottom-up project that emerged from the 15 May protests and aims to make the representative democratic system more direct and participatory. In our comparison we approach both paradigmatic cases from a theoretical reflection on the ideal types of democracy in relation to how decisions are made and by whom. Both projects have evolved and integrated new features that draw them together. First, internet voting is able to reach wider portions of society and digitally transform the Public Administration. Second, online participation platforms increase the potential for collecting citizens' proposals and enriching discussions. These features make them more like a mixed model which, in the current model of representative democracy, creates spaces for a more direct and deliberative democracy.

Keywords

Internet voting; Online participation; Digital platforms; Representative democracy; Aggregative democracy; Direct democracy; Deliberative democracy; Estonia; Catalonia; *Decidim*.

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Note

The authors contributed in the same manner in the current piece of work.

1. Introduction

In this paper we analyse how democratic decisions are made in the 21st century given the opportunities provided by new technologies. We draw on two case studies, Estonia and Catalonia, as well as on the discussion of democratic deepening and innovation that has taken place in recent decades (**Barrientos-del-Monte**, 2019). Thus, the empirical focus of our study is on these two experiences that seek to boost citizen involvement in decision-making by means of digital resources, such as participatory platforms, e-government, web and mobile applications, and electronic voting systems.

Assessing the quality of decision-making processes is no simple task, despite the overwhelming body of literature on the subject. It is not the aim of this paper to review this literature in depth, but rather to focus our attention on two threads of the conceptual debate: the who and how of democratic public decision-making. First, in the face of possible democratic innovations, we must ask whether the ultimate responsibility for decision-making lies with elected representatives or directly with the public. In both countries, new participatory technologies have followed the representative model, but they have also raised tensions and opened up clear opportunities for direct democracy. Second, we also need to consider how decisions are made. To flesh out this second point we will use the contrast between aggregative and deliberative models of democracy. As we will show, Estonia's experience is closer to the first model, while Catalonia's is closer to the second. Both cases are paradigmatic of the discourses on how to incorporate technology in democracy that are embedded in academia, in civil society, and public management.

Finally, we must not forget the need to situate both the empirical cases and the conceptual debate they ignite in a broader context where democracy is currently facing major challenges. It must be borne in mind that we are writing this paper amidst a pandemic that has threatened not only our health, but also our economy, our society, our political institutions and, of course, our democratic forms of decision-making.

2. Models of democracy, decision-making and new technologies

Democracy has been one of the most discussed terms in political thought, although it is still a multifaceted concept that can be approached from many different angles. Some analysts consider that the noun "democracy" has been so adjectivised (popular, elitist, participatory, direct, representative, deliberative, real, etc.) that we must be careful not to muddle and confuse the levels of analysis. We therefore propose to approach the term from the dual perspective of the "who" and "how" of democratic governance.

The combination of who and how in decision-making is useful for differentiating between democratic models, and thus for interpreting our empirical studies theoretically. In the following table we cross the two dimensions of analysis and identify four scenarios, which we label as democracy of the ancients, democracy of the moderns, representative-deliberative democracy, and direct-aggregative democracy.

Table 1. Models of democracy according to how and by whom decisions are made

		Who makes decisions?	
		Representative democracy	Direct democracy
How are decisions made?	Aggregative democracy	Democracy of the moderns	Direct-aggregative democracy
	Deliberative democracy	Representative-deliberative democracy	Democracy of the ancients

The current crisis of modern democracy, exemplified by the *15 May* slogan *No nos representan* (They don't represent us), raises questions about the future of democracy. A democracy that is torn between returning to its ancient roots (recreating the old assemblies); opting for a direct democracy that would do away with representative intermediaries and, in today's societies, be expressed through voting (referendums, citizens' initiatives and consultations) or even direct government (*Government as a platform*, *Wikidemocracy*, *Liquid democracy*); or regenerating traditional representative democracy with deliberative aspects that improve how and by whom (through sortition) public decisions are made. All of this is greatly facilitated by the potential of new technologies. The case studies presented below can be interpreted in the light of this debate.

2.1. Representative democracy and direct democracy

We should begin by examining the distinction between direct democracy (of the ancients) and representative democracy (of the moderns). In 5th century BC Athens, trust was placed in the people, while mechanisms of representation were decisions directly, without any intermediation. At the same time, distrust in politicians manifested itself in the absence of professionalised politics and in institutions such as ostracism (an example of drastic control over those who held public office) and the lottery (anyone could hold office). This model, which we can define as direct-deliberative democracy, succumbed to an acute crisis and would not resurface until more than twenty centuries later under the new guise of modern democracy.

The new landscape saw the tables turn. As suggested by several authors (**Manin**, 1997; **Pitkin**, 1985), emerging democratic institutions started to be built on trust in representatives and distrust in the people. While elected representatives took on a leading role in public decision-making, citizens became increasingly passive spectators who limited themselves to voting from time to time, only to be quickly swallowed up by a complex web of institutions that distanced them from political activity. Weariness with this model has manifested itself in the emergence of new social movements and new democratic proposals and innovations that seek to broaden the spheres of citizen participation (**Mair**, 2013; **Rosanvallon**, 2011; **Von-Reybrouck**, 2017).

The experiences presented in this paper add to this debate, highlighting the need to both improve how representative democracy works and promote direct democracy initiatives. Although these approaches differ, they often coincide in their references to new technologies, sometimes used to enhance the performance of election systems and other times to gather citizens' proposals without political intermediation.

2.2. Between aggregation and deliberation

As explained earlier, we are interested in exploring not only who exercises power in democracy, but also how this takes place. Thus, beyond the well-known distinction between direct and representative democracy, we find a second distinction between aggregative and deliberative models (**Barber**, 2020; **Mansbridge**, 1981), i.e. between decision-making processes based on individual voting and those based on collective dialogue. Both models coexist in the experiences we intend to analyse.

On the one hand, aggregative democracy holds that the best way to make decisions is precisely by aggregating individual preferences as expressed through each citizen's vote. This perspective is linked to the utilitarian positions of the 19th century and was later developed by the advocates of an economic theory of democracy (**Downs**, 1957; **Schumpeter**, 1994). Aggregative democracy thus emphasises individual preferences and how these are aggregated through voting processes. In this sense, it is commonly said that aggregative democracy stems from a view of people as selfish maximisers of their individual preferences, as in **Mcpherson**'s (1964) possessive individualism.

Aggregative democracy also prompts us to ask whether individual competences and abilities are enough to produce good collective decisions. In this respect, **Manin** (1997) and **Sartori** (2007) remind us that the great advantage of representative models is that, despite relying on the votes of uninformed or unknowledgeable people, collective decisions do not suffer because voters do not directly make decisions, but instead use their vote to choose those who will. Thinking about our case studies, we should ask whether vote aggregation works in the same way when we choose representatives as when we intend to make decisions; that is, when we move towards forms of direct democracy.

We also need to consider what minimum rules and criteria we should demand from aggregation processes. The quality of aggregative democracy is usually linked to voter turnout and whether or not the voter profile is biased. Both criteria should be taken into account when analysing our case studies, especially considering the impact of new technologies on participation levels and the type of people who take part. We know, in this regard, that digital platforms favor the participation of professional, middle-class, and younger-than-average people in face-to-face processes (**Klinger**; **Russmann**, 2015; **Rottinghaus**; **Escher**, 2020).

On the other hand, over the last decades we have witnessed a broad academic debate around the deliberative model (**Besson**; **Martí**, 2006; **Fishkin**, 1991; **Gutmann**; **Thompson**, 2004; **Habermas**, 1984). Positions have oscillated between idealists who draw on **Habermas**'s (1984) communicative ideal and pragmatists who include more flexible and emotional forms of discourse (**Bächtiger** *et al.*, 2010). Nowadays, the balance has shifted towards the latter. It should also be borne in mind that deliberative experiences were at first rather experimental, such as deliberative surveys (**Fishkin**, 1991). Today, deliberative initiatives are increasingly linked to real and effective decision-making processes, for example the citizens' assemblies in Ireland, Canada and Belgium (**Ganuza**; **Mendiharat**, 2020). The digital experiences that we will analyse in the case of Catalonia involve this deliberative dimension, but we must determine whether they have a relevant scope and a real impact on public decisions.

In any case, it is important to know what conditions make deliberative democracy work well. We will highlight two of them. Firstly, deliberative democracy does not work by aggregating votes, but by encouraging different people to exchange their views. In other words, instead of conceiving people as being selfish and incapable of coming together, this model is based on the idea that we are indeed capable of meeting, engaging in discussion and even moving forward together despite our differences of opinion. We should therefore look at the Estonian and Catalan experiences in terms of their ability to foster an exchange of views and the conditions that are conducive to this (**Fischer**, 2003; **Hajer**; **Wagenaar**, 2003).

Secondly, for deliberation to succeed, it requires citizens who are not only tolerant but also respectful and able to put themselves in the place of others. Deliberation does not demand, at least in its pragmatic versions, that consensus be reached, but that the positions of others be listened to and respected. In this regard, as **Barber** (1984) aptly explains, in a deliberative process not only are views exchanged but, just as importantly, relationships are established that allow us to understand and recognise one another. This is a reflection that we will need to transfer to our case studies by analysing to what extent those experiences facilitate an exchange of views and mutual understanding and recognition. This will depend on several variables, such as the length of time the participatory process lasts, the number of times we can interact online with the same people and how the online spaces for deliberation are designed.

2.3. Technology at the service of different models of democracy

Society and politics are becoming more digital, and this can be an opportunity to renew and transform the prevailing model of representative democracy towards more participatory models of direct or deliberative democracy. However, the use of digital technologies does not imply an automatic or deterministic transformation of democracy (**Morozov**, 2013). The terms digital democracy and e-democracy are often used to describe this digital move, but we need to analyse specific cases where digital tools have been implemented and study their link to the political system overall if we are to determine their true transformative potential. The digitalization of democracy or the implementation of e-democracy implies embracing in certain ways specific models of democracy that depend on how political decisions are made and by whom.

Digital technologies can transform the classical, "of the moderns" model of representative democracy through three dimensions:

a) Political disintermediation, that is when citizens make political decisions directly thanks to digital platforms and electronic voting, without the need for representatives. Digitally enabled disintermediation processes have been advocated by protest movements criticising the representative political elite (e.g., the *15 May* movement) and by new parties such as the pirate parties, *Movimento 5 Stelle*, *Podemos* and *BCNenComú*. However, the use of platforms in these parties has not eliminated political representation within the parties themselves and in some cases has even reinforced central leadership through the easy holding of online plebiscites (**Deseriis**; **Vittori**, 2019). From the opposite point of view, which is often neoliberal in nature, the possibility is raised that by extending the use of platforms and artificial intelligence systems such as algorithms or blockchain, the role of government, political institutions and public administration can be reduced to coordination and law and order. For example, *Government as a Platform* proposals conceive of government as an open-source technological platform where active users can make all political decisions, collaborate with each other and innovate, without the need for intermediaries (**O'Reilly**, 2011).

b) Large-scale, cross-level political participation and deliberation, that is where platforms broaden areas, spaces and topics for participation and deliberation and make it possible to gather numerous proposals and encourage multiple citizen discussions. The so-called complex participatory platforms[1] offer a wide array of functions, are highly flexible in terms of combining and organising processes, enable app and social media integration, and possess technical crowdsourcing capabilities. In this regard, these new technologies can push the limits of representative democracy where citizens only vote in elections or participate in specific processes that are restricted in time, topic and impact.

c) Open government, that is digitalisation focussed mainly on improving the performance of representative government through increased transparency, data circulation, accountability of the representatives and citizen collaboration in public policy (**Oszlak**, 2014). In this case, the perspective is top-down and technology serves to deliver better public services, develop better public policies through citizen participation and achieve greater legitimacy of representative institutions (**Fung**, 2015).

3. The case studies: Estonia and Catalonia

For our study, the cases of Estonia and Catalonia have been chosen as paradigmatic and revealing examples (**Yin**, 2019) of how technological innovations serve different models of democracy and how these models may eventually evolve over time. Our description of these cases is based on previous studies employing various quantitative and qualitative research techniques and on our review of how these technological innovations have developed in these two cases.

3.1. Methodology

Estonia and Catalonia have been chosen because they are both well positioned in indices concerning democratic quality[2] and their population's access to new technologies,[3] but they differ in terms of their use in the political system. As we shall see, Estonia has taken a mainly top-down, managerial approach to the expansion of e-voting to all levels of government and e-government, while in Catalonia technologies have been used more to facilitate and broaden local participatory processes with elements of deliberative and direct democracy. In Catalonia, the impetus for participatory platforms initially came from the urban social movements that emerged after the economic crisis, although many political institutions are now promoting their deployment (**Bua**; **Bussu**, 2020). This different use of technologies is in line with Spain's (and thus Catalonia's) much better results in the deliberative and participatory aspects of some democratic quality indices, such as the *V-DEM* (2020, p. 34).

For the case studies presented below, we have drawn on various studies and reports that have employed different quantitative techniques (e.g. analysis of the number of participants and other data from e-voting and participatory platforms) and qualitative techniques (e.g. interviews with officials from the public administrations involved, interviews with experts, and reviews of official documents and the prevailing legal framework).

The analysis of the Estonian data comes mainly from studies conducted to analyse the cost-efficiency of the Estonian online voting model (**Krimmer**; **Duenas-Cid**; **Krivonosova**, 2021), as well as from the contagion effect that ensued in other parts of the Estonian administration after the voting system was developed (**Krimmer**; **Duenas-Cid**, 2019). In both cases, the information gathered comes from in-depth interviews with experts, direct observation of the development of online voting, and the analysis of secondary data and applicable legislation.

Data on the Catalan case come from previous studies examining the number of registered citizens and the proposals and comments made on the *Decidim* platform in Catalan municipalities (**Borge**; **Balcells**; **Padró-Solanet** *et al.*, 2018; **Borge**; **Balcells**; **Padró-Solanet**, 2019) and have been brought up to date by observing the current development and expansion of this platform. In these studies, interviews and surveys were also carried out with the public officials in charge of the platform's deployment.

3.2. Estonia

Background

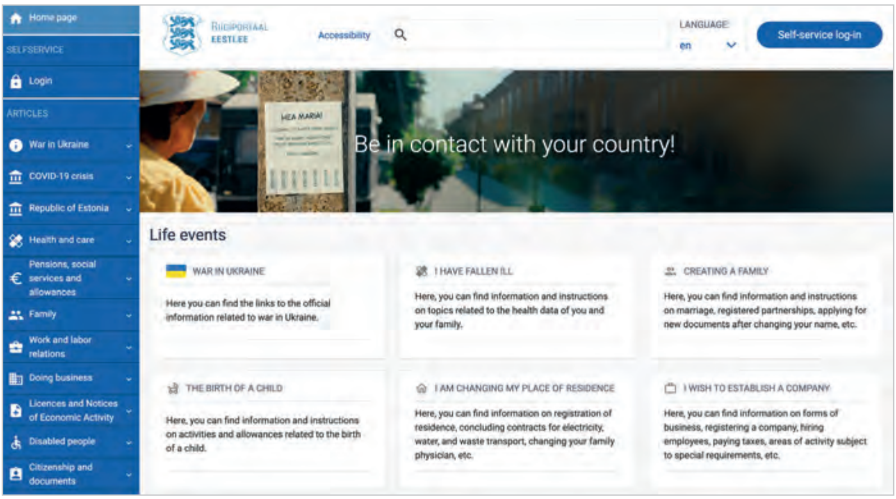
Estonia, the Digital Republic of the Baltic (**Heller**, 2017), has in recent years become e-Estonia, a benchmark in public administration's digitalisation (**Alvarez** *et al.*, 2009; **Kitsing**, 2011). The country's transformation from yet another post-Soviet republic to contemporary Estonia can be explained, according to **Kalvet** (2012), by

- the informal leadership of banks in developing the online business model;
- civil servants trained and motivated in the field of digital technologies;
- a political environment focussed on the development of an e-governance model as a driver of the country's development (**Ernsdorff**; **Berbec**, 2007);
- the legal framework's quick adaptation to the needs of the country's digitalisation process (**Drechsler**; **Madise**, 2004);
- the creation of a stable funding model to facilitate such development;
- the creation and widespread adoption of an electronic identity document (Digital ID); and
- public-private cooperation to legitimise and give substance to the e-government model.

Sarapuu and **Saarnit** (2020) add that this process ties in with the transformation of the Soviet public administration model and its replacement with one that is decentralised, privatised, neo-liberalised and in line with the predispositions towards independence and individualism that are so strongly rooted in Estonian culture.

The development of the Estonian e-government model and, thus, the online voting system, follows a clear top-down approach: it is proposed and promoted by the administration and ruling class and then accepted by the general public. Its capacity to transform administrative processes and generate time and resource savings, both for the administration and for citizens, is one of the factors that have facilitated its continued development and acceptance. The e-Estonia model rests on three pillars:

- the system where data are crossed between citizens and services, called *X-Road*, which ensures that data are delivered only once to the administration, which is then responsible for delivering them to the different services it offers, i.e. the once-only principle;
- the aforementioned Digital ID, which serves as an individual access key to the services; and
- the *eesti.ee* website, which is the point where the more than 2,600 digital services offered by the country are made available.



https://www.eesti.ee

Within this e-government model, internet voting (i-voting) is one of the flagships, with Estonia being the only country in the world to use this system in all elections (local, national and European) continuously since 2005 (**Solvak**; **Vassil**, 2016).

Characteristics and functioning

The Estonian online voting system displays a series of characteristics that make it interesting for our comparison.

Firstly, as discussed above, the project was developed by the government as part of its digitalisation process and subsequently adopted by the public (**Méndez**, 2010), which sets it apart from other models, such as the one in Switzerland (**Méndez**; **Serdült**, 2017).

Secondly, the success of the online voting system stands in contrast to the failure of other experiments in electronic citizen participation. The studies by **Toots**, **Kalvet** and **Krimmer** (2016) and **Toots** (2019) report up to three attempts in this field that did not achieve the desired success.

The first of these, *TOM* (*Täna Otsustan Mina* – Today I Decide) was a system created in 2001 to facilitate the submission of legislative and policy proposals by citizens that failed due to the small number of participants, the low quality of the proposed ideas, their limited impact and the administration's unwillingness to engage in dialogue, which led to the project's cancellation.

The second, *Osale.ee*, was an iteration of the previous project created in 2004 as part of a policy to encourage citizen involvement in government and involved the creation of an e-participation portal to improve the transparency, openness, quality and legitimacy of decision-making processes (**Hinsberg**, 2007). Although the portal is still in operation, its limited use is due to a number of problems, as identified by **Toots** (2019), ranging from project management failures to user resistance.

The third case that falls along these lines is that of *Rahvakogu* (Citizen assembly), a participatory democracy tool created in 2013 to reverse the trend towards a lack of trust in the political class. The tool was linked to an online platform to allow people to discuss proposals for reforming laws relating to the development of political life and democracy. The participatory process concluded with 15 proposals being submitted to parliament, three of them being accepted and others being partially implemented or transformed into suggestions for developing the role of government. However, according to **Toots** (2019), the process did not succeed in improving levels of trust in institutions as intended.

In contrast to the above, and circling back to the characteristics that make the Estonian model an interesting case for comparison, this paradox between the success of the internet voting model and the failed attempts to promote electronic citizen participation systems has led internet voting to be considered a possible solution. In recent years, the use of i-voting has spread to other levels of government and society (**Krimmer**; **Duenas-Cid**, 2019), for example in participatory budgeting to bring political decision-making to the people (**Krenjova**; **Raudla**, 2018). The use of online voting systems designed specifically for use at the local level sometimes entails technological limitations that may violate data privacy. As a result, and in order to increase the security of online voting at the local level, the electoral office is working to allow the electoral system used throughout the country to be deployed at other levels of government. Access to the population census makes it possible to segment the electorate that may be eligible to vote, facilitating, for example, its use in decision-making processes at the urban level (only those registered in a given city) or segregating the electorate in other ways (e.g. only those in certain age groups).

In search of efficiency

Many of Estonia's e-government development measures carry the idea that they enable more efficient resource management, which saves time and money for both the public administration and citizens, and allows for a move towards a thin administration model (**Kitsing**, 2011). The online voting system falls into this category. While it adds complexity to election administration (**Krivonosova**, 2021), Estonian online voting is much more cost-efficient than the other face-to-face voting methods offered to Estonian citizens (**Krimmer**; **Duenas-Cid**; **Krivonosova**, 2021). Efficiency is also intended to make voting easier for voters; implementing measures to make the voting process more convenient is assumed to increase voter turnout (**Celeste** *et al.*, 2006). Studies in Estonia show interesting results in this regard. Firstly, internet voting has not led to a significant increase in turnout, initially being adopted only by already politically mobilised groups of citizens. However, it has maximised the chances of electoral activation among traditionally excluded groups, as at least a small portion of them has started to vote online (**Vassil**; **Weber**, 2011). Secondly, convenience in voting is habit-forming, and voters who use the internet do not return to other voting systems, gradually expanding the number of people who use this system (**Solvak**; **Vassil**, 2018).

This model, following the logic of other examples of innovation in election technology, clearly seeks efficiency for the administration and assumes a number of positive impacts for citizens (**Goodman**; **Smith**, 2017). Nevertheless, many voices have been raised in Estonia against this form of voting due to security risks (**Springall** *et al.*, 2014), but also in other places where similar systems have been or are used, such as the Netherlands (**Oostveen**, 2010; **Oostveen**; **Van-den-Besselaar**, 2004), Norway (**Gjøsteen**, 2012) and Australia (**Halderman**; **Teague**, 2015). The argument of the risks associated with an online voting system in national elections is often cited as one of the reasons why the system fails to spread to other countries (**Licht** *et al.*, 2021). However, online voting is finding a foothold for expansion at other electoral levels (regional, local), to facilitate voting for certain groups of voters (expatriates) or to support decision-making in participatory processes. Several factors explain this uneven distribution, including the lower security requirements associated with such elections or the less politically charged nature of the results.

3.3. Catalonia

Background

Catalonia stands out for its tradition of participatory processes at the local level and for the decisive support given to them by various public bodies (government, provincial councils, the *Localret* consortium of municipalities, etc.). Since the 1990s, as has been the case in other Spanish autonomous communities such as Andalusia, the Basque Country, Madrid, and Valencia, citizen participation at the local level has been promoted through collective bodies such as city and neighborhood councils, and initiatives for individual participation such as citizen juries or participatory budgeting (**Gomà**; **Font**, 2001). Moreover, at the beginning of the 21st century, there were notable online experiences such as *Democracia.web*, a website run by the *Catalan Parliament* to collect citizens' proposals and amendments to the laws debated in *Parliament*, and *Consensus*, another website with numerous participatory channels including online voting, online mailboxes for communication with the mayor and councillors, forums for citizen debate and the possibility for communities to organise online.

The economic crisis in 2008 and the ensuing budgetary restrictions in local public bodies put an end to many of these initiatives, but they made a strong comeback in the second decade of the 21st century. A key moment was the municipal elections of 2015, which saw the victory in Barcelona of a new left-wing coalition –*Barcelona en Comú*– heir to the *Indignados* or *15 May* protest movement. The main channels of communication and organisation of the *Indignados* were online platforms and social media. Many of its members supported the free software movement and the hacker ethic and advocated direct, technology-mediated democracy without intermediaries. After the election victories of the parties and confluences inherited from the *15 May* movement in cities such as Madrid and Barcelona, many of these activists reached local governments and began to deploy the open-source, free-software participatory platforms *Consul* and *Decidim*.

Expansion

In 2016 *Barcelona City Council* implemented the *Decidim* platform to channel the city's participatory processes. In 2017, the platform was launched in six more municipalities in the Barcelona metropolitan area and in five more municipalities, mainly in the province of Barcelona. In 2018, a new wave of municipalities, many of them small and belonging to other Catalan provinces, deployed *Decidim* with the help of their provincial councils. From 2018 onwards, the Government of Catalonia and the provincial councils of Barcelona and Girona embraced the platform for their participatory processes. As of April 2020, 62 Catalan municipalities use the platform, reaching 53% of the Catalan population, with a total of 289 participatory processes carried out. More than 400 cities, governments, parliaments, associations and cooperatives in 40 countries around the world use the platform, reaching more than 1 million registered citizens worldwide.[4]

Characteristics and functioning

The *Decidim* platform is used to enable all sorts of participatory processes in Catalonia. It is an example of many countries' new government trend towards using open-source, free-software civic technologies for the mass participation of citizens, associations and collectivities in a wide variety of processes (**Aragón** *et al.*, 2017; **Kankanhalli** *et al.*, 2017; **Mergel**, 2015). The platform has mainly been used for participatory processes with a high decision-making impact, such as municipal action plans or participatory budgeting. In fact, many councils have turned to the platform to carry out participatory budgeting for the first time. The result has been a massive influx of citizen proposals that municipalities have been able to group, filter and respond to in a more organised and visible way through the platform, although sometimes they have been overwhelmed by the sheer number of proposals and have failed to give adequate feedback. To a lesser extent, citizen consultations or referendums have been organised and citizen initiatives or petitions have been allowed. The platform's various participatory capabilities can be activated or deactivated at the discretion of each municipality. Many of them have focussed on long, complex and deliberative participatory processes, while petitions, and referendums are not usually activated due to prevailing legal restrictions and political reluctance.

https://decidim.org/es

Another aspect to highlight is the existence of the *Metadecidim* network and the *Decidim* Association, which form a community of local and international users, IT specialists and managers who supervise the need-based updates that should be made to the platform. Many of its members come from the *15 May* protest and the free-software movement, forming a kind of vanguard that defends free and open-source programs and direct and deliberative democracy in the platform's implementation.

The deliberation approach

Among the *Decidim* platform's innovative features are the comments and debate modules, which are similar to chat rooms or social media and are inspired by the structure of *Reddit*, allowing for asynchronous interaction among a large number of participants. The comments module is usually activated to allow discussion for or against proposals put forward by citizens, while in debates, policy-makers answer citizens' questions. The debate module has not actually been activated in most municipalities, but comment sections have been opened in 47% of the municipalities (April 2020) as part of various participatory processes. There have been participatory processes such as the *Barcelona municipal and district action plan* (2016-2019), which drew thousands of comments (18,192) and proposals (10,860). There have also been hundreds of comments in large municipalities such as Terrassa (Municipal action plan 2017) and Badalona (Municipal action plan 2016) and in medium-sized municipalities such as Sant Cugat (participatory budgeting in 2018) (**Borge**; **Balcells**; **Padró-Solanet** *et al.*, 2018). The number of comments in participatory budgeting debates in smaller municipalities such as Calafell and Salou is also noteworthy.

However, while there may be many comments, this does not necessarily equate to dialogue between citizens who express their opinion on proposals presented by other citizens. Analyses of the comments posted about the *Barcelona municipal action plan* show that 89% are merely reactions or responses to the initial proposal and do not lead to conversations that could be described as deliberation (**Aragón** *et al.*, 2017). Conversely, when a response is made against a first comment, this is very likely to trigger long conversations with deliberative characteristics, including rational arguments using data and facts or more personal and emotion-driven arguments (**Aragón** *et al.*, 2017; **Borge**; **Balcells**; **Padró-Solanet**, 2019).

In any case, face-to-face deliberation is often combined with online deliberation. In the usual participatory processes, such as participatory budgeting or municipal action plans, proposals and comments are first collected through the platform and then the proposals are debated and improved in face-to-face workshops and meetings. Finally, in the case of participatory budgeting, proposals are voted on by citizens through the platform. However, the pandemic has disrupted these procedures, with workshops and meetings being held via videoconferences (including their associated chats) hosted on the *Decidim* platform or other platforms. Hybrid formats that combine face-to-face and online methods are also being used for participatory bodies with a deliberative component, such as public hearings or neighbourhood councils. These online or hybrid set-ups are likely to continue in the future, as digital technologies are consolidated in deliberative processes. In addition, one of the most recent technological innovations is the creation of an online voting system which, as the coordinator of *Decidim* himself states in the system presentation, aims to deepen democratic radicalism by creating more possibilities for and instances of citizen voting.[5]

4. Discussion

The aim of this text is to discuss the positions of the Estonian and Catalan experiences in relation to the who and how of decision-making processes. If we take the framework described above (Table 1) and plot the Estonian and Catalan cases, we can see how markedly different their starting point are (Figure 1).

In the Estonian model, as mentioned above, the predominant objectives are the search for efficiency in public administration and the improvement of representative government by facilitating easier and greater citizen participation through online voting. In the Catalan case, the original objective was to enhance citizen participation both quantitatively (number of participants, more spaces for participation) and qualitatively (spaces for deliberation). These initial differences are due to the different driving forces behind the use of technologies for decision-making. In the first case, the model follows a clear top-down approach: the administration proposes, the citizenry disposes. In the second case, the model is institutionalised from the bottom up, starting with the *15 May* movement as a critique of political intermediation and to achieve greater citizen influence in decision-making. However, the initial models have not remained static and have evolved throughout their implementation, leading to a new scenario that we will now outline by analysing the two axes separately.

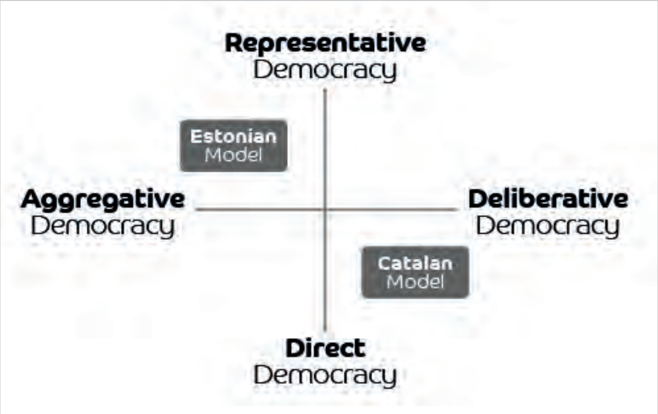


Figure 1. The Estonian and Catalan cases according to the democracy models

4.1. Aggregation – Deliberation: meeting in the middle

The discussion between aggregation and deliberation is defined by the potential of each model to draw a greater number of participants, to raise the number of issues and areas in which citizens can decide, and to foster a higher quality of decision-making among citizens themselves. If we approach the discussion from the aggregation side, internet voting systems, as electoral innovation processes intended to facilitate voting for the electorate (**Gronke** *et al.*, 2008), seek to enable greater turnout. While the first aspect is evident in that internet voting reduces the cost of voting for citizens by making it easier for them, studies are inconclusive with respect to the claimed increase in voter turnout (**Germann**; **Serdült**, 2017). However, the data from the Estonian case do suggest that online voting allows people to access the decision-making process more equally,

> "not only for the already connected and resourceful, but also for the less privileged, who have fewer resources and remain at the periphery of using modern technologies" (**Vassil** *et al.*, 2016, p. 458).

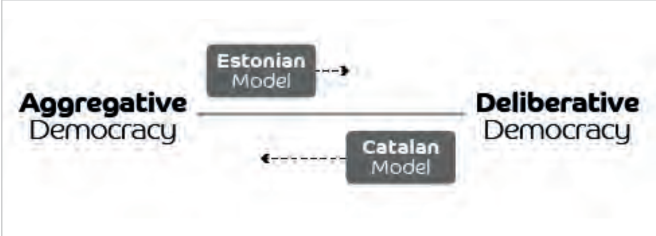


Figure 2. Estonia and Catalonia on the aggregation/deliberation axis

The advantages of the Estonian model thus centre on facilitating voting for the aggregation of the electorate's decisions. In contrast, a recurrent criticism of citizen deliberation and participation systems is their difficulty in involving broad spectrums of the population and in diversifying the socio-economic profile of their participants (**Rottinghaus**; **Escher**, 2020), with the consequent loss of democratic legitimacy of the decisions that are made, insofar as it cannot be ascertained that they represent the majority will of the people.

If we approach it from the perspective of deliberation, the potential of the Catalan model is much greater, insofar as digital platforms for participation have made it possible to collect numerous citizen proposals and increase collaborative initiatives among citizens, as well as encourage debates on proposals and initiatives. The result of this is an increase in the spectrum of perspectives or visions that exist around any given topic of debate and an improvement of the information available to facilitate political decision-making. This potential, by contrast, is not associated with online voting systems which, by definition, only allow for a choice between a number of pre-agreed options (whether two, as in referendums, or more, as in ballots) and do not allow for the emergence or discussion of new ideas or options.

However, as illustrated in Figure 2, both positions are moving towards a middle ground, as both projects are making converging decisions: Estonia's projects to extend participatory budgeting and the use of online voting in such budgeting, as well as the online petition system that includes spaces for comments and debate,[6] are in line with adding deliberation to decision-making. Meanwhile, the incorporation of online voting methods in the Catalan participatory system seeks to broaden the participant base both numerically and inclusively. This convergence at the mid-point is the result of a twofold process. On the one hand, the aggregative proposal is attractive because it simplifies problems and allows citizens direct access to decision-making. Although this simplification is problematic because it means reducing complexity to positions that can be voted on in a plebiscite, the addition of deliberative components allows the approach to be broadened once again. On the other hand, from the deliberative position, incorporating voting systems enhances the already existing capacity for exchanging arguments among informed and motivated citizens by adding the possibility of involving broad sectors of the population. To this end, it is already customary in Catalonia's participatory budgeting processes for the final phase of voting on proposals to be carried out through the platform, in order to try to reach a larger number of citizens than just those who have taken part in deliberating and presenting the proposals. Moreover, in some municipalities such as Barcelona, democratic innovations have been proposed, such as the *Citizen Initiatives Review*, where a final vote open to all citizens would be held on proposals previously discussed in deliberative meetings.

4.2. Representation – Direct democracy: the complexity of changing the system

In relation to the second axis, the debate focusses on the genuine ability to propose a realistic alternative to the well-established representative democracy. The original promise of the *15 May* protests to implement direct democracy through participatory platforms has not been consolidated during *Decidim*'s institutionalisation in Catalonia, as it has proved impossible to move away from the logic of representative democracy. What has certainly been achieved in the Catalan model is the addition of deliberative components and the massive collection of proposals and inputs from citizens, which can improve representatives' decision-making by adding information, perspectives and solutions. On the representative side, the Estonian model is becoming more established, according to voter usage data, and this is facilitating its introduction at other levels of government and other forms of election, which feeds the idea of opening the door to more direct forms of democracy, in which citizens can be consulted beyond electoral contests.

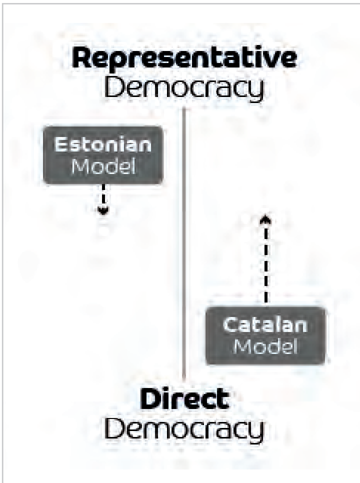


Figure 3. Estonia and Catalonia on the representative/direct axis

Despite the fact that the representative system is consolidated in a significant part of the world, there is no shortage of voices calling attention to the growing distance between those who govern and those who are governed (**Mair**, 2013), and it is precisely this need to create channels of continuous connection with the public and to legitimise political decisions that opens the door to forms of more direct, citizen-led management of democracy. These are technically feasible through digital platforms or online voting systems, but, as we have seen in the Catalan and Estonian cases, they will only be deployed if there is a political will to cede more sovereignty to citizens and propose new paradigms of public governance (**Peña-López**, 2020).

5. Conclusion: Toward a mixed model?

All of the above leads us to move both models to similar positions and lower expectations, in order to form a mixed model that feeds back on accumulated experiences. Thus, both the Estonian model's approach to participatory decision-making processes and Catalonia's adoption of online voting systems fall within the quadrant of representative-aggregative democracy, but approach central positions in relation to deliberation and direct democracy, creating a scenario that is probably more realistic about the possibilities of ICT-based democratic innovation.

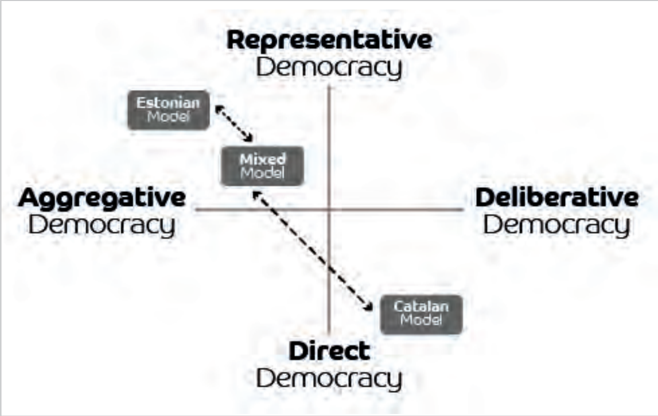


Figure 4. Mixed model

The combined use of online voting and participatory digital platforms can, at the same time, facilitate discussion and decision-making processes. Specifically, it can make it possible to organise a greater number of consultations and elections and to do so more efficiently, increasing the possibility of collecting proposals and inputs from citizens and allowing citizens and groups to self-organise, as well as making participatory processes more visible and transparent. Moreover, it can facilitate the creation of new political habits both for citizens and for the political class and public administration.

This potential mixed model would rest on three basic pillars:

a) It must be able to combine its different objectives without setting them against each other, as it is just as important to encourage citizens' involvement as it is to improve representation. The who and the how, more direct or more deliberative, can be combined depending on the occasion.

b) Technology can be used to simultaneously make advancements on the various fronts outlined in the theoretical section:

- improving representation through participatory platforms (efficiency and legitimacy);
- incorporating more online spaces for deliberation and citizen participation in decision-making; and
- experimenting with relevant instances of direct democracy by combining platforms and e-voting rather than a generalised implementation of the direct model of democracy.

c) It should be technically demanding in order to reduce the potential risks that technology deployment entails. In particular, a security standard must be implemented both in elections and at all levels of decision-making. Neglecting this dimension would have a negative impact on the model as a whole.

The choice is not between representative or direct democracy, or between aggregative or deliberative democracy, but between a minority democracy with certain authoritarian overtones and a mixed model that bases its strength on both citizen participation and the recognition of its fragility. Technology, as we have described, can serve different aims, but its transformative role will only be realised if it bolsters the democratic values of our societies, encourages citizen involvement and helps to improve political management.

Democracy has been defined by the classics as eunomy, that is, balance. Balance between differing interests and preferences, but also balance between the multiple dimensions of democracy itself (representative, direct, aggregative, and deliberative). **Canovan** (1999) reminded us of the need to balance the two souls of democracy. On the one hand, a pragmatic soul that must efficiently solve everyday problems and, on the other, a redemptive soul that proposes values and projects for the future. Through the cases of Estonia and Catalonia we have observed how, from different positions, the multiple dimensions of democracy appear and balance each other out. Although this balance is always unstable and under threat, it is also the basis on which democracy's strength to govern the complexity of human societies rests.

6. Notes

1. See: *https://es.peoplepowered.org/digital-participation-platforms*

2. According to the *V-DEM 2020 index* (p. 32), both Estonia and Spain (and therefore Catalonia) are among the top 10% of countries in the *Liberal democracy index*. Other similar indices, such as the *World electoral freedom index 2020* (**Peña**, 2020), place Spain in a worse position, but always in the high electoral freedom band (pp. 34-35).

3. Check figures close to or above 90% of the population having access to the internet at home and using the internet on a daily basis in both Spain and Estonia (*Eurostat*, 2021).

4. See: *https://decidim-census.digidemlab.org*

5. Live presentation of the online voting systemin streaming.
https://meta.decidim.org/assemblies/eix-comunitat/f/149/meetings/1576?commentId=24098

6. See: *https://petitsioon.ee*

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Third-order election. Spanish political parties' communication on *Facebook* during the 2019 *European Parliament* election campaign

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Abstract

The 2019 *European Parliament* elections were held in Spain in a context of political fragmentation and polarisation, following the recent incorporation of the extreme right into the national parliament. Elections to the *European Parliament* are considered second-order elections and are sometimes used by citizens to cast a punishment vote, favouring new political actors of a contestatary character to gain visibility. Social media networks such as *Facebook* play an important role because they offer these parties a space where they can disseminate their messages on equal terms, beyond media control. This study conducts a content analysis of the posts published on *Facebook* by Spanish national political parties in the month prior to the 2019 local, regional and European elections. The main goal is to analyse the communication strategy used by Spanish political parties in this social media, in order to find out the importance given by the parties to the European elections and whether there are differences in strategy at each level. The results reveal that the European elections are a third-order election for Spanish parties, behind local elections. Most parties practice a dual campaign, in which the topics, goals and emotions posted on *Facebook* vary according to the political level at which they are targeted. This tendency is more pronounced in populist parties and seems to be shaped by the national political context and aimed at matching the concerns of Spaniards at the European level. Despite the incorporation of the extreme right into the Spanish political chessboard, the negative Eurosceptic discourse is only present in the two populist parties and does not affect the rest of the political forces.

Keywords

Political communication; *Facebook*; *European Parliament* election; Populism; Online mobilization; Negative campaigning.

1. Introduction

The 2019 *European Parliament* (*EP*) election took place in Spain in an unusual context of political fragmentation and polarisation. Just a month before, an early general election had been held in the country, the third in four years, something unprecedented in the recent history of Spanish democracy. The foundations of this situation were the political management of the economic crisis as well as the continuing corruption scandals and the territorial problem with Catalonia.

The parliamentary instability began after the December 2015 general election with two new parties entering the Spanish parliament: the populist left-wing *Podemos* (We can) and the liberal *Ciudadanos* (Citizens, *C's*). For decades, the two major parties, the social-democrat *Partido Socialista Obrero Español* (Spanish Socialist Workers' Party, *PSOE*) and the conservative *Partido Popular* (People's Party, *PP*), had alternated in power, either by winning by absolute majority or through pacts with regional parties. The fragmentation and polarisation of the political scene has been accentuated since April 2019 by the entry into Spanish parliament of the far-right populist *Vox*, achieving 10% of the vote in the national election.

The entry of extremist and populist parties into the parliamentary arena diminishes the quality of public debate in a society and endangers democracy. When populist voices gain prominence, their communication strategy is often used by non-populists' politicians and overflows into the general political discourse (**Mazzoleni**; **Bracciale**, 2018). This circumstance is especially dangerous if it ends up influencing the configuration of supranational political bodies such as the European Union (EU) since some voters use European elections to voice their dissatisfaction with the government's performance at the national level (**Weber**, 2007) and the impact of ideology on their electoral choice is bigger (**Sanz**, 2008). In this sense, *EP* elections have traditionally been the perfect platform for small or new political parties to gain visibility (**Skrinis**; **Teperoglou**, 2008). For instance, the 2014 *EP* election was the springboard into the Spanish political arena for *Podemos* which got five members of the *European Parliament* (MEPs) just four months after the party was founded.

Several studies point to the rise of social media as a further element that negatively influences the quality of democracies (**Tucker** *et al*., 2018). These channels are used as a tool to polarise public discourse, undermine institutional legitimacy and destabilise elections (**Bennett**; **Livingston**, 2018; *European Commission*, 2016). Spaniards' news habits have become digital and the main source of news for citizens is online (78%), including social media (**Newman** *et al*., 2021). According to the 2021 *Digital News Report*, *Facebook* is still the most used social media for news consumption in Spain (**Newman** *et al*., 2021). The new political parties were, precisely, the most popular among the users of this platform in the studies carried out during the 2015 (**Gamir-Ríos**; **Cano-Orón**; **Calvo**, 2017), 2016 (**Fenoll**; **Hassler**, 2019) and 2019 Spanish elections (**Gamir-Ríos**; **Fenoll**; **Iranzo-Cabrera**, 2021).

In this context, political communication in *Facebook* could play an important role, equalising the electoral game by offering a channel that allows new political actors to spread their messages bypassing the media and network directly with the citizenry (**Kelm**, 2020). The study of the parties' strategies in this channel is therefore relevant, especially when the 2019 *EP* election campaign in Spain overlapped with local and regional elections. During the previous weeks to the election day, parties had to campaign for local candidates, but also for European ones. Thus, the analysis of this period allows us to observe the strategies followed by the parties in a multi-level electoral competition, in order to determine the relevance they attach to each campaign and to establish the specificities in the populist parties' communication.

2. Campaign strategies

The coincidence of several election campaigns crossing paths in May 2019 makes the political levels addressed in the *Facebook* posts an interesting object of study. *EP* elections in Spain are conceived as second-order elections by citizens as well as by media outlets and political parties (**Berganza**, 2008). Spaniards consider that domestic issues (61%) have more influence than topics related to the EU (12%) when it comes to cast one's vote in *EP* elections (*CIS*, 2019b). This lack of interest in Europe is reflected in a 17% lower turnout than in the national elections.

The secondary role of *EP* elections is also reflected in other European countries (**De-Vreese**, 2009) and some authors have even classified it as third-order elections, to point out its subordinate role in voters (**Reif**, 1997; 1984) and media coverage (**Wilke**; **Leidecker-Sandmann**, 2013), compared to national and regional/local elections. Since there are no studies to identify the importance given by Spanish parties to each political level in campaign, the first research question asks:

Which political level do parties focus on (RQ1)?

In order to analyse the differences in party strategies at each level, it is necessary to focus on the topics that political actors choose to address in the messages they post on *Facebook*. According to the issue ownership approach, some parties are considered by the public as being more able to deal with certain issues (**Walgrave**; **Tresch**; **Lefevere**, 2015). Voters are generally more likely to support a political actor if is perceived to be the most competent on a salient issue (**Bélanger**; **Meguid**, 2008). Thus, political parties and candidates emphasize issues on which voters associate their policy position in order to be consistent with their expectations (**Petrocik**, 1996).

For example, Conservative parties are typically assumed to handle issues such as taxes (**Bélanger**; **Meguid**, 2008; **Petrocik**, 1996), security (**Ansolabehere**; **Iyengar**, 1994) and defence (**Petrocik**, 1996) better than other parties. Right-wing populist parties are particularly associated with taking a stance on issues such as migration, refugees, crimes of immigrants and political radicalism (**Alonso-Muñoz**; **Casero-Ripollés**, 2018; **Taggart**, 2000). In the case of progressive parties, voters relate them to better management of labour (**Ansolabehere**; **Iyengar** 1994), social issues (**Bélanger**; **Meguid**, 2008) and welfare (**Petrocik**, 1996). Left-wing populist parties are more inclined to comment on matters related to corruption and democratic regeneration (**Alonso-Muñoz**; **Casero-Ripollés**, 2018). And we expect Green parties to own environmental issues such as climate change and global warming (**Walgrave** *et al*., 2015).

Although party constituency ownership of an issue tends to be stable, it can occasionally fluctuate and change with existing national conditions (**Petrocik**, 1996) especially when issue owners are electorally successful and ideologically close (**Spoon** *et al*., 2014). In addition, newer and challenging parties have a sharper issue profile than older parties (**Walgrave**;

De-Swert, 2007), especially populists (**Alonso-Muñoz**; **Casero-Ripollés**, 2018), and mainstream parties can adopt the policies of populist parties to draw voters back (**Van-Spanje**, 2018). Thus, we want to find out whether there are any differences regarding parties' issue ownership according to the level their messages are addressed to:

> Are there differences in the topics based on the political level (RQ2)?

As **Magin** *et al*. point out (2017), information, interaction and mobilisation are three key election campaign functions to helping political actors extend their reach to supporters and voters. Information is probably the most basic function of election campaigns, also on *Facebook* (**Magin** *et al*., 2021). Parties can also use *Facebook* to seek interaction with users. Through tools such as commenting, parties can ask users for feedback, which may provide them valuable information for their campaign strategies. In addition to informing and interacting with users, *Facebook* allows parties to mobilise their followers to actively spread their messages. For example, when they ask their supporters to share a message or when they request them to like a post to increase the visibility and reach of the party campaign without any extra costs. Parties can also use direct elements of mobilisation, such as asking users to vote for them in elections. Given that the parties devote lower campaign budget in *EP* elections (**Petithomme**, 2012), *Facebook* campaigning offers them a less expensive mobilisation tool.

However, despite the potential to interact with and mobilise users, *Facebook* is mainly used for top-down communication in election campaigns (**Ceron**, 2017; **Magin** *et al*., 2021). Since there are no studies on focusing on the analysis of this trend at different levels in Spain, the third research question asks:

> Are there differences in the use of *Facebook* to inform, mobilise and interact with users based on the political level (RQ3)?

Other goal of this study is to find out whether the rise of populist parties influences the discourse used by the rest of parties and affects their strategic use of emotions at all three political levels. Populist ideology and emotions are being increasingly adopted by political actors as communicative strategy to drive attention and gain success (**Engesser**; **Fawzi**; **Larsson**, 2017), particularly in social media platforms (**Ernst** *et al*., 2019). This trend also affects *EP* elections campaign. The populist style was present in almost one third of the communication made via *Facebook* by political parties in 2014 (31%) (**Koc-Michalska** *et al*., 2018) and 2019 *EP* election campaigns (27%) (**Lilleker**; **Balaban**, 2021). This is a problem for democracy because the virality associated with social media enhances the visibility of populist discourse through a strong interconnected networks of citizens that directly participate in the dissemination of these ideas (**Gil de Zúñiga** *et al*., 2020).

The use of emotional language and frequent appeals to emotions is one of the most important features associated with populist communication (**Alvares**; **Dahlgren**, 2016). We find positive emotions in the posts of left-wing populist parties as *Podemos* in Spain (**Sampietro**; **Valera**-**Ordaz**, 2015) or right-wing ones as Lega in Italy (**Martella**; **Bracciale**, 2021). However, most of the emotions used by populist parties in social media are negative, especially in the discourse of far-right politicians (**Alonso-Muñoz**; **Casero-Ripollés**, 2018; **Bucy** *et al*., 2020; **Engesser** *et al*., 2017).

Furthermore, Eurosceptic discourse is also an identity element of the rhetoric of European populist parties, regardless of their ideology, presenting a negative discourse on social media against the EU (**Alonso-Muñoz**; **Casero-Ripollés**, 2020). Nevertheless, the type of attack differs depending on ideology: right-wing populists pose a *hard* Euroscepticism, based on the loss of national sovereignty and the exclusion of out-groups, whereas the left-wing populists present a *soft* Euroscepticism, that criticises austerity policies promoted by the *EP* and appeals to the foundational values of EU (**Alonso-Muñoz**; **Casero-Ripollés**, 2020).

In spite of the fact that a large number of studies focus on this issue, there are no cases that analyse if differences exist in the type of emotions used at European or local level. To address this gap in knowledge, this study raises the fourth research question:

> Are there differences in the use of emotions based on the political level (RQ4)?

3. Method

To analyse the parties' strategies on *Facebook* during the 2019 *EP* election campaign, all posts published by the Spanish national political parties that gained representation in the 2019 *EP* election on May the 26th were collected during the month prior. Due to the lack of activity on the *Facebook* page of the left-wing coalition *Unidas Podemos* during the election campaign, the analysis focuses on the posts published by *Podemos*, the party that leads the coalition.

The posts were collected daily using the tool *Facepager* that accesses post attributes via *Facebook*'s API (**Jünger**; **Keyling**, 2019). The process was carried out by a team of researchers from the *Ludwig Maximilians University* Munich led by Dr Jörg Haßler. The collection was manually verified by cross-checking the collected posts with the posts available on the parties' *Facebook* pages for the first and last date of the investigation period. Altogether, 844 *Facebook* posts were stored.

The study follows a quantitative methodology of content analysis of the *Facebook* posts. The coding scheme used was designed by the *CamforS* research group for the simultaneous study of the 2019 *EP* election in 12 EU countries (**Haßler** *et* *al*., 2021). Manual coding comprised all elements of the *Facebook* posts, including visual elements such as pictures and the first minute of videos. To ensure the reliability of the manual coding, a random sample of 50 posts from European parties or parliamentary groups were coded (e.g., *Party of European Socialists* or *European People's Party*). These *Facebook* posts were coded by 29 coders (one to five coders per country) on the basis of the above-described joint coding scheme. The coders were trained in their country. These 50 posts were in English, and no country-specific knowledge was required so that each coder was able to code them. Reliability was calculated using the R-package *Tidycomm* (**Unkel**, 2019). The reliability test showed a common understanding of the categories (all Holsti's $CR \geq 0.7$). The detailed reliability values can be found in the full coding scheme. See *https://bit.ly/CamforS_OSF*

In order to answer RQ1 and find out on which political level parties focus on, we coded the political level that the topics of the post refer to or are mainly related to: local/regional level, national level, EU level and other levels (e.g., bilateral relations between countries, global).

To find out what topics were addressed by the parties at each political level (RQ2), the content of the post was classified according to whether it is related to three overarching subject areas: *polity* contains institutional and normative aspects of politics such as the state of democracy or the territorial design; *politics* includes processual aspects of politics such as the electoral campaign, results from polls or provided information about the election day; and *policy* are political issues that politics is dealing with and that are subjects of political debates. This includes the subcategories economy and finance, labour and social issues, criminality/crime rate in general, political radicalism/religious fanaticism, immigration policy in general (including distribution of refugees within the EU member states, measures against refugees in Europe, crimes of asylum seekers, refugees or other immigrants), domestic issues as corruption, and environmental and energy policy. These topics were the main concerns of Spaniards in the spring of 2019 (*CIS*, 2019; *European Commission*, 2019).

The categories *information elements*, *call for interaction* and *call for mobilisation* were operationalised to measure the main function of the post:

1) Information elements differentiated subcategories for *information on party*, *information on party's candidates* and *information on party's policy*.

2) Call for interaction differentiated between online and offline interaction. *Calls for interaction online* were coded when posts contained a call to comment on a post, a call to take a vote by using *Facebook* reactions or a call to address a political actor. *Calls for interaction offline* included calls to build new or strengthen already-existing local political relationships and calls to address a political actor personally, by letter or over the phone.

3) Calls for mobilisation were also subdivided into online and offline. *Calls for online mobilisation* included appeals such as calls to share a post or calls to sign an online petition or to participate in an online survey. On the other hand, *calls for offline mobilisation* were coded when posts contained appeals such as calls to go to vote, calls to door-to-door canvassing or calls to join a party.

Finally, we analysed the content of the posts to determine whether there are differences in the use of emotions according to the political sphere to which the post is addressed (RQ4). Based on previous research on emotions, social media and political communication, we coded the presence of positive and negative emotions as dichotomous variables (**Alvares**; **Dahlgren**, 2016; **Bene**, 2017; **Hameleers** *et al*., 2016; **Engesser**; **Fawzi**; **Larsson**, 2017; **Martella**; **Bracciale**, 2021; **Sampietro**; **Valera-Ordaz**, 2015). Following **Ernst** *et al*. (2019), a post is positive if it uses emotional language by expressing happiness, hope, pride or trust. And a post is negative if it contains anger, uneasiness, sadness or fear. Subsequently, the emotion of the posts was recoded as neutral (no emotion), only positive, only negative and both emotions.

4. Results

The results of the study reveal a preference of Spanish political parties for the national (44%) and local/regional (37%) levels, well above the European level, which barely reaches a sixth of the published posts (16.5%). However, if we look at Table 1, we observe statistically significant discrepancies between the campaign strategies of the different parties [χ^2 (12, N = 844) = 98.11, p < .001].

In the month leading up to the European and local elections, the two centre-right parties (*C's* and *PP*) maintained a struggle to consolidate the conservative voter leadership in city and regional governments. Both parties focused their campaign mainly on the local level: the conservative *PP* devoted 56.5% of its publications and the liberal *C's* 50%. In contrast, *Vox* is the party that gave the least attention to the local level, making evident the newcomer's lack of structure at this level. The far-right party focused mainly on the national level (57.9%), emphasising the party's commitment to putting Spain and national issues at the forefront.

> The 2019 *EP* election in Spain was considered a third-order election in the shadow of the municipal and regional elections

Table 1. Political levels per party

			Party					Total
			Podemos	***PSOE***	***C's***	***PP***	***Vox***	
Level	Local	Count	49	76	58	104	23	310
		% within party	26%**	31%**	50%*	56,5%*	20%**	37%
	National	Count	92	126	34	57	66	375
		% within party	49%	52%*	29%**	31%**	58%*	44%
	EU	Count	45	38	23	12	21	139
		% within party	24%*	16%	19,7%	6,5%**	18%	16,5%
	Other	Count	1	2	2	11	4	20
		% within party	0,5%	0,8%	2%	6%**	3,5%	2%
Total % within party		Count	187	242	117	184	114	844
		100%	100%	100%	100%	100%	100%	

Notes: 4 cells (20%) have expected count less than 5. The minimum expected count is 2.70. The parties are ordered from left wing to right wing regarding their ideological stance.
* Adjusted residuals greater than + 2.
** Adjusted residuals lower than - 2.

Also significant is the high percentage of posts that the socialist *PSOE* dedicated to national politics (52%). This strategy seems to be aimed at amortising the victory in the national elections of April the 26th and extending this success to the local and European elections. *Podemos* was the only party to use a significantly more European strategy. The left-wing populist party addressed 24% of its messages to the European level. The tendency to consider the *EP* as a third-order election is also present in this party although to a lesser extent. It is also significant the scarce attention that the *PP* devoted to the *EP* election, only 6.5% of its posts.

References to other political levels are practically marginal in all parties except the *PP* (6%). This party stands out for including a significant number of references to Venezuela in its political communication. Although the situation in this country has nothing to do with the local or European elections in Spain, the conservative parties use it to attack *Podemos* for its alleged links to the Bolivarian government (**López-García**, 2016).

For a better overview of the campaign strategy used at the European level, in the rest of the study only two levels are differentiated: EU and non-EU. The analysis of the issues used by the parties at each level makes it possible to establish whether they followed the same strategy or whether they used a differentiated approach for the European level.

Table 2 and 3 show how strongly the posts of the Spanish parties focused in each level on the three dimensions of politics: politics, policy and polity. In both campaigns, most parties organised their communication strategy around politics-related issues and used *Facebook* mainly to promote themselves. This trend is stronger in the two left-wing parties, who were keen to share information about campaigning and election contest and published a remarkable number of posts using a game frame approach.

Programmatic campaigning related to specific policy issues were relegated to second place at both levels. However, if we focus on publications at the European level, although fewer in number, they reveal a more policy-focused campaign.

Table 2. Percentage of topics at EU level by party (% within party)

	Podemos	***PSOE***	***C's***	***PP***	***Vox***	**Total**
Politics	76	87*	56.5	58	52**	70.5
Game frame	36	53*	4**	17	29	32
Policy total	64	58	43.5	67	76	61
Labour and social	47	53*	22	50	5**	38
Environmental	33*	18	9	25	5	20
Immigration in general	24	10.5	4	17	33*	18
Economy and finance	20	3**	4	42*	24	15
Radicalism/fanaticism	16	0**	9	42*	9.5	11.5
Criminality in general	0	0	0	8*	5	1
Crimes of immigrants	0	0	0	0	9.5*	1
Polity	9	5	4	0	52*	13

Notes: N = 139 posts. More than one topic could be coded per post. The parties are ordered from left wing to right wing regarding their ideological stance.
* Adjusted residuals greater than + 2.
** Adjusted residuals lower than - 2.

Looking at the general concerns of Spaniards in the spring of 2019 (*European Commission*, 2019), the most important issues facing the EU were immigration (37%), economic situation (23%), climate change (21%), unemployment (18%) and terrorism (15%).

However, the Spanish parties' 2019 *EP* election campaign at European level focused mainly on labour, social and environment issues, leaving topics such as immigration or economy on the back burner.

The parties on the extremes turned more frequently to policy issues, while the incumbent party (*PSOE*) stood out for the opposite, especially at the local level, focusing almost exclusively on the procedural aspects of politics and avoiding pronouncements on controversial polity or domestic policy issues. *Podemos* and *Vox* were keen to promote the topics mainly 'owned' by them in line with the issue ownership approach. *Podemos* led the use of environmental issues and was the only party that significantly addressed this topic at local level. Likewise, albeit in a more moderate way than in previous elections, *Podemos* led the fight against corruption, a recurring theme in the discourse of the new parties. At the other ideological extreme of the Spanish political chessboard, *Vox* was particularly keen to provide information on immigration, being the only party to link immigration with crime.

The main parties also dealt mainly with the issues that are supposed to own. The ruling party led the use of labour and social issues. On the other hand, the main conservative party (*PP*) monopolised economic issues (at both levels) and led references to criminality (at EU level). As for *C's*, although most of his publications on policy were focused on labour and social issues, it is striking that it is the only party that did not stand out in the 'ownership' of any issue, possibly as a strategy to emphasise the centrist nature of the party.

When looking at the concerns of Spaniards at national level during the 2019 *EP* election campaign (*European Commission*, 2019), we found some differences. The most important issues facing Spain were unemployment (51%), pensions (22%), economic situation (21%), immigration (16%) and health and Social Security (15%). These issues are in line with Spanish national surveys (*CIS*, 2019), which also reflect a strong concern for unemployment (65%) and the economy (26%) as well as usual issues on the agenda of the new parties such as problems of politicians in general (28%), corruption (26%) and the independence of Catalonia (11%).

The *Facebook* election campaign of the political parties at local level reflected these concerns (Table 3), also prioritising labour, social and economic issues. It is worth noting that the immigration debate occupied a residual space on the agenda of the majority of parties. Only *Vox* incorporated this issue in its local campaign, although to a lesser extent than it did at the European level.

Table 3. Percentage of topics at no EU level by party

	Podemos	***PSOE***	***C's***	***PP***	***Vox***	**Total**
Politics	75*	72.5*	45**	62	54**	64
Game frame	41.5*	43*	11**	23**	21.5**	31
Policy total	59*	30**	57	55	63*	50
Labour and social	49*	26	15**	33	9**	28.5
Economy and finance	15.5	1**	16	20*	11	12
Radicalism/fanaticism	3	0.5**	11*	6	13*	5
Environmental	15.5*	2.5	1	1**	1	4
Corruption	6*	2.5	2	0.6	2	3
Immigration in general	0.7	0.5	0	0	12*	2
Crimes of immigrants	0	0	0	0	7.5*	1
Criminality in general	0	0	0	0	3*	0.4
Polity	6	3**	7	4**	32*	8

Notes: *N* = 705 posts. More than one topic could be coded per post. The parties are ordered from left wing to right wing regarding their ideological stance.
* Adjusted residuals greater than + 2.
** Adjusted residuals lower than - 2.

When examining the polity-related issues addressed in the posts, it can be stated that the institutional and normative aspects of politics played a neglectable role and were hardly present in the *Facebook* election campaign of all parties except *Vox*. The subject of politics was one of the main axes of the far-right populist party's communication at both levels, with criticism of the constitutional political structures and the normative foundation of the political. Nevertheless, this strategy was accentuated at the European level, where polity issues were present in every second post, while at the local level they accounted for a third of *Vox*'s publications.

Tables 4 and 5 show how strongly the Spanish parties focus in each level on the three main functions of campaigning: information, interaction and mobilisation. At both levels, there is a clear tendency to use *Facebook* primarily as a top-down channel for information dissemination. A closer examination of the nature of the information at each level shows that in the publications devoted to reporting on the European campaign there was a higher percentage of posts focusing on information about the party's own policies (44%), such as parties' manifesto or government program. Information about the own party (39%) or its candidates (17%) took a secondary position in *Facebook* posts at this level. By contrast, in the communication strategy followed at the local elections, information about the party occupied a relevant position (53%). Although the percentage of posts with information on party representatives was low on both levels, the party's own politicians had slightly more visibility in the local and regional election campaign (20% of all posts) than the candidates campaigning for the *EP* election (17%).

Nevertheless, beyond this general trend, we can observe differentiated strategies depending on ideology. The percentage of posts with information about the own party was significantly higher for left-wing parties, especially the *PSOE*. Moreover, the incumbent *PSOE* followed a different strategy from the other parties in promoting its candidates. At the local level, it led in publications about its politicians, while in the European campaign it was the party that publicised the least its candidate, who had a marginal presence in the percentage of the *PSOE*'s posts (5%).

There are also major ideological differences in the parties' strategies in reporting their electoral programmes at both levels. In the European campaign, policy proposals were more abundant in the more conservative and extreme parties, while parties closer to the centre offered information with a lower programmatic profile. In contrast, the local election campaign on *Facebook* was characterised by a significant decrease in posts with information about the electoral manifesto for all parties, except for *C's*, which led in policy information.

Table 4. Percentage of posts containing information, interaction and mobilisation elements at EU level

	Podemos	*PSOE*	*C's*	*PP*	*Vox*	Total
Information total	100	100	100	100	100	100
On party	38	58*	26	25	29	39
On candidates	22	5**	26	25	14	17
On party policy	44	40	35	50	57	44
Interaction total	0	0	4*	0	0	0.7
Online interaction	0	0	4*	0	0	0.7
Offline interaction	0	0	0	0	0	0
Mobilisation total	60	78*	30**	25**	38	54
Online mobilisation	24*	13	9	0	5	14
Offline mobilisation	44	76*	26**	25	33	47

Note: *N* = 139 posts. More than one item could be coded. The parties are ordered from left wing to right wing regarding their ideological stance.
* Adjusted residuals greater than + 2.
** Adjusted residuals lower than - 2.

Appeals for interaction remained outside the campaign strategy of most parties, except for the new parties *Podemos* and *C's*, which used them, albeit marginally. It is noteworthy that there were no calls for offline interaction at all. Concerning calls for mobilisation, more use was detected at the European level (54% of all posts), perhaps to compensate for the lack of resources usually allocated to this campaign. Spanish parties focused at both levels much more strongly on offline than online mobilisation (see Table 4 and 5). The mobilisation strategy was significantly more present in the discourse of the governing party, which leads at both levels calls for offline mobilisation (e.g., go to vote). At the European level, *Podemos* was the only party that most strongly encouraged calls for online mobilisation (24% of its posts), especially to engage users to share a post, to follow an election event live on *Facebook* or to read an online news item about its candidate.

Table 5. Percentage of posts containing information, interaction and mobilisation elements at no EU level

	Podemos	*PSOE*	*C's*	*PP*	*Vox*	Total
Information total	100	96**	99	99	100	98
On party	62*	59*	37**	46**	55	53
On candidates	13**	27*	12**	23	20	20
On party policy	24	9**	36*	27	29	23
Interaction total	2*	0	0	0	0	0.4
Online interaction	2*	0	0	0	0	0.4
Offline interaction	0	0	0	0	0	0
Mobilisation total	39	60*	33	34**	25**	41
Online mobilisation	9	10	3**	10	6.5	8.5
Offline mobilisation	34.5	57*	30	27**	24**	37

Note: *N* = 705 posts. More than one item could be coded. The parties are ordered from left wing to right wing regarding their ideological stance.
* Adjusted residuals greater than + 2.
** Adjusted residuals lower than - 2.

To verify whether there are differences at the European level in the use of emotions during the election campaign on *Facebook*, we coded every post for the presence of positive and negative sentiments (Tables 6 and 7). In general, the right-wing bloc, led by the *PP*, focused its negative campaign on the ruling party (*PSOE*). They also targeted their attacks against those they denounce as the *PSOE*'s secret allies: *Podemos* and the nationalist and pro-independence parties. Within the right-wing bloc, the conservative *PP* used negative emotions towards the liberal *C's* and the far-right populist party *Vox*. While *C's* avoided confrontation with the other right-wing parties and aimed its attack almost exclusively at the Catalan separatist and the left-wing bloc.

> The far-right party focused mainly on the national level, emphasising the party's commitment to putting Spain and national issues at the forefront

A different use of negative emotions can also be observed in the left-wing parties. The *PSOE* eschewed direct confrontation with *Podemos* and concentrated its negative emotions on denouncing the whole right-wing bloc, especially *Vox* and the major conservative party (*PP*). These attacks appeal to the fear that the extreme right could come to govern through pacts with the other conservative parties. *Podemos* focused its negativity on the main conservative party (*PP*), leaving attacks on *C's* and *PSOE* in the background and with hardly any negative mentions to *Vox*. Thus, it seems that only the new parties already established in the institutions (*Podemos* and *C's*) were keen to ignore the newcomer *Vox*.

Table 6. Percentage of posts containing emotions at EU level

	Podemos	***PSOE***	***C's***	***PP***	***Vox***	**Total**
Neutral	38*	18	35	0**	14	25
Only positive	22**	63*	39	42	19	37
Only negative	13	0**	0	8	38*	11
Both emotions	27	18	26	50*	29	27

Note: *N* = 139 posts. Parties are ordered from left wing to right wing regarding their ideological stance.
* Adjusted residuals greater than + 2.
** Adjusted residuals lower than - 2.

The findings reveal a more emotionally neutral European campaign, while at the local level the use of emotions is increasing. Taking a closer look at no EU level, Table 7 shows an ideological cleavage in the use of emotions. Left-wing parties published more neutral and positive posts. While right-wing parties used more negative emotions in their messages.

Table 7. Percentage of posts containing emotions at no EU level

	Podemos	***PSOE***	***C's***	***PP***	***Vox***	**Total**
Neutral	28*	20	21	7**	10**	17
Only positive	37	61*	27**	44	28**	43
Only negative	15.5	1**	16	8	35.5*	12
Both emotions	19**	18**	36*	41*	27	27

Note: *N* = 705 posts. Parties are ordered from left wing to right wing regarding their ideological stance.
* Adjusted residuals greater than + 2.
** Adjusted residuals lower than - 2.

A party-by-party analysis shows that *Podemos* was the most neutral campaigner at both levels, albeit more pronounced at the European level (38% of its posts), maintaining the same level of neutrality as in the 2014 *EP* election campaign (**Sampietro**; **Valera-Ordaz**, 2015). However, unlike in previous elections at national (**Fenoll**; **Cano-Orón**, 2019; **Fenoll**; **Hassler**, 2019) or European level (**Sampietro**; **Valera-Ordaz**, 2015), *Podemos* was no longer so strongly committed to positive emotions, although they were still the most widely used.

The *PSOE*'s strategy at both levels was similar, standing out for its extensive use of positive emotions. Examples of this positive campaign are the incorporation of a heart in the party logo (replacing the traditional rose) or the 2019 *EP* election slogan *#LaEuropaQueQuieres* (The Europe You Want/Love), with a campaign full of positive emotions towards the EU. The ruling party's positive campaign seems to be aimed at counteracting the negative campaigning of the three right-wing opposition parties.

The struggle for right-wing hegemony, following the arrival of *Vox*, reveals differentiated individual strategies at each level. *C's* offered a more moderate profile at the European level, with a high percentage of posts with positive (towards the EU) and neutral content. By contrast, in the local arena, *C's* was the party that use the least positive emotions and the second party, after *Vox*, that published the most negative emotions. A very different strategy to previous elections, where *C's* had been the party with the lowest number of negative emotions (**Fenoll**; **Cano-Orón**,

> The parties on the extremes turned more frequently to policy issues, while the incumbent party (*PSOE*) stood out for the opposite

2019). The targets of these negative emotions were the ruling socialist party, its potential ally in government (*Podemos*) and the Catalan separatist.

The *PP*, however, implements the same strategy. The Conservative party exceled in publishing a significantly higher percentage of posts with emotional content at both levels. Positive sentiments were mainly directed towards the party itself and also towards the EU, while negative emotions focused on the ruling party (*PSOE*), demonising its alleged links with terrorists and separatist parties.

The extreme right-wing populist party *Vox* is the only party that used more negative emotions than positive ones. This strategy is present at both levels, with almost two out of every three posts containing negative emotions. At local level, *Vox*'s attacks were focused on all parties, including the centre-right wing parties. However, the socialist party and the nationalist and pro-independence parties were the most targeted by the negative campaign.

5. Discussion and conclusions

The simultaneous elections held in Spain on 28th May 2019 at local, regional and European level offer an ideal scenario to see what differences exist in the political communication of the parties. The results obtained allow us to detect several original contributions regarding Spanish parties' strategies at each level.

In the first place, our findings clearly indicate that the 2019 *EP* election in Spain was considered a third-order election in the shadow of the municipal and regional elections held on the same day. This trend is less pronounced in populist parties, partly because they are structurally less established at the local level and because of the benefits that good election results in Europe bring to small parties, increasing their visibility and media impact (**Fenoll**; **Rodríguez-Ballesteros**, 2016). But especially because their core campaign issues are related to the main concerns at the European level. This subordinate role of the *EP* election –present in the priorities of political parties– has also been noted in voter attitudes (**Reif**, 1997, 1984) and media coverage (**Wilke**; **Leidecker-Sandmann**, 2013), and highlights the need to implement changes at the European level in order to achieve greater involvement of society in EU politics.

The study also provides important insights into the communication strategies used by political parties in a multilevel electoral arena. The findings reveal to a large extent that the focus of the *Facebook* campaign was in line with the issue ownership approach (**Petrocik**, 1996), especially at local level. However, all parties seem to adapt to citizens' concerns at the European level, highlighting issues related to the environment or immigration, which rank higher in polls at this level. The two populist parties were, therefore, in the lead on these issues at both levels: *Podemos* on the environment and *Vox* on the immigration. In this sense, the main conservative party incorporates the immigration issue in a substantial way at the European level. Thus, the impact of the electoral lift-off of the radical populist right in Spain can also be seen on the discourse on immigration of the opposition parties, as has already happened in other European countries (**Van-Spanje**, 2018, 2010).

Despite the fact that corruption still ranked high in Spaniards concerns in spring 2019 (*CIS*, 2019), the new parties no longer used the subject of democratic regeneration with the same intensity as they did in the past (**Valera-Ordaz** *et al*., 2017), when they were still extra-parliamentary parties. *Podemos* and *C's* reluctance to keep denouncing corruption may be motivated by the pragmatism of the new parties that have already entered the institutions. The contingency of reaching a pact after the elections might favoured a less belligerent attitude towards parties on the same ideological wing.

The results also point to some common trends. In general, parties prioritised politics and policy over polity, in line with a common pattern in election campaigns (**Magin**, 2012). The use of these three elements was, however, higher at EU level, possibly because of the need to concentrate more electoral information in a smaller number of posts. The thematic approach was significantly more intense in the two populist parties as previously detected in literature (**Alonso-Muñoz**; **Casero-Ripollés**, 2018) especially in the newest (**Walgrave**; **De-Swert**, 2007).

Regarding the strategies to inform, mobilise and interact with users, there was a general tendency to use *Facebook* primarily as a top-down channel for information dissemination. In the *EP* election campaign, the parties focused their information especially on programmatic aspects, while at the local level the parties themselves were the protagonists. Left-wing parties most frequently used *Facebook* to promote their campaign events (appearances in the media and in rallies) and to focus on 'horserace' aspects of politics, with information on polls and election results. This can be explained by the context of the period analysed, which started just after the general election and had against the background of the future system of alliances between both parties. Furthermore, *PSOE* could be interested in extending the bandwagon effect to local and European elections by amortising their favourable results in the recent national election. This high number of posts focused on processual aspects of politics is directly related to the proliferation in the number of electoral events, during the last elections held in Spain. In the 2019 election campaign, for example, electoral events were less crowded than in the past, but more frequent and numerous, in order to provide constant material to feed social media content (**Peris-Blanes** *et al*., 2020).

"The impact of the electoral lift-off of the radical populist right in Spain can also be seen on the discourse on immigration of the opposition parties"

Regarding mobilisation, there was greater use of this tool at the European level, perhaps to compensate for the lack of resources usually allocated to this campaign. Spanish parties use *Facebook* at both levels as a digital tool to encourage participation mainly in traditional offline campaign events. The socialist party published significantly more posts with such calls for mobilisation, repeating the same strategy as in the 2016 national election, when it was in opposition (**Fenoll**; **Hassler**, 2019). In contrast to other European countries, where the far-right populists lead the calls for online mobilisation on *Facebook* (**Fenoll**; **Hassler**, 2019), *Vox* stood out for the scarce use of this tool. Parties definitely do not use the interaction possibilities offered by *Facebook* at all. A priori, obtaining information through these tools would allow political actors to gain in-depth knowledge of users' opinions on certain issues. Nonetheless, parties would have to devote large amounts of resources to this task, moderating user participation and channelling the information received. The lack of interest showed by all parties in both election campaigns on *Facebook* reveals the under-resourcing of these teams.

There was a general tendency to use *Facebook* primarily as a top-down channel for information dissemination

The political situation in Spain during the election campaign influenced the parties' emotional strategy at both levels. The use of negative emotions was mainly projected towards the opposing bloc, although the battle for hegemony of the right-wing bloc was reflected in a greater number of attacks within the bloc by the *PP* and *Vox*. *C's* maintained a differentiated strategy and focused negative emotions exclusively on Catalan separatists and left-wing parties. Within the left-wing bloc, there is a less hostile attitude towards each other, especially from the incumbent party (*PSOE*), which excludes *Podemos*, its former ally in government, from its attacks. This strategy of mutual non-aggression was also followed by *Podemos* at the local level with a less aggressive attitude towards the *PSOE* than the other parties, while at the European level *Podemos* was just as belligerent towards the socialists as the right-wing parties.

In terms of the recipient of the emotions, there are two well-defined blocks. The more moderate parties (*PSOE*, *PP* and *C's*) used a positive campaign to refer to the EU and its institutions, but both populist parties (*Podemos* and *Vox*) criticised the EU with negative sentiments. These results are in line with other studies on social media, which point to the use of negative Eurosceptic discourse in European populist parties, regardless of their ideology (**Alonso-Muñoz**; **Casero-Ripollés**, 2020).

In summary, the results of this study offer a first outline of the different communication strategies in a multilevel campaign held in Spain in a polarised and fragmented political scenario. Future studies should go further in this direction by incorporating other multiple electoral events in other EU countries, in order to determine whether the conclusions obtained in Spain can be generalised to the European level or whether they respond to a national conjuncture.

The more moderate parties (*PSOE*, *PP* and *C's*) used a positive campaign to refer to the EU and its institutions, but both populist parties (*Podemos* and *Vox*) criticised the EU with negative sentiments

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Astroturfing as a strategy for manipulating public opinion on *Twitter* during the pandemic in Spain

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Abstract

This work aims to establish whether astroturfing was used during the Covid-19 pandemic to manipulate Spanish public opinion through *Twitter*. This study analyzes tweets published in Spanish and geolocated in the Philippines, and its first objective is to determine the existence of an organized network that directs its messages mainly towards Spain. To determine the non-existence of a random network, a preliminary collection of 1,496,596 tweets was carried out. After determining its 14 main clusters, 280 users with a medium-low profile of participation and micro- and nano-influencer traits were randomly selected and followed for 103 days, for a total of 309,947 tweets. Network science, text mining, sentiment and emotion, and bot probability analyses were performed using *Gephi* and *R*. Their network structure suggests an ultra-small-world phenomenon, which would determine the existence of a possible organized network that tries not to be easily identifiable. The data analyzed confirm a digital communication scenario in which astroturfing is used as a strategy aimed at manipulating public opinion through non-influencers (cybertroops). These users create and disseminate content with proximity and closeness to different groups of public opinion, mixing topics of general interest with disinformation or polarized content.

Keywords

Astroturfing; Disinformation; Hoaxes; Pandemics; Covid-19; Manipulation; Public opinion; Small-world; *Thunderclap*; Spain; Philippines; Nanoinfluencers; Geolocation.

1. Introduction

In recent years, the debate around hoaxes and disinformation has become increasingly important in academic and journalistic spheres (**Blanco-Alfonso**; **García-Galera**; **Tejedor-Calvo**, 2019), where the word "*infodemic*" has emerged to describe an excess of information that reflects the increasing power of social networks (**Ortega**, 2020). The digital stage has become a particularly important space for capturing and influencing public opinion in our society (**Campos-Domínguez**; **Calvo**, 2017). Our environments are increasingly characterized by a hybrid communicative ecosystem, in which traditional and digital media coexist in the outreach efforts of political and social actors (**López-García**, 2016). This scenario favors the promotion of a culture of disinformation, with rampant promotion of false content intentionally created to condition or manipulate public opinion around certain issues (**Wardle**; **Derakhshan**, 2017). This culture is better represented –from our point of view as well as that of international organizations such as the *European Commission* (2018)– through the use of the term *disinformation*, and not similar terms such as *misinformation*. The former focuses on the dissemination of deliberately misleading content, that is, content with malicious intent, confusing, inaccurate and with elements of falsehood; while the latter is not necessarily intentional, and refers to a dissemination of content based on rumors and confusing, inaccurate, unverified or false information (**Jack,** 2017; **Torabi**; **Taboada**, 2019; **Hrčková** *et al.*, 2019).

> Attention should be placed on the type of strategy used to disseminate this type of content through social networks, aided by websites created to make the arguments appear more solid and real

As **Guess**, **Nyhan** and **Reifler** (2018) rightly point out, when analyzing the use of disinformation, attention should be placed on the type of strategy used to disseminate this type of content through social networks, aided by websites created to make the arguments appear more solid and real (**Zhao** *et al.*, 2020). This content is disseminated and amplified by users (foot-soldiers) who do not fit the profile of an influencer (high follower-count and activity). These non-influencer users appear not to be organized or related to each other, but they act in a coordinated manner, mostly avoiding suspicion due to their "apparent anonymity" in contrast to the activity of clearly identifiable and relevant political and social actors. This approach has come to be known as astroturfing, a strategy for promoting content that has been used in politics, public relations and advertising for decades (**Sorensen**; **Andrews**; **Drennan**, 2017), and which, with the rise of social media, has become increasingly relevant for the dissemination of disinformation (**Elmas** *et al.*, 2021). Thus, astroturfing is a campaign to spread information and ideas, centered on an attempt to appear founded on spontaneity and freedom of expression but organized and coordinated (**Lits**, 2020). This phenomenon would tie in with **Granovetter**'s (1973) sociological theory of the strength of weak ties, where distant contacts would be highly influential in providing new ideas to groups of people.

Based on the above, social networks have seen the rise of tactics such as the so-called *Thunderclap* technique, where micro- and nano-influencers (**Wissman**, 2018)– users with 100,000 and 10,000 followers or less, respectively, as classified by **Ong, Tapsell** and **Curato** (2019)– considered normal and identifiable by the rest of the population as their peers, "introduce" certain messages into the networks to which they belong (**Sorensen**; **Andrews**; **Drennan**, 2017). Thunderclap, derived to the astroturfing term for social networks (**Mahbub** *et al.*, 2019), comes from the marketing world as a form of information dissemination based on a seemingly unconnected crowd (**Bradshaw; Howard**, 2018), following the name and approach of the British and American bombing operation over Germany at the end of World War II (**Davis**, 1991).

Under this technique (thunderclap) and this disinformation strategy (astroturfing), the leading "alpha" users do not follow the client's account (the influencer) to avoid being detected. They also use a team of "beta" users, who may or may not be bots, and run several different accounts at once. These "beta" users are in charge of: (1) engaging with the interactions generated by the tweets in question, and (2) openly sending the disinformation posted by "alpha" users to influencers (e.g. journalists and media), so as to generate "trending topics". The campaign is implemented in small world and ultra-small-world networks. Small-world networks are highly dense small groups in which users in social networks tend to participate, and which may have strong interconnections (**Milgram**, 1967; **Himelboim** *et al.*, 2017); while ultra-small-world networks have a shorter distance between nodes (**Barabasi**, 2016; **Menczer**; **Fortunato**; **Davis**, 2020).

Authors such as **Ong** and **Cabañes** (2019), **Ong, Tapsell** and **Curato** (2019), **Bradshaw**, **Bailey** and **Howard** (2021) have geographically framed these campaigns in countries such as the Philippines, which have a "high capacity" for "cyber-troops" for the application of this type of strategy for business or political purposes. These organized groups have been called "troll farms", as detected in international media such as the *Los Angeles Times*, *The Washington Post*, and the *BBC* (**Bengali**; **Halper**, 2019; **Mahtani**; **Cabato**, 2019; *BBC*, 2020) and were used to disseminate disinformation during the Covid-19 pandemic (**Collins**; **Zadrozny**, 2020).

With the onset of the Covid-19 pandemic and the global implementation of lockdowns and policies restricting citizen mobility, the dissemination of disinformation has increased (**Aleixandre-Benavent**; **Castelló-Cogollos**; **Valderrama-Zurián**, 2020; **García-Marín**, 2020) as the media engage in a battle to perpetuate the controversy and keep ratings at a high level (**Cebrián**; **Balsa-Barreiro**, 2021). Citizens have been influenced by the overabundance of information generated during this period, as well as by the deliberate dissemination of false information (**Salaverría** *et al.*, 2020; **Collins**; **Zadrozny**, 2020). This issue has been defined by entities such as the *World Health Organization* (2020) as an "infodemic" and has made it more difficult for citizens to apply enough resources, mechanisms and skills to identify truthful content. This phenomenon amplifies effects such as confirmation bias (**Wason**, 1960), defined as the favouring of information that confirms or supports previously held beliefs or values (**Jerit**; **Zhao**, 2020).

The study about astroturfing has defined its phases well, such as co-tweeting (different tweets with a similar message in a short time from different accounts with no apparent connection) and co-retweeting (flood of messages a few hours later), in the work of **Keller** *et al.* (2020) in the South Korean elections. But also explain its tactics. The phenomenon of their global expansion in the international political world was analysed (**Schoch** *et al.*, 2022) and the case of how Russian agencies used these techniques in the 2016 US elections (**Diresta** *et al.*, 2019). In the Spanish language, studies on this issue are very scarce and mainly conceptual (**García-Orosa**, 2021).

The scenario described so far –information overload and proliferation of disinformation– has favored the rise of a socio-communicative environment defined by panic, confusion and polarization about the health crisis (**Adhanom-Ghebreyesus**; **Ng**, 2020). In this environment, being well-informed has become a difficult task for citizens in general, especially when they may prefer to avoid confronting the crisis as a coping mechanism (**Aleixandre-Benavent**; **Castelló-Cogollos**; **Valderrama-Zurián**, 2020). This avoidance can be achieved through contact with disinformation that is difficult to refute in the short term and which is persistently disseminated through the implementation of astroturfing strategies. The dissemination of content associated with diverse, intermingled, seemingly unrelated topics could be being deliberately promoted outside Spain with a single purpose: to condition Spanish public opinion through social networks.

The hypothesis of this work is: having detected tweets in Spanish, related to Spanish issues, and geographically located in the Philippines –a country with few Spanish speakers– we expect there to be an organized, non-random network structure. This structure would disseminate information through similar techniques to Spain in the same way as shown to South Korea, the United States or other parts of the world as mentioned above.

To corroborate this hypothesis, we selected a series of random users from the same location in the Philippines, who tweet in Spanish. Subsequently, we follow up on these users for several months in order to verify whether the existence of a non-random network can be objectively established.

A secondary objective of this research is to establish the study of themes, topics, and vectorization, as it is understood that the existence of a diversity of opinions on current Spanish affairs from the same a place thousands of kilometers away and of non-with barely any Spanish speakers would be an artificial debate. To this purpose, a form of analysis is established. To this end, we analyze the data through two methods: text mining and analysis of feelings and emotions.

2. Methods

This paper aims to establish whether astroturfing was used during the Covid-19 pandemic to manipulate Spanish public opinion through *Twitter*. The study focused on messages published on *Twitter* in Spanish by users geolocated outside Spanish territory –specifically, in the Philippines. This decision was based on statements by authors such as **Bradshaw**, **Bailey** and **Howard** (2021), who point to this country as one of the main promoters of disinformation during the pandemic.

The study is based on a quantitative approach to the analysis of the tweets, as such:

- We collected tweets in Spanish geolocated within 500 km of the city of Manila, capital of the Philippines. Subsequently, it was possible to better locate the tweets within 100 km of the city of San Jose. The collected tweets were sent in June 12 to 16, 2020. A total of 1,496,596 tweets (475,001 tweets and 1,021,595 retweets) were identified at this stage, using the open-source statistical software *R*, in its *RStudio* environment in version 1.2.5033 and the *RTweet* capture library (**Kearney**, 2018). A total of 491,896 users authored the collected tweets.
- The tweets were geolocated by adding a filter to the query sent to the *Twitter* API by establishing longitude and latitude coordinates (selected through *Google Maps*) and a radius. This procedure made it possible to estimate the radius in kilometers of each of the tweets collected in this stage. Although the results provided by geolocation through the *Twitter* API are not entirely accurate, studies by **Van-der-Veen** *et al.* (2015), **Holbrook** *et al.* (2016) and **Lopreite** *et al.* (2021) have applied this technique and identified an average error of 256 kilometers (**Holbrook** *et al.,* 2016). This margin of error has a geographical reliability of 83.5% in the Philippines region (**Van-der-Veen** *et al.*, 2015).
- Using the retweets (N=1,021,595) and users (N=491,896) collected in the previous stage, we used cluster analysis (**Chen**; **Hossain**; **Zhang**, 2020) to identify groups (clusters) and affinities between users. In these clusters, we identified users whose in- and outdegrees had values between 2 and 5, that is, users with a medium-low profile of participation, as well as nano-influencer traits. In total, 95,509 users with these traits were identified during this process. These parameters are intended to track users who follow the typical characteristics of low profile astroturfing to be able better to introduce new messages without rejection by other users, as **Keller** *et al.* (2020) established at the co-tweeting stage.
- From the 95,509 users with these characteristics, a total of 280 users were randomly selected, 20 for each of the 14 main clusters identified. These comprise the total number of case studies in this work. From these users, we collected the total number of tweets posted from 22 July to 2 November 2020 (103 days), namely 309,947 tweets, which comprise the final sample of this study.

The data associated with the final sample of messages published by the 280 users was then analyzed in the following manner:

- Network analysis, using *Gephi* (version 0.9.2), to graphically study the network created by the tweets by applying the *Open Ord* and *Yifan Hu* algorithms (**Martin** *et al.*, 2011; **Hu**, 2006). This process included an analysis of clusters and their associated influence (**Chen**; **Hossain**; **Zhang**, 2020) through the modularity optimization methodology based on the Louvain algorithm (**Blondel** *et al.*, 2008), as well as modularity and betweenness centrality (**Bastian**; **Heymann**; **Jacomy**, 2009), harmonic centrality and eccentricity distribution.

- Using *R* for statistical analysis and determination of bot behavior probability using *Tweetbotornot* algorithm (**Kearney**, 2018).
- Text mining study using *KH* coder software (version 3.0), based on *R* (**Higuchi**, 2016), to determine the main frames. We implemented the stemming technique, which is based on trimming the morphemes of the words that provide information and eliminating the empty words or "stop words" in Spanish[1]. We then performed a bivariate multidimensional analysis of the 8 main clusters of words that appeared most frequently in our sample (**Arce-García**; **Menéndez-Menéndez**, 2018).
- Analysis of polarity and emotions through the lexicon developed by the *National Research Council of Canada* (*NRC*) in its 0.92 version in Spanish (**Mohammad**; **Turney**, 2010; 2013) through the *Syuzhet* library (**Jockers**, 2017) in *R*. This lexicon is used to determine the basic feelings –anger, anticipation (expression of rational thinking), disgust, fear, joy, sadness, surprise and trust– in people and their discourses (**Sauter** *et al.*, 2010). This natural language processing technique is a way of determining the degree of positive or negative subjectivity of each tweet and its intensity. However, although this lexicon is very advanced in English, it has the disadvantage of not being as advanced in other languages (around 70% certainty in Latin languages) (**Mohammad**, 2016). This analysis will reveal whether there are polarised messages in the language that, on the one hand, will identify messages that are intense and emotional but, on the other hand, easily identifiable.

To determine whether the network is a real structure, we calculated certain variables to compare the behavior of this network to that of a random network. To this end, we attempted to determine whether the network meets the criteria of the so-called small-world effect, or even the ultra-small-world effect. According to **Menczer**, **Fortunato** and **Davis** (2020), an ultra-small-world effect, which they define as the "trademark feature of many real networks", occurs when there are few hops to navigate the network, small average distance values (compared to the value of 5 that they establish as average for *Twitter*), and high modularity values (considered above 0.6 as good and 0.8 as very good by **Lantz** (2019). On the other hand, **Barabasi** (2016) establishes the relationship between the distance between a network scale network versus the distance of a random equivalent network. He thus establishes that a small-world network will have an average distance comparable to ln N (N = number of nodes), and an ultra-small-world effect equivalent to ln (ln N). For values even lower than an ultra-small-world, **Barabasi** (2016) interprets this as a hub-and-spoke, where the nodes are so close that they are interconnected to the same central hub. Other elements, such as the temporal study of the evolution of the average degree of the network and the average clustering coefficient, were also observed to determine behavior.

3. Results

First of all, we must point out the distribution of the 1,496,596 messages collected between 12/06/2020 (16:53 hrs.) and 16/06/2020 (08:11 hrs.) in our first stage of identification and classification. After cluster analysis of retweets, we identified a total of 5,338 different clusters, 14 of which include 72.63% of the tweets analyzed in this work. Table 1 shows how, beyond the diversity of topics addressed in these tweets, how topics (ecosystems) associated with ideological issues, certain political parties, religious, scientific or related to law enforcement represent 26% of the tweets studied here; while the rest focus on seemingly superficial topics associated with models, youth, animals, influencers, humor or other leisure and/or entertainment activities (video games, football, music).

Table 1. Main clusters identified

Cluster	Central themes addressed by cluster	Percentage
1	Models	15.80
2	Far-right	13.71
3	Teenagers and animals	8.13
4	Left-wing parties (*Podemos-PSOE*)	7.47
5	Influencers	6.98
6	Humor	4.95
7	Videogames	4.80
8	Law enforcement (Police / Civil Guard / Army)	2.34
9	Football	2.17
10	Music	2.02
11	Science	1.69
12	K-Pop	1.52
13	TV, Film, and Streaming	1.48
14	Religion	1.07

The network analysis (figure 1) of all the retweets posted by the 491,896 users shows a high modularity value (0.787). This reflects a high level of association between users, despite the wide diversity of clusters or groupings of the topics addressed by them, represented by the 458,029 nodes and 738,981 edges that comprise the networks in which each of these tweets were located. These networks have an average diameter of 29 hops, an average path length of 8.775 and an average degree per account of 1.613.

In Figure 1, we can see all the groups identified through cluster analysis surround each other, with hardly any separation between them. This is to be expected among highly polarized groups, as has been pointed out in other studies by authors such as **Vila-Márquez** and **Arce-García** (2019).

The polarization observed in Figure 1 can especially be seen, above all, between the far-right and left-wing groups, with, on the one hand, messages with many references and retweets of messages from the official accounts of Santiago

Abascal, president of *Vox* (eigenvector = 0.518 and indegree 17,184), and the rest of this far-right political party, as well as news from ultra-conservative digital newspapers and blogs. Likewise, there are also numerous news items retweeted from web portals aimed at propagating disinformation, such as Caso Aislado[2] (eigenvector = 0.046 and indegree 1,531) or Mediterráneo digital[3] (eigenvector = 0.0389 and indegree 1,296). On the other hand, in this same polarization, there are also numerous accounts with followers of left-wing Spanish political parties, mostly followers of *Unidas Podemos* (eigenvector = 0.132 and indegree 4,386) and to a lesser extent of the Spanish socialist workers' party (*PSOE*)[4] (eigenvector = 0.063 and indegree 2,109). Users who are followers of these parties repeatedly confront the tweets published by those associated with ultra-conservative parties such as *Vox*, in a possible false flag operation. This almost continuous monitoring, continuation and response between users associated with ultra-conservative parties and those close to *Unidas Podemos* and *PSOE* causes the *Open Ord* and *Yifan Hu* algorithm to determine that these groups are closely related, as seen in Figure 1.

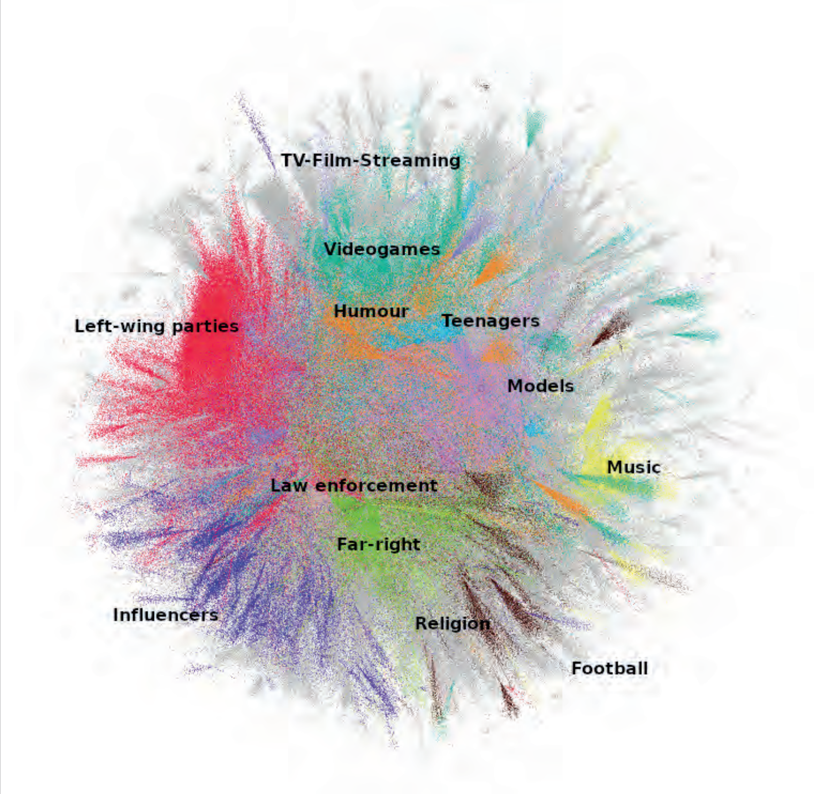

Figure 1. Graph of retweets collected geolocated within the Philippines

It is striking that less than 1% of all the tweets analyzed alluded to or had a direct association with other political parties in Spain (*Ciudadanos*, with an eigenvector of 0.027 and indegree 892). None of the tweets we collected were associated with the *Partido Popular* (@populares)[5] or other parties (@Esquerra_ERC, @JuntsXCat, @MasPais_Es or @eajpnv).

The centre of the network of retweets of the messages analyzed, determined by the eigenvector value, is found around user accounts that write emotive messages, such as @rauwalejandropr (eigenvector = 1.0) or @MykeTowers_ (eigenvector=0.779). These users fulfill a nano-influencer role, as they have a low number of followers (around 500), as in the case of @radxime. But other user profiles were also identified, some of which were subsequently suspended for not complying with *Twitter* rules[6], for security or authenticity reasons (e.g., @nxhi_ with eigenvector = 0.573), or for being related to accounts of Spanish political actors, such as Santiago Abascal (@Santi_Abascal with eigenvector = 0.518), president of the far-right *Vox* party.

Around the cluster of models or young girls posing and/or taking selfies –the largest group of users detected in terms of tweet traffic– there are also some users who were subsequently suspended from *Twitter* for breaking the rules (e.g. @Ofiicialcazzu). The centrality of the network of retweets continues in the far-right cluster, surrounded in the graph in Figure 1 by close connections of tweets directly associated with the cluster that we have come to call "Law enforcement" (tweets that allude directly and indirectly to the police, the Civil Guard or the Spanish army), as well as the cluster of tweets with religious content.

The data observed from the network analysis also show that there are highly interrelated clusters with a high density of interconnected accounts, with messages about teenagers and animals, humor (mainly through the rebroadcasting of tweets from satirical humor magazines such as @eljueves or @elmundotoday), videogames, music (with a prominent subgroup dedicated to K-Pop style groups) or television, film or streaming platforms. The topics covered by these clusters are mostly associated with or allude to content directly linked to Spain, published by users geographically located in that country; although small groups (each representing approximately 1% of the total number of messages in this cluster) deal with topics covered by users from other countries (Argentina, Mexico or Venezuela).

A betweenness centrality analysis reveals the users that connect the various clusters. Of the 50 users with the highest intermediation value (all of them above 900,000), of the total of 491,896 users responsible for the 1,496,596 tweets collected between 12 June 2020 and 16 June 2020, 50% are located in the far-right cluster, expressing in their

> This strategy was undertaken by users geolocated in the Philippines, interested in promoting content associated with the Spanish agenda setting, clearly intended to influence public opinion

tweets sympathy or affinity to the political party *Vox*; 12% are located in the left-wing cluster and the rest of the users (38%) are located in the teenagers and animals and models clusters. This data allows us to see how these four clusters structure the flow of information in the entire network.

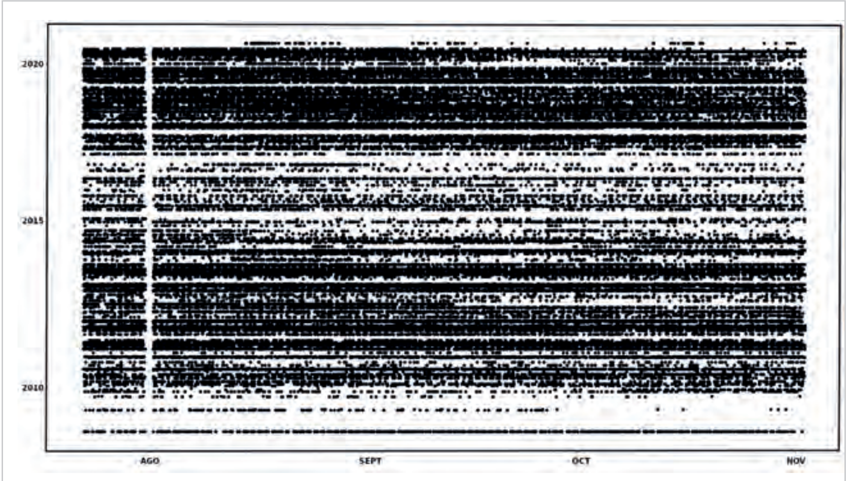

Figure 2. Tweets sent throughout the analyzed period, ordered by the accounts' date of creation

After randomly selecting 280 users (20 from each of the 14 main clusters), 309,947 tweets were collected from 22 July 2020, 12:36 hrs. to 2 November 2020 09:20 hrs. (GMT time), except for 1 August, when we were not able to collect data for a few hours due to a connection failure. In this phase of the work, 115,482 tweets and 194,465 retweets were collected from 266 accounts. The remaining 14 accounts were excluded from the analysis because they were suspended from *Twitter* or had no activity.

As for the frequency of posting, in figure 2 we see a continuous flow of tweets posted by the 280 users under analysis. There are no changes associated with a higher flow of messages published by these users at the level of the 14 clusters that concentrate most of the messages analyzed in this study.

The number of tweets per cluster and their main features can be seen in Table 2. This table shows how, in terms of the number of concentrated messages:

- Most of the clusters that exceed the average daily number of messages published during the period of data collection addressed in this study (214 daily messages) are those associated with clusters related to leisure and/or entertainment (e.g. music, TV and film, and influencers). The clusters associated with music have the highest average daily number of messages published (462 messages if we consider the average number of daily messages published in the music and k-pop clusters).
- Among the clusters that structure the flow of information, only the left-wing cluster has a higher average number of messages (299 tweets per day) than the general average (214 tweets per day) in the rest of the clusters, which account for 72.63% of the tweets analyzed. Of the rest of the clusters that make up this group, the models cluster remains within the general average observed at the level of the 14 main clusters, while the far-right and teenagers and animals clusters have a clearly lower average number of tweets per day (150 and 131 messages, respectively).

Table 2. Tweet data of the 280 accounts analyzed

Cluster	Number of tweets issued period	Average number of tweets per day	Average bot probability	Followers		Follows		Historical favorites		Historical tweets sent		Account creation date	
				Average	Median	Average	Median	Average	Median	Average	Median	Average	Median
Models	22,046	214	0.301	499.2	368	402.2	354	33,440	27,101	33,424	26,696	13/03/2015	20/02/2013
Far-right	15,481	150	0.395	211.9	183	416.2	416	8,329	6,980	15,749	7,873	15/10/2015	15/08/2017
Teenagers and animals	13,537	131	0.332	1,020	503	774.8	382	14,527	12,858	22,443	9,286	30/12/2015	02/05/2016
Left-wing	30,817	299	0.490	1,590	859	1,256	1,139	29,442	27,366	33,325	24,566	09/03/2015	26/11/2015
Influencers	24,211	235	0.360	554.2	273	457.8	306	34,180	20,281	34,842	17,807	13/09/2015	10/05/2017
Humor	18,120	176	0.522	5,366	177	2,040	514	15,734	7,390	23,644	29,672	26/07/2013	07/03/2013
Videogames	9,700	94	0.348	345.1	257	306.9	325	83,604	41,412	31,135	28,313	07/06/2013	22/07/2013
Law enforcement	10,612	103	0.318	1,654	900	582.5	533	45,570	21,493	42,489	14,581	04/11/2014	18/10/2013
Football	16,870	164	0.352	792.9	662	1,032	980	28,209	20,398	72,234	50,571	06/12/2011	06/10/2011
Music	65,874	640	0.521	875.6	540	877.8	705	68,967	51,453	64,635	24,032	18/05/2017	17/08/2018
Science	3,893	38	0.332	253.1	142	419.6	120	39,070	60,308	15,536	22,554	29/05/2012	04/12/2010
K-pop	29,280	284	0.547	1,061	1,121	1,531	1,832	43,958	41,873	38,059	14,392	10/01/2017	05/07/2018
TV, film, and streaming	30,588	297	0.394	3,411	2,525	2,462	1,092	35,529	21,597	38,624	33,283	07/04/2016	14/01/2018
Religion	18,948	184	0.347	3,404	453	3,149	905	15,087	17,811	34,216	24,131	05/11/2013	17/11/2011

In terms of followers, only the left-wing cluster has an average number of followers similar to the general average observed in the 14 clusters identified (1,503 followers), while the rest have a clearly lower average number of followers, with the far-right cluster having the lowest average (211 followers). In the rest of the cases, it is striking to see that:

- Clusters with a high daily volume of published messages, such as those associated with music, have a lower average number of followers (968 followers).
- Clusters such as law and order and religion, despite not being among the most active in terms of messages, are among those with the most followers (1,654 followers and 3,404 followers, respectively).

As for who the users related to the main clusters identified follow, the data in Table 2 also show that the left-wing cluster has an average number of users who actively follow the user and are not followed back (1,256 followers), slightly higher than the general average (1,122 followers). In the rest of the clusters that structure the information flow, the same trend described above prevails, especially in the case of the far-right cluster –users associated with this group are among those who follow the fewest number of users.

The historical number of tweets posted column in Table 2 also shows how the clusters that structure the flow of information have a lower average than the 14 main clusters identified (35,740 messages). In these four clusters, the average time since account creation is between 4 (in the case of the far-right cluster) and 6 years (in the case of the teenagers and animals cluster), with a total average for the four clusters of 5 years. This average account age is slightly lower than the average the clusters which account for 72.63% of the messages collected (6 years).

Regarding bot-like behavior in users associated with each cluster, the 14 clusters can be classified into three main groups:

- Clusters with a high probability (50%) of bot presence: Music, k-pop, and left-wing.
- Clusters with a medium probability (40%) of bot presence: Far-right and tv-film.
- Clusters with a low probability (30%) bot presence include the rest of the identified clusters.

The network analysis carried out on the 280 users studied in this work revealed a network of retweets comprised of 42,216 nodes and 71,687 edges, with a modularity of 0.791. This network comprises 34 communities, with an average maximum distance between their furthest ends of 3 hops, and an average path length of 1.116. The high modularity values and very low average path length shows us the presence of small-worlds around the network generated from the messages posted by the 280 users analyzed in this work, as described by **Milgram** (1967) and **Himelboim** *et al.* (2017). Therefore, these 280 users, beyond being distributed in different identified clusters, can be considered as a group with a strong linkage and analogous network behavior. According to an analysis of connected components in *Gephi* using **Tarjan**'s algorithm (1972), of a total of 71,687 edges or connections, 42,214 are strongly connected, only 9 are weakly connected; and the rest (29,464 edges) have connections within normal parameters.

In Figure 3 we can see that most tweets have harmonic closeness centrality values near or equal to 1, which reflects a high density and proximity between nodes. This is confirmed by the very low eccentricity values (distance or hops between the farthest nodes from each node) observed in this figure (most of them between 1 and 3 hops). This distribution of such small distances and proximities would not only confirm the presence of small-world networks, mentioned above, but also the existence of ultra-small-world networks resulting from the proximity between randomly chosen nodes from different topics with no apparent connection, but which actually define the existence of a real, interconnected network structure (**Menczer**; **Fortunato**; **Davis**, 2020). Following the interpretation of **Barabasi** (2016), the calculation for ultra-small-world systems with N=280 would be ln (ln N)≈1.73, which would be the closest to the average distance calculated in the network (1.116). But even according to their definition, it would be closer to the hub-and-spoke phenomenon, which defines the possible presence of a central hub.

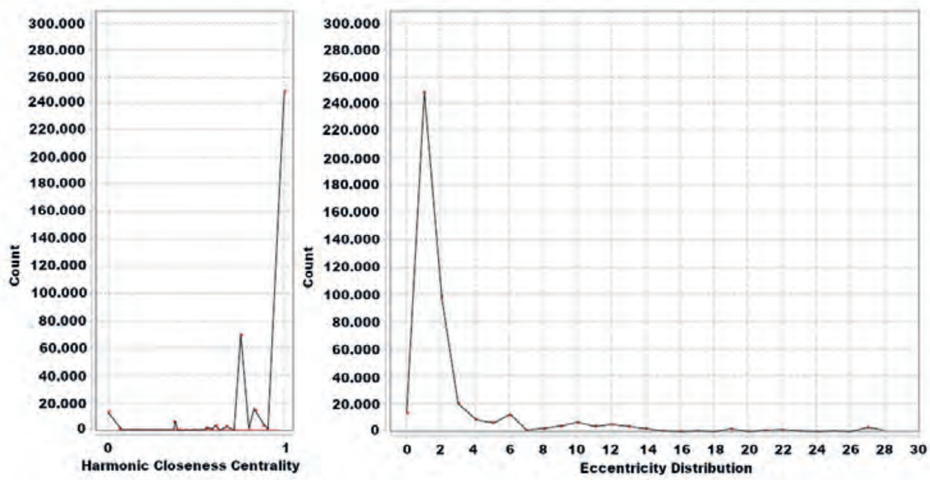

Figure 3. Distribution of harmonic closeness centrality and eccentricity values

The graph created from the retweets of the N=280 accounts (Figure 4) allow us to estimate the existence of several highly interconnected clusters as well as ramifications that connect them. In Figure 4 we can see, at the centre of the graph, a cluster of accounts dedicated to humorous tweets. For instance, @elmundotoday is very close to other groups, such as the far-right cluster, due to the type of content it promotes, and @eljueves has more followers on the political left. Other accounts that connect different clusters together are those associated with video games and influencers (@IbaiLlanos, which fits in with the teenagers cluster), those which deal with Covid-19 (e.g. @Coronavid19 and @navedelmisterio, which tweet humorous and conspiratorial content around the pandemic), or websites focused on the promotion of disinformation (e.g. *ActualidadRT* is *Russia Today* in Spanish, represented in Figure 4 as "media", and very close to the models and teenagers and animals clusters).

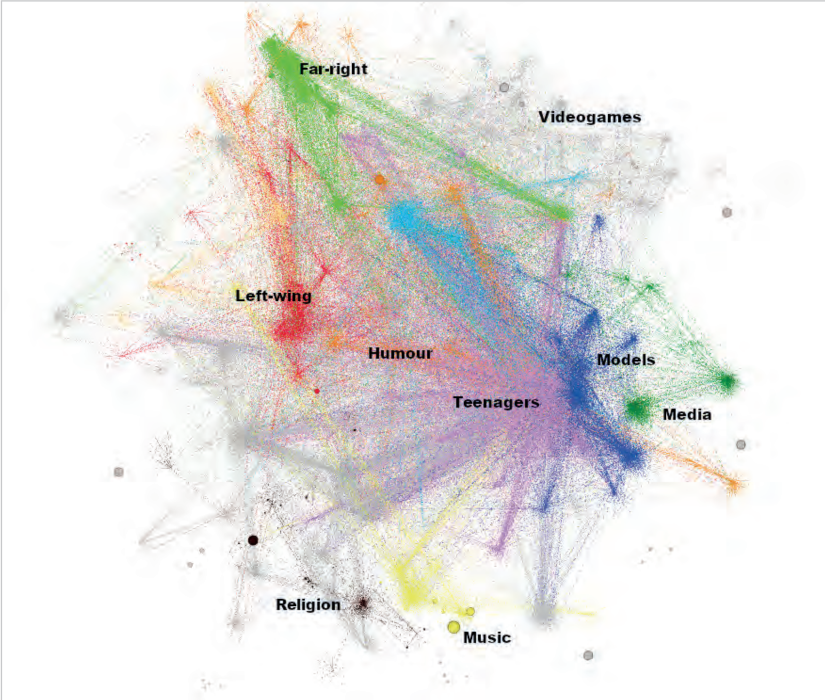

Figure 4. Graph of the retweets of the 280 users accounts in the sample

In Figure 4 there is a noticeable absence of distinct blocks, as is usual in polarized debates. Remarkably, the same type of graph was observed throughout the period of collection of the messages analyzed, with no new features or new connections emerging with new actors, but only a linear increase in the total in- and out-degree of each node. The stability of the network structure over time, shown in Figure 5, can be seen through the constant increase in the average degree in the accounts, and the increase in the average coefficient of the clusters at the end of the period of collection of the messages analyzed in this work. Small stepwise jumps and constant plateaus of mean value with no gradual increase could be observed throughout the collection period.

An eigenvector analysis of the retweets network of accounts followed by our selected sample shows how the center falls around a group of young video game influencers (e.g. @IbaiLlanos, eigenvector = 1); followed by media accounts (e.g. @el_pais 0.928, @elmundoes 0.681, @ElHuffPost 0.666, @La_Ser 0.654); accounts related to law enforcement (e.g. @policia 0.734 and @policia 0.734); and teen influencers or accounts about humor or animals (e.g.@sussooss 0.907, @moadbarghout 0.737, @Gordito_Perrito 0.468 or @gatitos_qctd 0.445). When determining *Pagerank*, many of these users lose visibility to others, such as: @ActualidadRT (pagerank = 0.0029 second media account after @A3Noticias with 0.003), @minsugacheonye (0.0051, with a high visibility in the k-Pop cluster), @oracion_milagro (0.0045 with high visibility in the Religion cluster), @CallofDutysEs (0.0044, with a high visibility in the Videogame cluster) and other users with nano-influencer profiles (fewer than 7,000 followers) such as @Charo_ocejo, @lor1812, @JcQuer or @DianaMata, with visibility in the Humor cluster, 0.0044, 0.0035 and 0.0044, respectively.

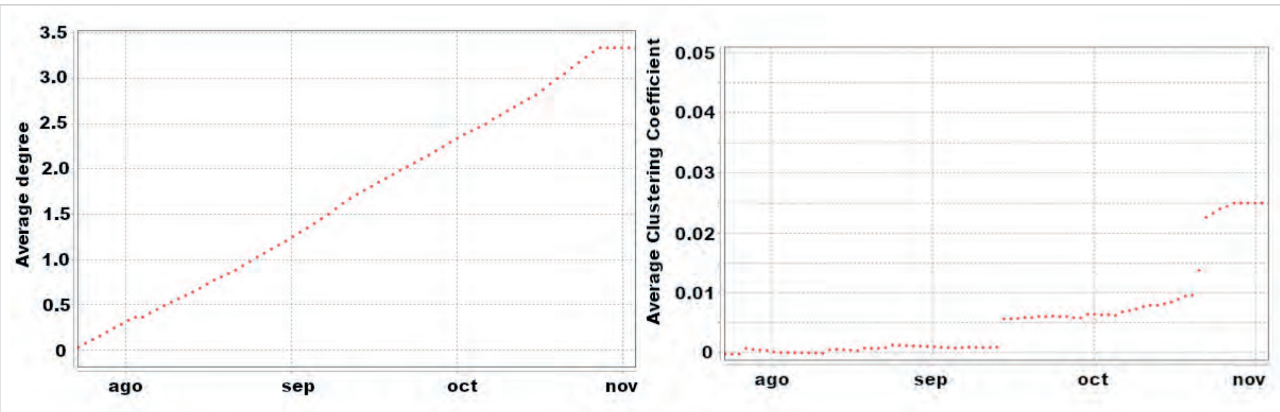

Figure 5. Average degree per node and average clustering coefficient identified with the 280 users analyzed

The betweenness centrality values allow us to identify 13 accounts that connect the network: @IvanGomezTerro1, @martaxvalues, @Godisalbareche, @soygrito, @DieBoer95 (account subsequently disappeared), @Josepmariajosep, @Fran_Rodri_guez, @ElMolecula23 (account subsequently disappeared), @Cavitaxxx, @SoyAmargada (account suspended for not complying with *Twitter* rules), @CinezinCZN, @mspinto92 and @jinhitrules (account subsequently disappeared). These accounts are concentrated in certain clusters: Music and K-Pop (six users with values between 3.353 and 1389.5), far-right, humor, tv-Film, football, law enforcement and left-wing, with lower values (seven users with values between 15 and 550). The observed connections allow us to visualize the relationships between different nodes of the network through this sort of users, who are in charge of "connecting" clusters. This is even though these users present small centrality or eigenvector values (between 0.209 and 0.036) but high closeness centrality values (between 0.527 and 1). This would help us to show how little-known nodes (not the main ones) are the ones who build bridges between clusters.

The words derived from the morphemes extracted by the algorithm using the stemming techniques described in the methodology reveal some common tweets between clusters (Table 3) beyond the usual topics addressed by each cluster. In the case of the far-right or videogame clusters, football discussions are introduced, while religious conversations appear in the k-pop cluster. Similarly, in the law-and-order cluster, television programmes on mysteries, beliefs and conspiracy theories are discussed. Mentions of health and emotional states are also observed in several clusters (e.g. music, k-pop, teenagers and animals, influencers and models), associated with the Covid-19 pandemic. These tweets refer to having to stay home and describe the situation as "shit". However, other tweets associated with beliefs and gratitude are also present.

Table 3. Main topics by co-occurrence analysis

Group	Main topics by co-occurrence analysis
Models	Because-person-life-be-good-people-want-me-do-more-wrong Better-friends-I- need-sleep-arrive-home Nothing-someone-much-thinks-something Pleasure-love-say-say-say-are-look With-me-always-nobody -talk-feels This-very-years-good-today Time-world-listen-listen-count-do-until-some-each-cry-live -win-now Power-happy-we- out-of-shit-days-where- end
Far-right	Mother-can-because-sunshine-years-lot-bearing-power So-you- your-very-best-life-my-good-me Psoe-Iglesias-against-people-million-Spanish-government-country-Spain-Sanchez-state-new-king Now-we- home-will-today-lead- end-month-except-two-twice Leave-day-forever-put-thanks- good-here Where-also-call-must-want- talk- self-believe-see Communicate-measures-policy-public-page Barça-Messi-people-last-bad-thing-bad-work-nothing-that-was
Teenagers and animals	You-much-just-have-life-people-when-people-want-know-because- are-thing Power-home-years-leave-us-friend-day-have-child-until-mum-leave-day-study Reach-need-help-thanks-work-also-months-today Going-out-nothing-talking-good-nobody-is-wrong-tell-that-something Say-someone-always-never-think-feel-every-cry-look-place Take-better-believe-do-taste-this-see Time-say-will-want-that-neighbor-who-win-go
Left	Pass-be-all-podemos-more-there-has-because Health-month-two-new-hour-latest-Madrid-must-Spain-case-was-until-finish-call Life-family-hope-thanks- good-know-want-better-want- leave Government-now-PP-politics-right-Vox-same-vote-Pablo-have When-say-they-say-talk-go-out-time-less King-who-take-count-people-work-years-today-days-sure-who Way-about-common-public-Ayuso-million-pandemic-against-Spanish-president-state Stay-people-good-place-believe
Influencers	Thing-people-life-passes-people-when-because-be-sunny-toward-everything Someone-want-good-talk-good- am- am- self-know-bad-friend-take See-stay-good-years- boy-Madrid-looks- less World-gives-pleasure-better-nothing-live-think-some Have-arrive-call-home- can-leave-finish-days Nobody- my-believe-feel-say-will-say-something Say-am-sometimes-always-never-need- true-cry-win -do Also-look- little-now-photo-whore-now-who- are
Humor	Can-sun-have-friends-until-two-continue Something-say-nothing-people-very-create-because- can-much-have Person-thing- have-know-when- always-am-this-can-someone Leave-want- see-like- better-win Part-Madrid-after-child-needs-from-work-home-day-years-good-come-new-our-thanks -hours Never-be-bad-live-well-should Send-design-participate-submit-sweepstakes-giveaway-shipping-follow Finish-was- stay-story-now-leave-call-where -went

(cont.)

Group	Main topics by co-occurrence analysis
Videogames	Win-want-sunshine-see-lot-leave-day-can-be-better-me Our-last-new-to-here-power-first-two-come-next Pass-when-say-good-people-time-know-put-say- done-am-something Play-part-good-final-exit-Madrid-finish-same-year-culers-Barça-fcblive Like-stay-no-bitch-kinggrizzi-well Because-very-xd-always-seems-bad-nothing- inhabit-guardiolista4-less Let's-history-about-thanks -wait-game-today-3-2-us Friend-years- also-talk- life-bring-home-person-someone
Law enforcement	Know-better-good-day-night-good-day Have-alone-much-be Madrid-mask-mask-greater-month-two-people-communist-means-against-state-some-case Life-today-see-have-mayor Idiazayus-politician-country-Sánchez-Spain-government-now-wants-duty Can-nothing-take-work- matter-years-help-hour-about-child Wrong-less-same-wait-believe-people-go-out-well-seems-always-also-navedelmisterio-carmenporter_-secret-go Lolamaiz-they-are-living-our-arrival-are-so
Football	Player-Barcelona-club-Messi-leave-team-two- play-match-today Some-similarity-say-nothing- when-have-time More-pass-all-very-sun-there- be -lot Official-signing-season-last-morning-destination-wait-new-days-wait-first Goal-football-ideal_granadacf-our-first-home-win-power-finish Years-good-day-know- be-same-always-see-take FCB-Barcelona-report-agreement-Koeman-Suárez-signing-Bartoméu-Luis Stay-want -Madrid-account-next-year-about-talking-about-must-now
Music	Concert-good-day-out-maybe-will-see-let -be When-alone-can-lot-all-be-want I'm-ahahahah-weep-look- finish-my-am-now-little Like-song-thanks-cepeda-listen-arrive-album-music-also-win Cepedaoficial-can-want- tomorrow-night-wait-here-again-vote-hello Same-her-always-person-people-know-can-always-better-life-love Truth-bad-say-say-thing-nothing-good-something Photo-dawn-video-Madrid-days-sub-sing-two
Science	Do-can- have-just-more-be-when- work- are-people Pandemic-leave-years-good-some-take-better-come Today-our-about-until-power-day-was-see-page Vote-public-merin-against-vacations-president-state-politics-part-deberber-congress-Peru Want-there-no-country-this-believe-where-bad-good-go Family-need-favour-help-seek-very-thanks- someone-have That-becuase-have-new-change-nothing-put Bring-this-people-time- once-healthy-me-you
K-pop	Wait-also- bts-day-boy-can-just-be-leave Like-good-have-want- right-when-know For-true-bad-something-nothing-people-talk-believe-now-have-see Love-exaarmy-exabff-life-thank -world-people-always-better-same Song-army-dynamit-bangt-our-new-days-video-new-album-bts-today-votes-mtvhottest We- counting-we- stay-getting-time God- am-my-cry- are-go Namjoon-years-jungkook-jimin-yoogi-photo-hil
TV, film and platforms	Anything-can -much-more-be But-good-believe-always-little-nothing-like- see-stay When -have- day- live-hope-someone-wants- look-live-only- once Thanks- this-story-series-movies-film-best- is-let Spain-days-people-public-first-duty-work-years-done Covid-19-doctor-health-last-greatest-part-time People- going- seem-stay-thing-two-bad-game-something @isabellegaz-@famartinez2001-@jgrevert-@rebecaceld-@dionosiosabell-agballest-@auroragilt-@car73x-@jacano56-@jasanv
Religious	God-life-hope-life-live-good-lord-love-Jesus-Christ-Christ-peace-father-forever-ours Should- can-sun-have-when-well-be- know Jehovah-psalm-word-heart-son-path-thing-man-green-seek-holy-bible-kingdom-1960 Help-lot-person-get-matter-better-you-take-arelysshaw Go-out-doctor-home- country-people-until Faith-brother-blessing-amen-bless-days-thanks- new Time-same-talk-nothing-is-bad-can-believe-now-was-say-where- leave Family-each- today-friends-health-follow

Table 3 is complemented by the exploratory and intentional choice of words associated with current affairs present in Spanish media during the period of data collection. Table 4 further reveals how some of these topics appear in more than one cluster, reinforcing positions not necessarily associated with the central topics of each cluster, but taking advantage of these topics to insert content aimed at promoting disinformation related to Covid-19, the Spanish government and its political actors, and issues around immigration and “okupas”, squatters who occupy abandoned houses in Spain.

Table 4. Words associated with topical issues collected in identified clusters

Words associated with current affairs	No. of tweets	Description
Chlorine	354	In the science (12) and teenagers and animals (9) clusters we detected tweets warning about problems with the use of chlorine and its derivatives to cure Covid-19. By contrast, in the religion cluster there were many more tweets spreading misinformation about its supposed beneficial uses (318).
Vaccine	620	Conversations on vaccine side effects, "big pharma", humor or criticism of the government take place in the teenagers (19), models (29), influencers (11), videogames (18), law enforcement (25), humor (54), religion (68), tv-film (114), far-right (44) and left-wing (76) clusters. Only the Left-wing and Science groups were seen to be in favor of vaccination, although their tweets are attacked.
Pedro Sánchez	853	194 tweets from the far-right cluster, 51 tweets from the law enforcement cluster and 11 tweets in the models and teenagers and animals clusters focused on attacking the Prime Minister. 340 tweets were located in the left-wing cluster, supporting him against Vox or the Community of Madrid.
Immigrant or immigration	444	Spread across all clusters, especially law enforcement (59), far-right (163), football (10) and TV-film (12). Sentiment is always negative, speaking of problems caused by immigration or migrants being infected by coronavirus.
Pablo Iglesias	1,109	A target of attacks by all groups, especially the far-right cluster (390 tweets). In the left-wing cluster, 516 tweets were identified defending this Spanish politician.
Fernando Simon	223	A target of attacks in the Far-right (50) cluster, as well as music (16), law enforcement (24) and humor (17). The left-wing cluster produced 116 tweets in his favor.
Pablo Casado	1,470	A target of attacks mainly from the left-wing cluster (1,100 tweets), but also from the far-right (100 tweets) and law enforcement (60 tweets) clusters.
"Okupa" (Squatters)	405	Complaints about squatting in the teenagers (8), TV-film (30), K-pop (6), law enforcement (47), football (22), and far-right (162) clusters. In the left-wing cluster (98), possible campaigns to put squatting on the agenda setting are attacked.
Covid	4,712	Tweets warning of calamities, misfortune, or losing a job or a family member because of Covid-19 appear, most notably, in: teenagers (122), models (861), tv-film (1,389), k-pop (32), law enforcement (332), influencers (78), videogames (12), humor (311), religion (493), left-wing (229) and far-right (323).

The vectorization study, shown in Figure 6, presents two main aspects: the tweets present a significant polarization in 12.11% of the messages (with values in *NRC* lexicon equal to or higher than 3 or -3 in positive and negative discourses respectively) (**Fitzgerald**, 2017), with maxima and minima of +17 and -18. Over time, no variations are observed and the mean remains constant (represented by a blue line in the figure and with a mean value of 0.132). This percentage of 12.11% is similar to **Vidgen**'s estimate of 15% of English far-right party supporters (2019), with the intention of showing a seemingly moderate discourse and to be

> "less likely to be deleted by the social media platform, and less likely to attract the eye of law, it stayed online for much longer, if not indefinitely" (**Williams**, 2021).

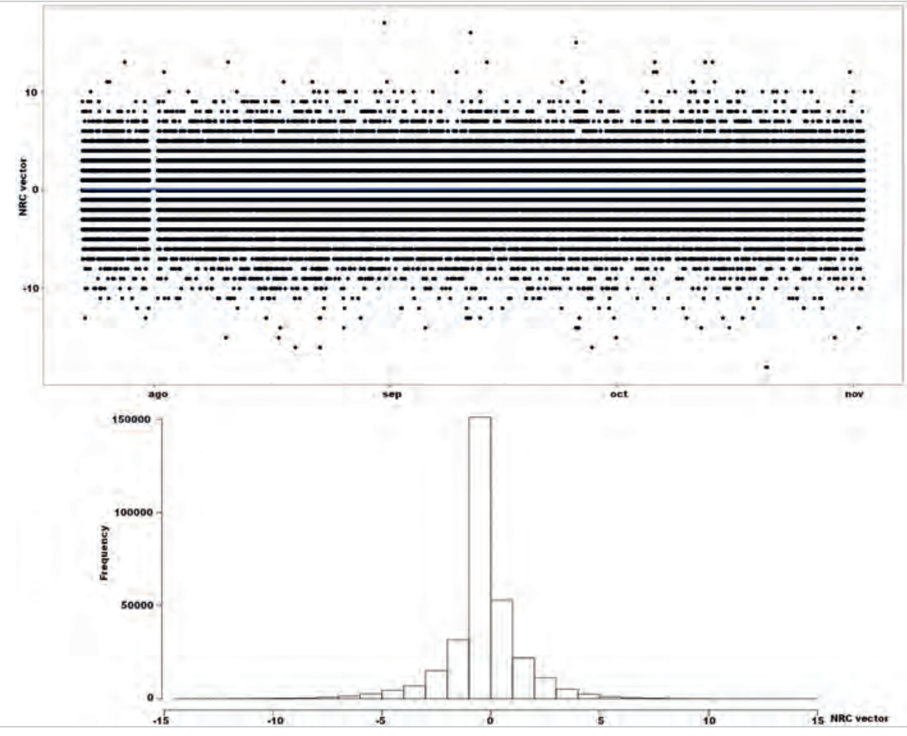

Figure 6. Sentiment vector analysis over time and intensity-frequency histogram analyzed

The analysis of emotions linked to discourse determined the presence of the following: trust, 19.52%; sadness, 15.47%; fear, 14.56%; anticipation, 13.58%; joy, 12.09%; anger, 9.63%; disgust, 8.22%, and surprise, 6.93%. Although trust is the main element, the next most important are sadness and fear. The analysis does not reveal a high level of polarization or emotional intensity, but in a set of users whose interest was to enter different discussion groups or bubble filters, discourses that were easily detectable as extremes (**Pérez-Colomé**, 2020) would generally be avoided to deceive *Twitter*. The percentage that shows clear polarization is highly polarized.

The results of this research have determined the very possible presence of network, which is not only non-random, but ultra-small-world, that comes close to the quasi existence of a single possible hub, consistent with the initial hypothesis

4. Conclusions

The study of the tweets posted by our randomly selected 280 *Twitter* users reveals how astroturfing was used during a period of time dominated by the Covid-19 pandemic in Spain. This strategy was undertaken by users geolocated in the Philippines, interested in promoting content associated with the Spanish agenda setting, clearly intended to influence public opinion. In this strategy, tweets were aimed at very specific social groups or collectives (teenagers, security forces or political entities), and widely disseminated topics (humor, sex, religion, football, music or television). The targeting of messages towards teenagers has already been highlighted by **Williams** (2021), who exposes the so-called "red-pilling" of people in the United States and England by the alt-right. The term "red pill" is a reference to the *Matrix* films, whose characters take a red pill to "wake up" from a deceptive reality.

The results of this research have determined the very possible presence of network, which is not only non-random, but ultra-small-world, that comes close to the quasi existence of a single possible hub, consistent with the initial hypothesis. This is evidence of the existence of a network that posts thousands of tweets a day in the Spanish language about Spanish issues from the other side of the world, and that its global structure can be proven to be a single network. The text mining, polarity and sentiment studies result in many everyday tweets, close to each of the groups, as well as few, but intense, highly polarised messages, so as not to be so easily identified.

The modus operandi observed in this study is consistent with strategies for disseminating disinformation as described by the authors considered in this paper (**Wissman**, 2018; **Sorensen**; **Andrews**; **Drennan**, 2017; **Zhao** *et al.*, 2020; **Guess**; **Nyhan**; **Reifler**, 2020). Through a continuous flow of tweets, micro and nano-influencers rely on content published on websites dedicated to satire and the promotion of disinformation, and directly mention influencers (e.g., @IbaiLlanos; @navedelmisterio or @Santi_Abascal) in order to disseminate and promote certain tweets. These tweets address topics that are relevant to each of the clusters identified in this work, while also helping foster a communicative framework aimed at increasing the debate around specific political actors (Spanish government, *Unidas Podemos* and *Vox*), as well as theories and opinions against Covid-19 health policies, and positions against immigration. This strategy, for example, intends to foster a sense of social alarm around the "okupa" movement of squatters occupying houses in Spain. This action is based on accounts associated with the Far-right cluster, which would be acting as the pivot or articulating force of the debate.

Above the limitations inherent to the study presented here, in our analysis of tweets posted in a limited period of time dominated by the Covid-19 "infodemic" our findings do reveal a digital communication scenario where astroturfing is being used in Spanish *Twitter*. This strategy could well have been fostered by organizations dedicated to the promotion of disinformation from outside the country, in places like the Philippines. This could be demonstrating the presence of an organised industry with the capacity to mobilize non-influencer users (cyber-troops), in the terms described by **Bradshaw**, **Bailey** and **Howard** (2021), for the creation and dissemination of a large amount of disinformative and polarised content. Tweets and users in apparent direct opposition create conflict aimed at attracting other users, which end up being used to encourage or discourage certain ideas or actions in Spanish society.

Beyond establishing that astroturfing was indeed used during the Covid-19 pandemic to promote certain issues in Spanish public opinion via *Twitter*, this study is merely a first glance at a research horizon that should be explored more deeply. It is important to establish whether these strategies are used on an *ad hoc* basis (in specific moments or with specific groups) or whether they are used consistently, spreading over time and over different groups in Spain.

This is evidence of the existence of a network that posts thousands of tweets a day in the Spanish language about Spanish issues from the other side of the world, and that its global structure can be proven to be a single network

5. Availability of data and materials

The datasets generated during the current study are available in the *Figshare* repository at:
https://cutt.ly/GTEbWpo

The data concerning the identification of the sending users has been removed due to privacy restrictions of the social network *Twitter*.

6. Notes

1. For this study, we used the stopword library located at:
https://www.ranks.nl/stopwords/spanish

2. For more information, access to:
https://casoaislado.com

3. For more information, access to:
https://www.mediterraneodigital.com

4. The *PSOE* is the party of the current Prime Minister of Spain, Pedro Sánchez.

5. Main political opposition party in Spain, located in the right-wing political ideological spectrum.

6. For more information access to:
https://help.twitter.com/es/rules-and-policies/twitter-rules

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Marcos comunicativos en la estrategia online de los partidos políticos europeos durante la crisis del coronavirus: una mirada poliédrica a la extrema derecha

Communicative frames in the online strategy of European political parties during the coronavirus crisis: a polyhedral look at the far right

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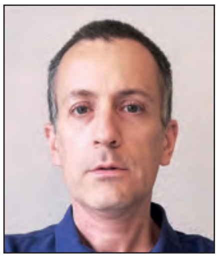

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Resumen

El debate presente en la esfera académica acerca del papel de los partidos de extrema derecha durante la pandemia del coronavirus se extiende a su aspecto comunicativo. Mientras algunos autores sostienen que estos partidos han enfocado sus mensajes desde la perspectiva del miedo, la amenaza inmigrante o la conspiración, de manera poco fructífera, llegando a considerarse incluso como los 'perdedores de la crisis', otros hacen hincapié en su capacidad para construir un sentido de comunidad a través de la resiliencia. La presente investigación tiene por objeto retomar estas discusiones y profundizar en el estudio de los marcos comunicativos de los partidos políticos europeos, con especial atención a la extrema derecha, en aras de obtener conclusiones más matizadas. Para ello, se ha ejecutado una doble metodología a través de la codificación de los *frames* empleados en el total de las 2.757 publicaciones de *Twitter*, de los partidos mayoritarios de gobierno y de los de extrema derecha de Alemania, Francia, España y Polonia, correspondientes a marzo de 2020. Los resultados apuntan a que los partidos estudiados presentan diferencias en sus marcos comunicativos no en función de su adscripción a un espectro ideológico, como podría caber esperar, sino de su papel como poder ejecutivo en el Gobierno o en la oposición de sus respectivas cámaras legislativas.

Palabras clave

Comunicación política; Extrema derecha; Unión Europea; Coronavirus; Covid; Encuadres; *Frames*; Estrategias discursivas; Identidad; Crisis; Comunidades; Fronteras; Inmigración; Resiliencia; Pandemia; Conflictos; Responsabilidad; *Twitter*.

Abstract

The current debate in the academic sphere regarding the role of extreme right-wing parties during the coronavirus pandemic extends to its communicative aspect. While some authors argue that these parties have focused their messages on the perspectives of fear, the threat represented by immigrants, or conspiracies in an unsuccessful way, even considering them to be the "losers of the crisis," others emphasize their ability to build a sense of community through resilience. The present research aims to take up these discussions and delve deeper into the study of the communicative frames of

European political parties, with a particular focus on the far right, to draw more nuanced conclusions. For this purpose, a double methodology has been implemented through the coding of the frames used in a total of 2,757 Twitter posts during the month of March 2020 from the major government and extreme right-wing parties in Germany, France, Spain, and Poland. The results show that the parties studied present differences in their communicative frames, not according to their position on the ideological spectrum, as might be expected, but rather to their role as the executive power in the government or as part of the opposition of their respective legislative chambers.

Keywords

Political communication; Far right; European Union; Coronavirus; Covid-19; Framing; Frames; Discursive strategies; Identity; Crisis; Communities; Borders; Immigration; Resilience; Pandemic; Conflicts; Responsibility; *Twitter*.

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1. Introducción

A lo largo de la segunda quincena del mes de marzo de 2020, la reacción de los gobiernos ante la expansión del coronavirus hizo patente la amenaza que esta nueva pandemia suponía, con la implementación de medidas extraordinarias. La reacción de los partidos de extrema derecha primó en su aspecto comunicativo la tópica culpabilización a los inmigrantes y el fomento del miedo y pánico social, siendo, además, incapaces de movilizar a sus audiencias de manera efectiva con esta aproximación. No obstante, el presente estudio parte de la premisa de que deben realizarse matizaciones respecto a las comunes consideraciones generales acerca de la extrema derecha y su perfil comunicativo, y concretamente, en el marco de la emergencia sanitaria. La victoria del partido de extrema derecha *Ley y Justicia*, por sus iniciales en polaco *PiS*, en las elecciones de dicho país en junio de 2020, induce a pensar que la estrategia comunicativa de algunos partidos de extrema derecha durante el período de emergencia pudo diferir de las presunciones anteriormente expuestas, y por tanto, pudo ser efectiva y obtener rédito en el marco de una crisis global.

Es por ello que este trabajo analiza las coincidencias y/o divergencias en la estrategia de comunicación de los partidos de extrema derecha europeos a través de *Twitter*, incluyendo la preponderancia de *frames* generales aplicados, en comparación con los *frames* aplicados por los partidos en el gobierno en Alemania, Francia, España y Polonia. De igual modo, también se persigue analizar e identificar los *frames* específicos empleados por los partidos en el contexto de la crisis sanitaria de la Covid-19, observando las coincidencias y/o divergencias entre partidos de extrema derecha, resto de partidos y áreas geográficas. Finalmente, se busca cuantificar y comparar el nivel de *engagement* de los diferentes partidos a través de sus actos comunicativos en el entorno digital, hallando las relaciones que se establecen en función del *frame* que aplica en cada caso.

2. Marco teórico y antecedentes

2.1. Comunicación política en la era de la digitalización y las redes sociales

La práctica de la comunicación política ha recurrido de manera tradicional a los medios de comunicación como vehículo para canalizar sus esfuerzos de difusión, no solo en el contexto de procesos electorales, sino de manera más amplia, en tanto que forma de comunicación corporativa. Sin embargo, con el advenimiento del nuevo siglo, y a raíz de la popularización de las nuevas plataformas y la generalización de su uso, la comunicación política

> "no ha podido prescindir de las redes sociales en general [...] como intermediadoras del mensaje" (**Bouza-García**; **Tuñón-Navarro**, 2018, p. 1240),

convirtiéndose en un canal que permite la interacción directa entre usuarios y partidos. El nuevo paradigma de la comunicación ofrece a los políticos la oportunidad de "producir, difundir y controlar la transmisión de sus propios mensajes de forma autónoma y sin la necesidad de pasar por el filtro que hasta ahora interponían los medios [...] tradicionales" (**Marcos-García**, 2018, p. 29).

Así pues, como argumentan **Delfino**, **Beramendi** y **Zubieta** (2019), las redes sociales constituyen un área fecunda para la realización de estudios enmarcados en el ámbito de la investigación social comunicativa dado que acogen gran parte de la actividad humana, incluida la discusión y el debate político. Existe un prolífico compendio de investigaciones cuyo objeto de interés radica en las redes sociales como plataformas para el discurso y la comunicación política (**Soedarsono** *et al.*, 2020; **Campos-Domínguez**, 2017; **Tuñón-Navarro**; **Carral**, 2019; 2021) y las distintas estrategias desplegadas por los partidos en la difusión de sus mensajes, sobre todo en el uso provechoso de la retórica populista (**Bracciale**; **Martella**, 2017; **Van-Kessel**; **Castelein**, 2016; **Moffitt**; **Tormey**, 2014).

De manera específica, y en lo que atañe a la comunicación de partidos, **Bouza-García** y **Tuñón-Navarro** (2018) conceden a *Twitter* un lugar fundamental en el diverso abanico de redes sociales que se presenta en la actualidad, perspectiva que también es compartida por otros autores, como **Chaves-Montero** y **Gadea** (2017). La propia naturaleza de *Twitter* ha sido puesta en relieve por diversos académicos debido a su potencial para promover la comunicación estratégica y diseminación del discurso político y fomentar la implicación de las audiencias (**Jivkova-Semova**; **Requeijo-Rey**; **Padilla-Castillo**, 2017; **Parmelee**; **Bichard**, 2011). De acuerdo con **Larsson** (2015), el éxito inherente a su planteamiento se sustenta sobre la síntesis entre inmediatez y difusión masiva en concomitancia con la capacidad de interacción que permiten las menciones y los hashtags.

A pesar de las ventajosas posibilidades comunicativas que las redes sociales ofrecen de manera potencial a los partidos políticos, cabe matizar que eso no implica que estas se conviertan automáticamente en una suerte de ágora pública. En este sentido, diversos estudios han confirmado la formación de burbujas polarizadas digitales (**Campos-Domínguez**, 2017) y el limitado uso por los partidos de las capacidades de debate y diálogo que permiten las redes sociales, restringiéndose estos a establecer una comunicación unidireccional (**Calvo-Rubio**, 2017). Menos atención ha recibido el interrogante de si estas burbujas se producen en un contexto político nacional, o hasta qué punto se articula una suerte de discurso común o coincidente a nivel transnacional entre partidos insertos en un espectro ideológico similar. La transnacionalización de los discursos de la extrema derecha europea occidental ha sido examinada por **Froio** y **Ganesh** (2018), quienes aluden a las pocas investigaciones existentes en esta línea de estudio.

A este respecto, la presente investigación intenta humildemente contribuir a la bibliografía científica, retomando estas discusiones e interrogándose, entre otras cuestiones, sobre si existen coincidencias o divergencias en cuanto a los *frames* preponderantes aplicados en la comunicación política en *Twitter* por los partidos de extrema derecha europea con respecto a los aplicados por el resto de los partidos, mayormente en el ámbito de la crisis sanitaria. En otras palabras, hasta qué punto se produce polarización a nivel nacional a través de la identificación de encuadres interpretativos similares o diferentes, así como si los mismos coinciden o difieren a escala transnacional en función de la ocupación de una posición equivalente dentro del espectro político.

2.2. Estrategias discursivas en la comunicación de la extrema derecha europea

El estudio de las estrategias comunicativas y discursivas online de partidos políticos goza de gran atención investigadora, y ha encontrado específicamente en la vertiente populista un interés particular. Así como el populismo ha ganado terreno en el escenario político occidental, de igual forma el cuerpo de bibliografía científica acerca de comunicación populista ha experimentado un prolífico incremento de investigaciones paralelas, si bien con cierta dilación en lo que concierne a las plataformas online. El avance en este campo se concretó en estudios como el realizado por **Krämer** (2017), quien se aproximó desde un punto de vista teórico a las funciones y aplicaciones de Internet en lo relativo al populismo de extrema derecha, o el llevado a cabo por **Block** y **Negrine** (2017), quienes expandieron las fronteras epistemológicas de esta área, en su empeño por analizar el estilo de comunicación populista a través de la construcción de la identidad y el estilo retórico.

En el contexto europeo, autores como **Vallespín** y **Martínez-Bascuñán** (2017) han manifestado que los populismos obran de manera destacada en su uso de las redes sociales, logrando la centralidad de su agenda discursiva en el debate político. La lógica que explica su triunfo subyace tras la dinámica oposicional entre élites y resto de personas, tal y como explica **Chadwick** (2013). Para comprender este fenómeno, es necesario recurrir al concepto de 'estructura online de oportunidad', por el cual se entiende que los factores inherentes al sistema de medios online son los que posibilitan, en términos estructurales, el fomento de la comunicación populista. Entendiendo que la idea de 'pueblo' es el elemento esencial de las ideologías populistas y que los líderes de estos movimientos se erigen como representantes y/o defensores del mismo, se explica que estos busquen

"una conexión rápida, directa y sin mediación con la gente" (**Engesser** *et al.*, 2017, p. 1280).

De esta manera, justifican también que Internet y, en concreto, las redes sociales, se presentan como la plataforma perfecta para difundir sus mensajes sin interferencia por parte de las élites, entre las cuales se encuentran los medios que actúan como *gatekeepers*. En esencia, el sistema de medios online proporciona al populismo conexión directa no mediada con ese 'pueblo' al que alude constantemente en su discurso.

No obstante, cabe hacer hincapié en la frecuente confusión, o indiferenciación, entre 'populismo' y 'extrema derecha', dando por sentada la asimilación o equivalencia entre ambos términos, seguramente porque aparecen correlacionados con frecuencia. El corpus teórico politológico acerca del populismo es fecundo. Aunque la apelación al 'pueblo' sea característica y definitoria del populismo, esta mención puede adoptar un significado distinto en función de la ideología y el contexto en el que se inserte. Mientras el populismo de extrema derecha tiende a definir al pueblo como una nación, el de izquierdas lo concibe como una clase. De igual forma, varía sustancialmente el concepto de élite, pues mientras el populismo de extrema derecha

> "puede inclinarse a atacar las instituciones supranacionales, los medios de comunicación y los tribunales, el de izquierdas denuncia a las élites económicas y religiosas" (**Engesser**; **Fawzi**; **Larsson**, 2017, p. 1282).

Por lo tanto, existen distinciones esenciales entre populismos en función de su adscripción a ideologías de izquierda o derecha. **Laclau** (2005) entiende el populismo no como una ideología, sino como una estrategia comunicativa basada en peculiaridades de corte lingüístico, y que por tanto puede ser empleada por distintas corrientes de pensamiento.

Así se comprende por qué 'populismo' y 'extrema derecha' se utilizan como términos equivalentes, ya que a menudo confluyen al darse uno como estilo de comunicación utilizado por el otro, en tanto que espectro político. De hecho, **Ahmed** y **Pisoiu** (2020) explican la convergencia de marcos comunicativos entre partidos que se definen como populistas y otros que se consideran de extrema derecha.

Dado que el término 'populismo' puede inducir a error, y a pesar de las posibles coincidencias y superposiciones entre extrema derecha y populismo, cabe aclarar que el foco del presente trabajo radica en la extrema derecha, con independencia de que pueda recurrir puntual o frecuentemente a una comunicación de corte populista.

En este sentido, nos remitimos a la definición de **Ignazi** (1992) para conceptualizar la extrema derecha como los partidos que son ubicados tanto por el votante medio como por los estudiosos y expertos en la parte derecha del espectro ideológico, y de su carácter extremo, distinguible de la derecha tradicional por su actitud hacia el sistema, con distintos grados y matices de antiparlamentarismo, antipluralismo y antipartidismo. El hecho de ser partidos antisistema, característica que puede variar en alcance y contenido (**Minkenberg**, 1994) es precisamente el rasgo definitorio de este espectro, de acuerdo a **Acha-Ugarte** (1997), al margen de la difícil clasificación terminológica que presentan otras formaciones como los partidos de derecha extrema radical (**Minkenberg**, 1997) o los partidos xenófobos (**Van-der-Brug**; **Fennema**; **Tillie**, 2003), lo cual lleva a **Mudde** (2007) a la amplia definición de 'partidos populistas de derecha radical'.

Precisamente, uno de los usos más recurrentes de la extrema derecha y que también puede entenderse como característico del populismo es la llamada a la 'otredad' (**Lazaridis**; **Tsagkroni**, 2015). En el contexto de policrisis europea que viene teniendo lugar en los últimos años, sucediéndose las crisis del Brexit (**Tuñón-Navarro**, 2021), del Euro, de los refugiados o la pandémica, la categoría de 'otredad' ha sido motivo de apelación por parte de la extrema derecha, así como catalizador de su crecimiento y proliferación en Europa (**Carral**; **Tuñón-Navarro**, 2020). En su estudio sobre la transnacionalización del discurso de extrema derecha europea en *Twitter*, **Froio** y **Ganesh** (2018) identifican la anti-inmigración, junto con las interpretaciones nativistas de la economía, como las temáticas comunes que promueven audiencias transnacionales entre estos partidos. Por su parte, **Kaunert, De-Deus-Pereira** y **Edwards** (2020) argumentan que los miedos y ansiedades respecto a la seguridad ontológica en relación a la migración y crisis de los refugiados han conducido a una crisis de identidad europea, favoreciendo la reemergencia de la extrema derecha.

En este sentido, el hilo conductor de esta investigación se interroga acerca de los marcos comunicativos de los partidos políticos, en un momento en el que las élites políticas han tenido que tomar medidas excepcionales que recortan las libertades y derechos fundamentales, y cuya labor ejecutiva ha cargado con el peso de reaccionar a una crisis global.

2.3. La crisis del coronavirus y las narrativas enmarcadas por la extrema derecha

Tal y como explica **Gerlach** (2016), la comunicación mediática durante una crisis sanitaria sigue un patrón más o menos estandarizado. **Wald** (2008) advierte acerca de los peligros del fenómeno que denomina como 'narrativa pandémica', por su capacidad para ejercer influencia sobre la audiencia; sobre todo en lo que respecta al miedo y la ansiedad como respuestas emocionales provocadas por el impacto de los medios. En el estudio publicado por **Ogbodo** *et al.* (2020) en relación a la actual crisis del coronavirus, los autores concluyeron que existe un patrón de marcos comunicativos prácticamente idénticos por parte de los conglomerados mediáticos, destacando la promoción del miedo y la perspectiva humana en el contenido de las informaciones.

En el contexto de la Covid-19, también se han publicado investigaciones acerca de marcos de comunicación en *Twitter*, como el estudio llevado a cabo por **Wicke** y **Bolognesi** (2020), en el que identifican un *frame* preponderante de guerra contra la amenaza. En ese sentido, tanto en la comunicación política (**Castillo-Espacia**; **Fernández-Souto**; **Puentes-Rivera**, 2020; o **Palau-Sampio**; **Carratalá**, 2022) como en el estudio de medios tradicionales u online (**Hirneisen**, 2020; **Wicke**; **Bolognesi**, 2020; **Ogbodo** *et al.*, 2020), la investigación académica ha centrado su interés.

En relación a comunicación política, destaca la investigación de **McNeil-Willson** (2020), quien se centra en la red social *Telegram* para investigar los *frames* de crisis utilizados por la extrema derecha en el contexto de la Covid-19, entre los que se encuentran 'migración', 'globalización', 'libertad', 'resiliencia', 'gobernanza' y 'conspiración'. De acuerdo a sus conclusiones, estos grupos

> "enfatizaron [...] una actividad diseñada para desarrollar resiliencia en la comunidad y, en contraste a los comentarios iniciales de los analistas, las teorías de la conspiración y prácticas de desinformación fueron generalmente no utilizadas" (**McNeil-Willson**, 2020, p. 1).

El propio **McNeil-Willson** (2020) hace un llamamiento a la investigación sobre las tácticas de la extrema derecha que buscan respaldo en la comunidad, para poder obtener una panorámica más compleja de cómo estos grupos operan en el mundo actual.

Por el contrario, otras investigaciones centradas en la movilización de la extrema derecha trataron de reforzar creencias preexistentes en torno a la comunicación de estos grupos, como es el caso de **Vieten** (2020), quien focaliza en aspectos como 'pánico moral', 'populismo pandémico digital' y la generación de una idea de 'ciclo de crisis' a partir de ansiedades fabricadas, íntimamente relacionadas con racismo y xenofobia. En este sentido, diferentes medios han recogido la reacción de la extrema derecha a través de artículos y reportajes que retoman este punto de vista, contrario, o como poco, limitado, respecto a las conclusiones extraídas por McNeil-Willson. DeCook, por ejemplo, sostiene que se reiteran

> "los miedos y ansiedades típicas de la extrema derecha en torno a la globalización, el multiculturalismo y el encubrimiento gubernamental" (**DeCook**, 2020),

y alude a la sinofobia y los repetidos ataques verbales a la izquierda e inmigrantes en general, acentuando la impotencia y desamparo del 'pueblo' "frente algo que no pueden ver" (**DeCook**, 2020).

En la misma línea, Cristina Ariza, analista del *Instituto Tony Blair para el Cambio Global*, afirma que se ha producido un pico en el discurso del odio, y que los grupos de extrema derecha

> "han usado la Covid-19 como una oportunidad para promover el sentimiento antiglobalista y medidas proteccionistas como el cierre de fronteras" (**Ariza**, 2020).

Esta misma óptica es compartida por **Comerford** y **Davey** (2020), quienes observan que la extrema derecha ha sugerido que las minorías étnicas han extendido el virus como un ataque al occidentalismo blanco, y obtenido beneficio de la crisis para cometer altercados y crímenes.

Quent (2020), con una visión similar, identifica también en el discurso de la extrema derecha una crítica continua a la Unión Europea, un poderoso tono emocional, y el cinismo de afirmar que nadie hubiera muerto con las fronteras cerradas. Tampoco duda en reconocer a la extrema derecha como 'los perdedores de la crisis'; no obstante, tras lo discutido en líneas precedentes, se debería prestar una prudente atención para desentrañar de manera más compleja su estrategia comunicativa e investigar las posibles aristas que escapan a tal generalización. De otra parte, Wondreys y Mudde entienden que, si bien se ha afirmado que

> "la pandemia ha expuesto la incompetencia de los partidos de extrema derecha [...], esto se basa en la generalización de uno o dos casos individuales [...] que son la excepción a la regla" (**Wondreys**; **Mudde**, 2020, p. 1),

y por tanto opinan que cualquier conclusión dogmática o axiomática es prematura.

La práctica totalidad de las investigaciones relativas a las narrativas de los partidos políticos en relación a la crisis del coronavirus se aproxima a partir del estudio de *frames* o marcos. Esta perspectiva consiste en analizar la construcción discursiva de los problemas en la esfera pública (**Gamson**, 1992). Resulta llamativo que, tal y como sostiene **Lakoff** (2004), desde el punto de vista comunicativo no importa tanto el contenido del marco como la utilización del marco en sí, pues, aunque se active dicho marco para contrarrestarlo, combatirlo o discutirlo, la propia activación del mismo lo pone en circulación. Un ejemplo de ello es la investigación realizada por **Castelli-Gattinara** y **Zamponi** (2020), en la que, estudiando la politización y construcción epistemológica de crisis europeas, los autores concluyen que ambos lados de un conflicto, aun divergiendo en postura e intereses, comparten la definición del problema como un fallo de política europea. Es decir, enmarcan el problema bajo un mismo *frame*, al igual que hace **Ríos-Rodríguez** (2020) en este caso en el marco español, con la austeridad.

En sociología interpretativa, se denomina encuadre a los esquemas de interpretación a través de los cuales las personas tratan de comprender la realidad y los eventos sociales; aluden, en esencia, a "procesos intersubjetivos de definición de la situación" (**Sádaba-Garraza**, 2001, p. 145). **Entman** (1993) entiende el proceso de *framing* en tanto que selección de ciertos aspectos de la realidad, de forma similar a **Gitlin** (1980) e **Igartua**, **Muñiz** y **Cheng** (2005), quienes aluden al proceso de énfasis o saliencia, por el que se enfoca un determinado evento. La definición de Tankard es ilustrativa por su claridad y concisión:

> "[el encuadre] esencialmente implica selección y saliencia. Encuadrar es seleccionar algunos aspectos de la realidad percibida y hacerlos más salientes [...] para promover una definición particular de un problema, una interpretación causal, evaluación moral y/o una recomendación de tratamiento" (**Entman**, 1993, p. 52).

Además de completar y expandir el corpus teórico de las investigaciones del área, el presente trabajo persigue una mirada poliédrica, como bien indica su título, a un conjunto representativo de la comunidad de naciones que es Europa.

Como indican **Scherpereel**, **Wohlgemuth** y **Schmelzinger** (2016), el uso de las redes sociales diverge entre países y la práctica de la comunicación institucional varía según el contexto. En este sentido, es de radical importancia e interés absoluto para esta investigación el reflejo de una verdadera aproximación paneuropea (**Tuñón-Navarro**; **Bouza-García**, 2021).

No obstante lo anterior y aunque esta investigación se circunscriba al ámbito de la Unión Europea y su valor añadido pase por el análisis de la comunicación de los partidos de extrema derecha, es necesario apuntar que toda una serie de recientes investigaciones que:

1) han incidido en las estrategias de comunicación digital de partidos tradicionales de perfil democrático y socioliberal en el marco de la crisis pandémica en España (**Castillo-Espacia**; **Fernández-Souto**; **Puentes-Rivera**, 2020) a escala trasnacional europea (**Palau-Sampio**; **Carratalá**, 2022) o incluso fuera de la propia Unión Europea (**Bélanger**; **Lavenex**, 2021); o bien

2) pusieron también de manifiesto la utilización de redes sociales como herramienta decisiva de comunicación del trumpismo (**Rodríguez-Andrés**, 2018; **Cabezuelo-Lorenzo**; **Manfredi**, 2019; **Ott**; **Dickinson**, 2019; **Wells** *et al.*, 2020) en un marco de clara polarización (**Pérez-Curiel**; **Domínguez-García**, 2021) y diseminación de estrategias desinformativas, también en el contexto de los EUA.

3. Objetivos, hipótesis y métodos de investigación

3.1. Objetivos

En base a lo anteriormente expuesto, la presente investigación pretende estudiar las coincidencias y/o divergencias en la estrategia de comunicación de los partidos de extrema derecha europeos a través de *Twitter*, incluyendo la preponderancia de *frames* generales aplicados, así como también comparar los *frames* aplicados por el resto de partidos. De igual modo, también se persigue analizar e identificar los *frames* específicos empleados por los partidos en el contexto de la crisis sanitaria de la Covid-19, observando las coincidencias y/o divergencias entre partidos de extrema derecha, resto de partidos y áreas geográficas. Finalmente, se busca cuantificar y comparar el nivel de *engagement* de los diferentes partidos a través de sus actos comunicativos en el entorno digital, hallando las relaciones que se establecen en función del *frame* que aplica en cada caso.

3.2. Hipótesis

En base a los objetivos descritos, se han construidos las siguientes hipótesis de investigación:

> H1: Los partidos políticos intensificaron su frecuencia de publicación de tweets en el desarrollo temporal de la emergencia sanitaria.
>
> H2: Los partidos de extrema derecha europeos privilegiaron en su comunicación el *frame* general de esperanza frente a los de conflicto y atribución de responsabilidad.
>
> H3: El encuadre de miedo frente a la pandemia no es únicamente característico de los partidos de extrema derecha.
>
> H4: Los partidos no adscritos a la extrema derecha priorizaron la comunicación de información de servicio sobre la construcción de un sentimiento de unidad y comunidad.
>
> H5: Los tweets con mayor *engagement* de los partidos de extrema derecha europeos están relacionados con *frames* de resiliencia y unidad nacional frente a la crisis.

3.3. Muestra y métodos

La muestra se ha compuesto a partir de los tweets de autoría propia publicados por la cuenta oficial del principal partido de extrema derecha y el primer partido en el gobierno, o en su defecto en la cámara legislativa respectiva, de cada uno de los países seleccionados. En este caso, se han considerado como objeto de estudio España, Alemania, Francia y Polonia. La selección de estos países se ha realizado teniendo en cuenta la representatividad de cada nación de acuerdo a la clasificación del modelo de medios sugerido por **Hallin** y **Mancini** (2004), figurando España como caso de modelo polarizado pluralista de Europa del Sur y Alemania del modelo democrático corporativo de Europa Central y del Norte. Dada la reciente salida de Reino Unido de la Unión Europea, se ha optado por reemplazar la categoría del modelo liberal típicamente norteamericano y de las islas británicas por el estudio de Francia, al que podría considerarse un modelo híbrido de los dos de la Europa continental anteriormente citados. Finalmente, dado que la clasificación de Hallin y Mancini no tiene en cuenta a Europa del Este, se ha optado por incluir a Polonia como representante de dicha área geográfica, tras evaluar su pertinencia para poder realizar una investigación con verdadera pluralidad y representatividad dentro del contexto europeo.

Aun teniendo en cuenta que el modelo de **Hallin** y **Mancini** (2004) atiende a una clasificación del sistema de medios, si bien estos autores se referían en su clasificación a "actores mediáticos", el propio título de su obra "*Sistemas mediáticos comparados. Tres modelos de relación entre los medios de comunicación y la política*" es ilustrativo respecto a la íntima relación entre sistemas mediáticos y políticos. Ambos conforman una serie de características particulares que dan lugar a una serie de contexto comunicativo idiosincrático y particular; razón por la cual consideramos pertinente testar la vigencia de este modelo para abordar un análisis comparado que implica la vertiente política en un contexto comunicativo en un escenario transnacional europeo.

En el caso de España, los partidos seleccionados han sido *Vox* y el *Partido Socialista Obrero Español*, de aquí en adelante *PSOE*; en el caso alemán, *Alternativa para Alemania* (*AfD*) y la *Unión Demócrata Cristiana de Alemania* (*CDU*); para Francia, *En Marche* (*EM*) y *Rassemblement National* (*RN*), y finalmente en Polonia, donde la excepción consiste en que el primer partido en la cámara legislativa y al que se adscribe el Presidente del Gobierno es el de extrema derecha *Ley y Justicia* (*PiS*), se ha elegido además de este al socio liberal *Plataforma Cívica* (*PO*), segundo partido del país.

Para la delimitación del periodo temporal se consideraron como fechas clave los días comprendidos entre el 14 de marzo y el 20 de marzo de 2020, semana en la que sucesivamente se decretó el Estado de Alarma en España, el Estado de Emergencia Sanitaria en Francia y el Estado de Epidemia en Polonia, siendo día clave el 16 de marzo, fecha en la que los dirigentes del G7 celebraron una videoconferencia para coordinar la respuesta mundial al brote de Covid-19 y el Presidente del *Consejo Europeo* Charles Michel y la presidenta de la UE, Úrsula Von der Leyen instaron a restringir los viajes no esenciales a la UE. Por lo tanto, se consideró estudiar las dos semanas inmediatamente anteriores y posteriores, para evaluar la comunicación de los diferentes partidos políticos ante la escalada de la crisis y en respuesta a las primeras medidas que se implementaban.

Finalmente, la muestra ha quedado compuesta por un total de 2.757 tweets, publicados en el período comprendido entre el 1 y el 31 de marzo de 2020, y tienen la distribución mostrada en la tabla 1.

Tabla 1. Distribución de tweets por cada partido

PSOE	***Vox***	***EM***	***RN***	***CDU***	***AfD***	***PO***	***PiS***
1017	176	116	32	257	127	451	581

Tras recuperar los tweets a partir de la aplicación de búsqueda avanzada que incorpora la propia red *Twitter*, limitando los campos al período temporal y cuenta de partido pertinente, se generó una matriz de datos con la codificación correspondiente a las categorías anteriormente explicadas. La recogida de datos se complementó con otras aplicaciones avaladas por la comunidad científica, como *Twlets* y la API de *Twitter* para investigadores. El procesamiento y filtrado de datos, correlaciones y elaboración de gráficos se llevó a cabo con *Microsoft Excel*.

Con objeto de abordar las preguntas e hipótesis de investigación, se ha llevado a cabo una metodología basada en el análisis de *framing*. En la revisión de bibliografía para la concepción de la propuesta metodológica se ha identificado una distinción entre los "*issue-specific frames*", que abordan tópicos específicos, y los "*generic frames*", ampliamente aplicables a un rango de temas diferentes (**De-Vreese**; **Peter**; **Semetko**, 2001). Debido a ello, en el presente estudio se propone una doble metodología con un análisis deductivo de *frame*s genéricos, e inductivo para los identificados como específicos en relación a la crisis de la Covid-19, estableciendo los encuadres mediante procedimientos cualitativos y ofreciendo parámetros cuantificables en términos de frecuencia, en la línea de otras investigaciones anteriores (**Miller**; **Reichert**, 2001; **Igartua**; **Muñiz**; **Cheng**, 2005). La codificación de los *frames* (que no eran mutuamente excluyentes) efectuada ha sido de tipo manual, ya que, frente a análisis computacionales automatizados, permite la comprensión de la muestra más allá de definiciones literales.

Para analizar el nivel de *engagement* se han cuantificado las variables 'número de retweets', 'número de me gusta' y 'número de tweets citados', añadiendo las categorías a la ficha de análisis tomando inspiración de investigaciones previas como las de **Campos-Domínguez** y **García-Orosa**, (2018) y **Calvo-Rubio** (2017), entre otras.

En lo relativo a *frames* generales, la sedimentación de la práctica realizada en investigación social sobre *framing* concurre en el celebrado estudio de **Semetko** y **Valkenburg-Valkenburg** (2000) en el que los autores identifican cinco *frames*, a saber:

- conflicto,
- interés humano,
- consecuencias económicas,
- moralidad, y
- responsabilidad.

Un reciente estudio de análisis de contenido sobre la crisis de la Covid-19 en los medios globales añade a las categorías mencionadas las de

- racialización,
- miedo, y
- esperanza (**Ogbodo** *et al.*, 2020).

Estas son, por tanto, las categorías de *frames* generales que se tuvieron en cuenta para el análisis cuantitativo deductivo.

En lo que concierne al análisis inductivo de *frames* específicos, al igual que para los *frames* generales, la codificación se completó en tres fases, de acuerdo con la propuesta de **Bardin** (2002) de pre-análisis, estudio del material y análisis e interpretación de los resultados. El pre-análisis para los *frames* específicos implicó la selección de las categorías de codificación, con la definición de temas inductivamente.

En primera instancia se realizó un análisis exploratorio de la muestra a partir de un muestreo aleatorio reduccionista del 15% del total de tweets, previa segmentación de por partidos, para identificar las categorías, que finalmente por aproximación temática se resumieron en:

- ‘responsabilidad ciudadana’
- ‘amenaza inmigrantes/fronteras/globalización’
- ‘fallo de gobernanza supranacional’
- ‘fallo de gobernanza nacional’
- ‘abuso de poder político’
- ‘patriotismo y unidad’
- ‘resiliencia y ánimo’
- ‘información de servicio’
- ‘lucha contra la desinformación’
- ‘conspiración’, y
- ‘crítica a los medios’.

La revisión del análisis de la muestra fue llevada a cabo por dos investigadores, una vez la configuración de *frames* específicos fue establecida, criticada y modificada, en caso necesario.

La segunda fase, centrada en la lectura de las publicaciones, consistió en la codificación de las mismas. Dos investigadores tomaron parte en dicho proceso de forma paralela, identificando en cada caso tanto los *frames* generales como específicos. Una vez finalizada la codificación, se organizó una sesión de contraste para alcanzar consenso en los casos en los que hubo discrepancias. En casos puntuales en los que no se alcanzó tal consenso, se realizó una consulta a un tercer investigador. Para la tercera fase, de análisis e interpretación de los resultados, se recurrió a un enfoque cuantitativo para el examen de las categorías codificadas.

4. Resultados

4.1. Evolución de la frecuencia de publicaciones

El análisis de los datos muestra distintas tendencias en la frecuencia de publicación de tweets de los partidos políticos estudiados. Por lo general, se aprecia un incremento de acciones comunicativas (figura 1A), si bien la evolución de cada partido responde a una dinámica diferente. La dependencia de esta variable no estriba en el eje político, sino en razón del área geográfica en el que se insertan. De este modo, al desagregar por países, España y Polonia, por un lado, y Francia y Alemania, por otro, sí se puede observar una dinámica de comunicación notoriamente diferente (figura 1B). Mientras los partidos españoles, *PSOE* y *Vox*, y los polacos *PiS* y *PO* presentan una línea de tendencia con crecimiento positivo entre el inicio y el final del período de estudio, con valores máximos y mínimos en su desarrollo temporal, los partidos franceses y alemanes apenas muestran pendiente en la línea de tendencia.

Se puede apreciar que los partidos más prolíficos en su suma total de publicaciones fueron *PSOE* (1.017) y *PiS* (581), ambos en el gobierno de sus respectivos países, siendo el primero socialdemócrata y el segundo de extrema derecha. No obstante, no se observa correlación en función de si el partido figura o no en el poder ejecutivo de su respectivo país, pues tanto *EM* (116) como *CDU* (257) presentan una frecuencia de publicación moderada.

4.2. Análisis de *frames* generales

El empleo de *frames* generales por parte de los partidos de extrema derecha de la muestra presenta divergencias sustanciales (figura 2A). *Vox* (27% de los tweets) y *RN* (32%) coinciden en que prácticamente un tercio del total de sus tweets alberga el marco de la ‘responsabilidad’. *Vox* focaliza la responsabilidad de la pandemia en el gobierno nacional, principalmente, y en múltiples ocasiones utiliza un enfoque combativo de ‘conflicto’ (32% de los tweets). El *frame* de conflicto también está muy presente en la comunicación de *RN*, con un 19% de tweets enmarcados en esta categoría, y sobre todo en el discurso de *AfD*, partido que emplea este marco en el 53% de sus publicaciones. Sin embargo, *AfD* difiere drásticamente respecto al resto de partidos de extrema derecha en su enfoque de ‘responsabilidad’, el cual cuenta solo con un 5% de representación en la muestra de tweets. En su lugar prioriza el marco del ‘miedo’ (16%), especulando acerca de posibles problemas relacionados con el suministro de energía y comida, liberación de presos, disturbios y disparos contra personas pertenecientes a clases pudientes, incluyendo la mención de inmigrantes y refugiados, que tienen su propia representación en la categoría de racialización, que enmarca un 9% de los tweets. Una dinámica similar tiene lugar en el discurso de *RN*, donde se aprecian coincidencias con respecto a *AfD* en la cuantificación de los enfoques de ‘miedo’(18%) y ‘racialización’(10%), no así en el caso de *Vox*, donde ambas tienen una presencia significativamente menor (3% y 5%, respectivamente).

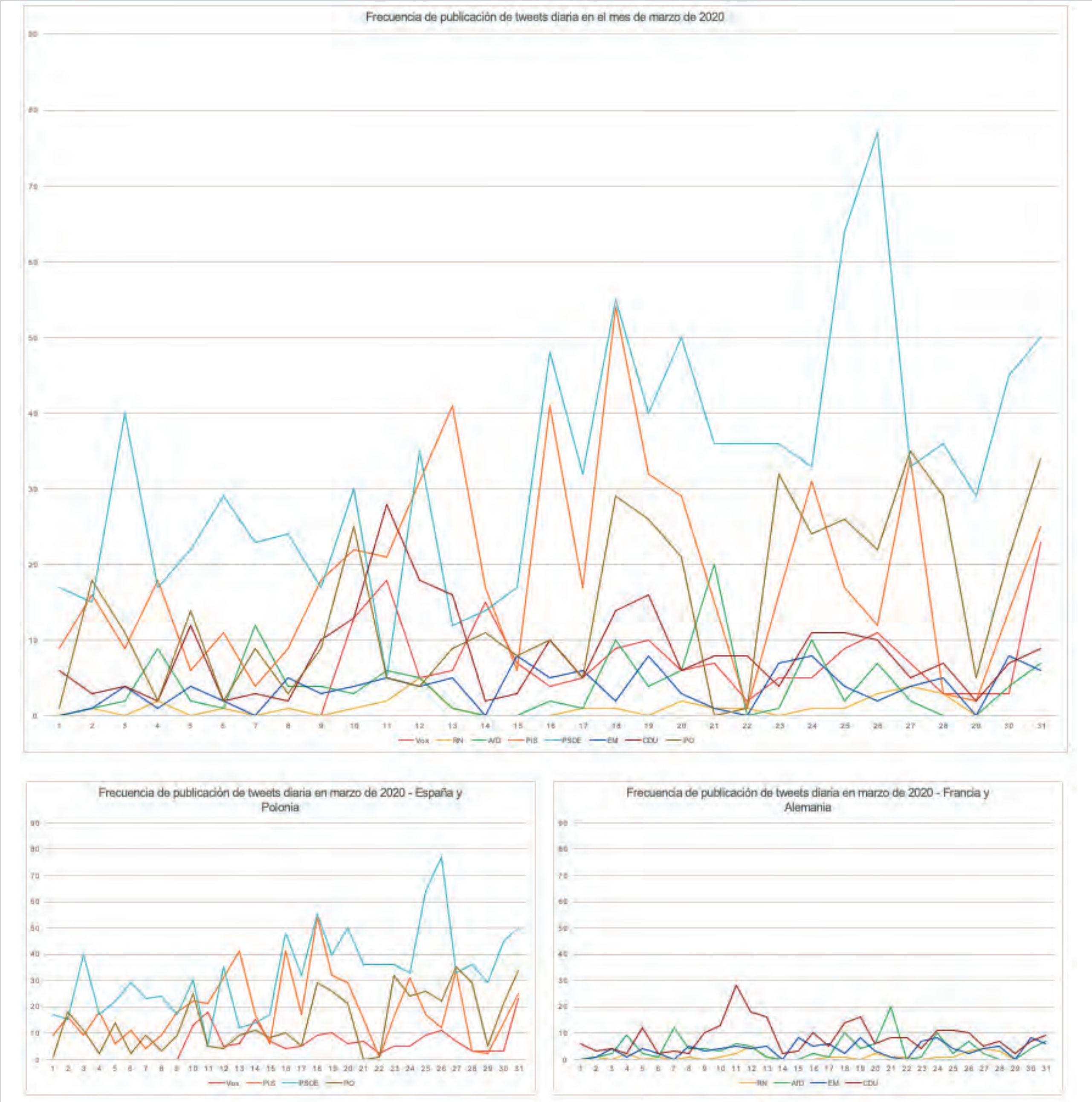

Figura 1A (arriba). Frecuencia de publicación de tweets diaria en el mes de marzo de 2020.
Figura 1B (abajo). Frecuencia de publicación de tweets diaria en marzo de 2020, desagregada por área.

El partido que mayores diferencias presenta en la utilización de marcos respecto al resto de extrema derecha es *PiS*, con un encuadre conflictivo muy minoritario, de tan solo un 2% de los tweets, y una mayor presencia del enfoque moral (17%), el de interés humano (15%) y el esperanzador (22%), que distan de las cifras de sus coaligados en el espectro ideológico, prevaleciendo la transmisión de tranquilidad frente al problema. La moralidad se conjuga con el *frame* de responsabilidad (18%), equiparados en porcentaje de utilización, debido a la fuerte presencia de una demanda de implicación al estamento político y la ciudadanía. El marco del miedo (13%), que muestra cotas similares a las alcanzadas por *RN* y *AfD*, se imbrica con los anteriores produciendo un nuevo significado, que nada tiene que ver con el referente a un aumento de la criminalidad, disturbios o carestía, sino con apelar a la conciencia ciudadana para cumplir su parte de responsabilidad y así impedir el avance de la pandemia.

Seleccionando los tweets con una tasa de *engagement* superior respecto al promedio del partido, en el gráfico adjunto se puede observar que las audiencias premian con mayor implicación los contenidos cuyo marco coincide con el prevalente en la comunicación del partido (figura 2B). Si *Vox* y *RN* privilegiaban los marcos de responsabilidad y conflicto, estos son los enfoques que predominan en los tweets que cuentan con mayor tasa de *engagement* (28% y 44%, y 36% y 27%, respectivamente). Lo mismo sucede con *AfD*, cuya audiencia muestra mayor implicación con los *frames* de conflicto (32%) y miedo (23%), seguidos por racialización (18%), y en mucha menor medida, responsabilidad (9%). De igual manera, la audiencia de *PiS* concede mayor *engagement* a los tweets que tienen por marco el interés humano (25%), la moralidad (19%), la responsabilidad (19%) y la esperanza (13%).

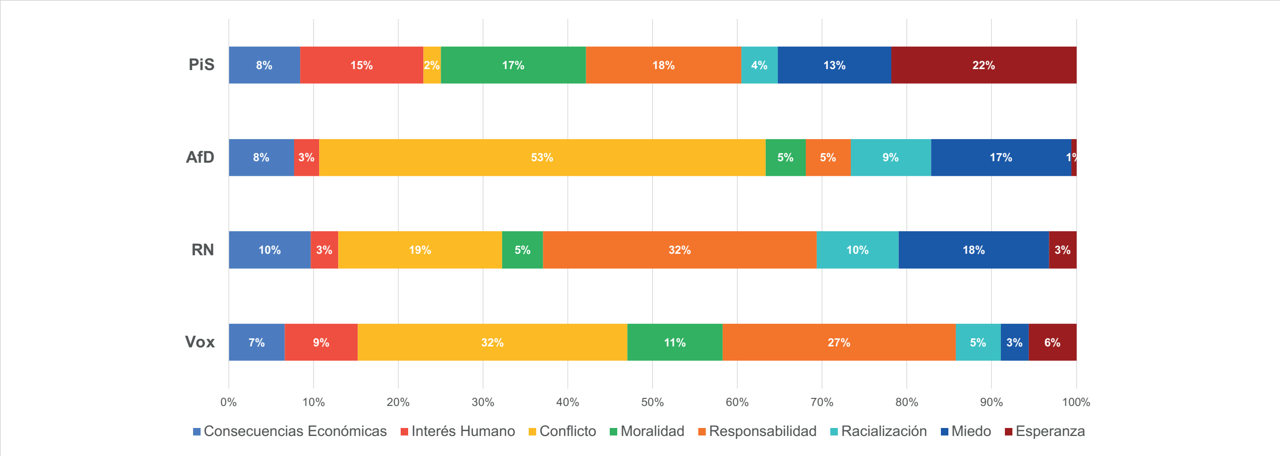

Figura 2A. Distribución de frames generales por partido político (extrema derecha).

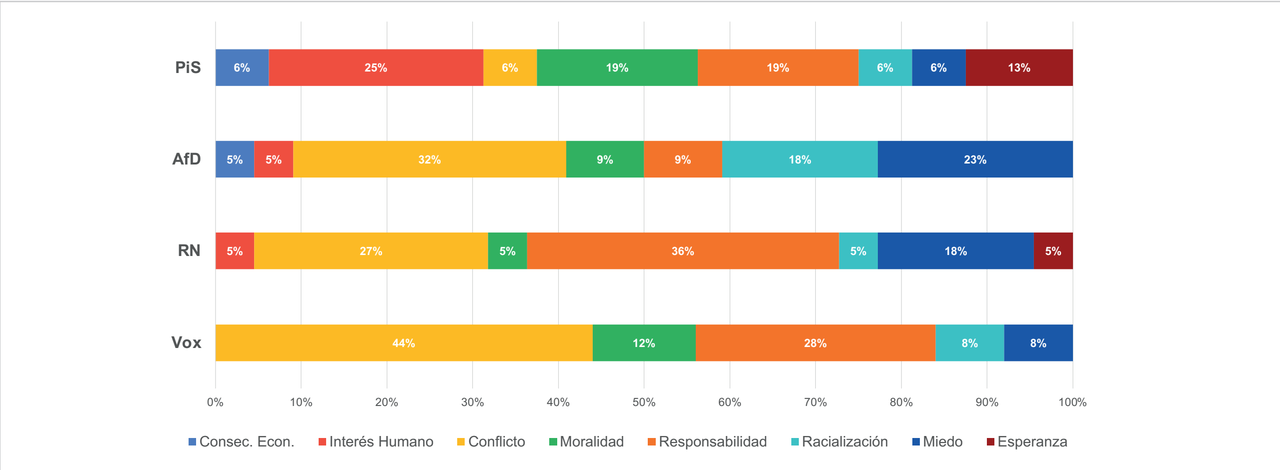

Figura 2B. Prevalencia de *frames* generales según engagement (extrema derecha).

De otra parte y por lo que responde al resto de los partidos, excluidos los de extrema derecha, tanto el *PSOE*, como *EM* y *CDU* muestran coincidencias significativas en su empleo y preponderancia de marcos comunicativos (figura 3A). Los tres destacan el *frame* de esperanza (24%, 19% y 16%) y moralidad (24%, 31% y 29%), seguidos por el interés humano (18%, 16% y 18%) y la responsabilidad (12%, 16% y 17%), teniendo los marcos de miedo y conflicto una presencia menor (entre el 5% y 7%). Por el contrario, respecto a *PO*, aunque se observa una utilización del *frame* moral de similar magnitud a los tres anteriores (29%), el marco de conflicto cobra mayor relevancia (17%), siendo el tercero más empleado, desplazando el interés humano a un segundo plano (9%) y reduciendo la esperanza a una presencia exigua (3%). Por el contrario, cabe notar que el cuarto *frame* más utilizado, empatando con el de miedo, es el de racialización, que aparece en el 9% de los tweets. Este dato, si bien no alcanza una cifra prominente, destaca frente a la escasa o nula presencia en el resto de partidos de su espectro ideológico, y se aproxima a las cifras del eje de extrema derecha, siendo muy similar a los de *AfD* y *RN* (9 y 10%, respectivamente) y prácticamente doblando el porcentaje de *Vox* (5%) y de su principal adversario político, *PiS* (4%). Por otro lado, el *frame* del miedo, presente en los cuatro partidos socioliberales, alcanza en *PO* el porcentaje más alto (9%), por debajo de la utilización de *RN*, *AfD* y *PiS*, aunque superando a *Vox* (3%).

En cuanto a los marcos más aplaudidos por la audiencia, en el caso del *PSOE*, la gráfica muestra mayor implicación con los tweets enmarcados por interés humano (33%), esperanza (19%) y moralidad (24%); en el de *EM*, con moralidad (36%), consecuencias económicas (22%), y responsabilidad (21%); la audiencia de la *CDU* aplaude el marco de la moralidad (37%), el interés humano (20%) y la responsabilidad (24%), mientras que los marcos que cuentan con más *engagement* por parte de la audiencia de *PO* son moralidad (24%), responsabilidad (21%) y racialización (19%), siendo este último significativo, al no ser aplaudido por la audiencia del resto de partidos (figura 3B).

A diferencia de lo observado en los partidos de extrema derecha, en este caso no se encuentra una analogía tan clara entre los marcos premiados con mayor implicación por parte de las audiencia y el contenido prevalente en la comunicación del partido, más allá de la coincidencia en la comunicación de *PO* y sus audiencias en el marco de la racialización como tercer *frame* más privilegiado, y en la importancia central del marco de la moralidad tanto en los cuatro partidos como en sus audiencias, especialmente para *EM* y *CDU*.

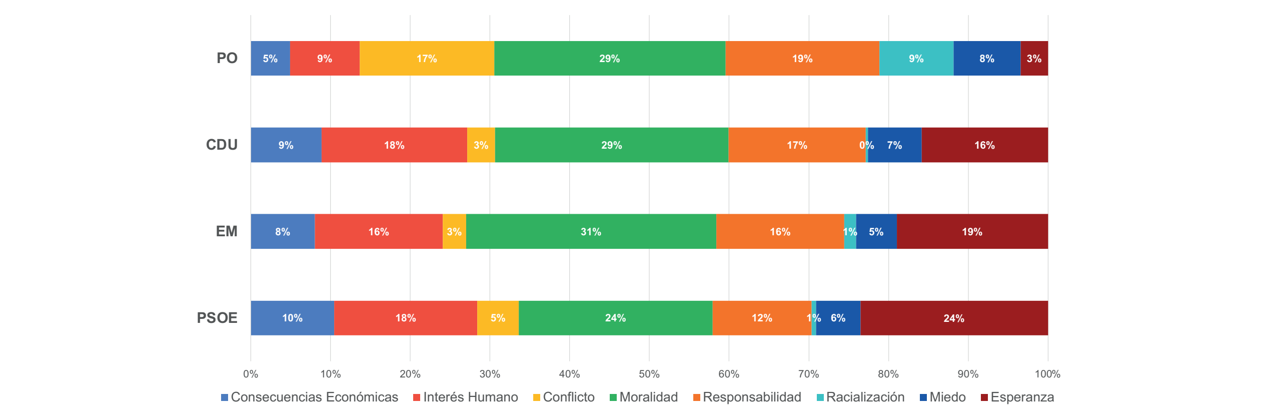

Figura 3A. Distribución de *frames* generales por partido político (resto de partidos).

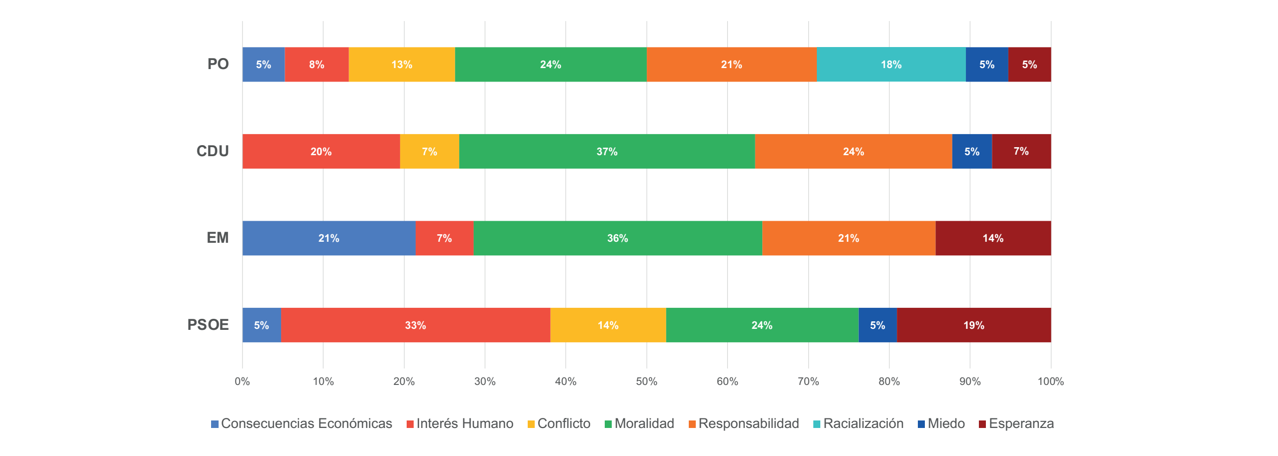

Figura 3B. Prevalencia de *frames* generales según engagement (resto de partidos).

4.3. Análisis de *frames* específicos relativos a la crisis sanitaria

En lo que respecta a *frames* específicos, atendiendo a la metodología defendida por **De-Vreese** *et al.* (2001), en relación a la circunstancia particular de la crisis sanitaria, los partidos de extrema derecha de la muestra privilegian distintos marcos. Pueden hallarse diferencias significativas, revelando en términos comparativos la saliencia de uno u otro marco (figura 4A). *Vox* enmarca la mayor parte de sus tweets relacionados con el coronavirus como un fallo de gobernanza nacional (45%), cobrando especial relevancia el patriotismo y la unidad nacional (31%). *AfD*, en cambio, enfoca su comunicación sobre el coronavirus como una amenaza externa relacionada con los inmigrantes, las fronteras y la globalización (11%), aunque también tiene relevancia la óptica de fallo de gobernanza nacional (7%) y la crítica a los medios (6%). En el caso de *RN*, destaca al igual que *Vox* el fallo de gobernanza nacional (34%), y en segundo lugar, la amenaza inmigrante (25%). Cabe señalar que tanto *AfD* como *RN* presentan cotas bajas en lo relativo a *frames* de patriotismo y unidad (3%). El *frame* específico en relación al coronavirus más utilizado por *PiS* es el de información de servicio (50%), seguido por patriotismo y unidad (23%), responsabilidad ciudadana (21%) y resiliencia y ánimo (20%). *PiS* no enmarca ninguno de sus contenidos como una crítica a los medios de comunicación, a diferencia de *Vox* (13%) y *RN* (6%) y *AfD* (6%). *PiS* tampoco cuenta con ningún tweet enmarcado en la categoría de conspiración, al contrario que *Vox* (9%) y *RN* (6%), quienes aluden a la ocultación de información y engaño a la ciudadanía.

En cuanto a la respuesta de las audiencias (figura 4B), los *frames* de amenaza inmigrante, fronteras y globalización, y el de fallo de gobernanza nacional imperan entre los tweets con mayor *engagement* de *Vox* (21% y 43%), *RN* (20% y 40%) y *AfD* (44% y 22%). Los *frames* secundarios muestran algunas diferencias: la audiencia de *Vox* favorece por igual los *frames* de crítica a los medios, resiliencia y ánimo, patriotismo y unidad, abuso de poder político e información de servicio (7%), mientras que el público de *RN* otorga cierta relevancia sobre los demás al *frame* de crítica a los medios (13%), inexistente en el resto de la extrema derecha. La principal diferencia radica en *PiS*, donde los *frames* de información de servicio (33%) y patriotismo y unidad (33%) son los más celebrados, seguidos por responsabilidad ciudadana (22%) y resiliencia y ánimo (11%).

En lo que concierne al resto de partidos, la comparativa de gráficas muestra que la tríada *PSOE-CDU-EM* presenta similitudes en su preponderancia del *frame* de información de servicio (50%, 63% y 74%), (figura 5A). Se trata de un enfoque similar al de *PiS* (50%) y en el que coinciden todos los partidos en el gobierno. Por otro lado, *PSOE*, *CDU* y *EM* enmarcan el coronavirus como una cuestión relacionada con la responsabilidad ciudadana (12%, 22% y 19%), el patriotismo y uni-

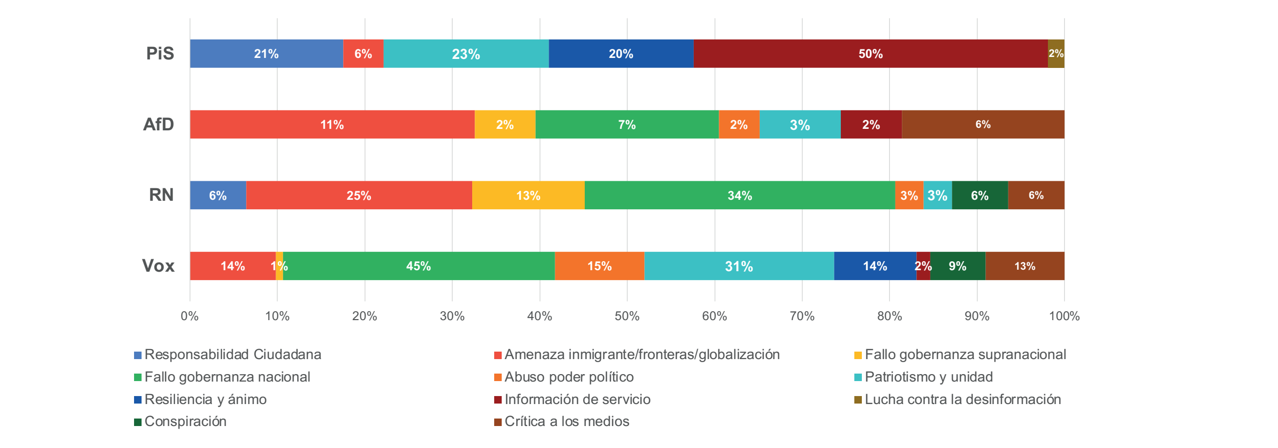

Figura 4A. Distribución de *frames* específicos por partido político (extrema derecha).

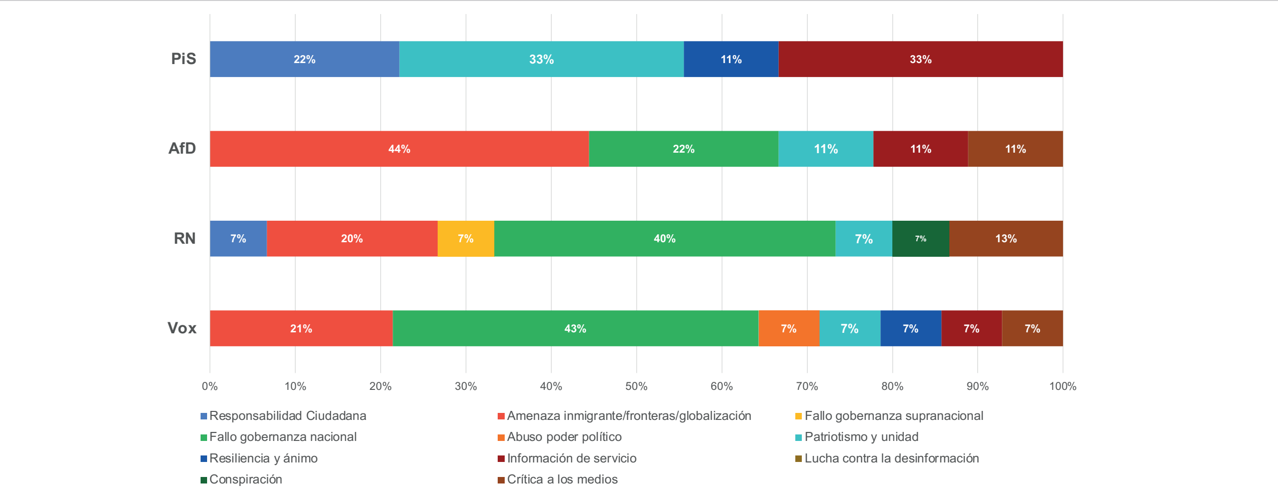

Figura 4B. Prevalencia de *frames* específicos según engagement (extrema derecha).

dad nacional (29%, 24% y 9%), la resiliencia y ánimo (25%, 10% y 5%) y la lucha contra la desinformación (2%, 6% y 14%). Por el contrario, el *frame* más utilizado por *PO* es 'fallo de gobernanza nacional' (60%), dejando en segundo término la información de servicio (23%), e incluyendo abuso del poder político (17%) como marco de comunicación, al igual que *Vox*, *AfD* y *RN*.

Los marcos con mayor e*ngagement* son relativamente similares entre *PSOE*, *EM* y *CDU* (figura 5B), primando la información de servicio (25%, 46% y 40%). En el caso de *PSOE* y *EM*, las audiencias muestran preferencia por el marco de patriotismo y unidad (25% y 23%), mientras que para *CDU*, el *engagement* se favorece con el marco de responsabilidad ciudadana (37%). La divergencia radica nuevamente en *PO*, cuya audiencia muestra mayor fidelización con el marco de fallo de gobernanza nacional (43%), seguido de patriotismo y unidad (21%); la información de servicio goza de menor empuje (14%) que en el resto de partidos del ala socioliberal-democrático y aparece, de forma moderada, un *engagement* relacionado con el marco de abuso de poder político (7%).

Resumiendo el despliegue de datos expuesto en las líneas precedentes, se puede observar cómo los marcos de *PiS* y *PO* constituyen la principal diferencia al desagregar por espectro político. El *frame* de responsabilidad ciudadana es compartido principalmente por los partidos en el gobierno, al igual que información de servicio, que es utilizado por los partidos socioliberales-democráticos y la extrema derecha *PiS*. Por otro lado, el *frame* de amenaza inmigrante es preferente por la extrema derecha, pero cuenta con menor proporción en el caso de *PiS*. Respecto a crítica a los medios de comunicación, *PiS* y *PO* invierten sus papeles, añadiéndose este último al resto de extremas derecha; misma dinámica que se repite con los marcos de abuso de poder político y fallo de gobernanza nacional.

Cabe destacar que el *frame* de conspiración consta solo en dos de los partidos de extrema derecha estudiados, *Vox* y *RN*; y que exceptuando el caso *RN*, el marco de fallo de gobernanza supranacional es apenas empleado.

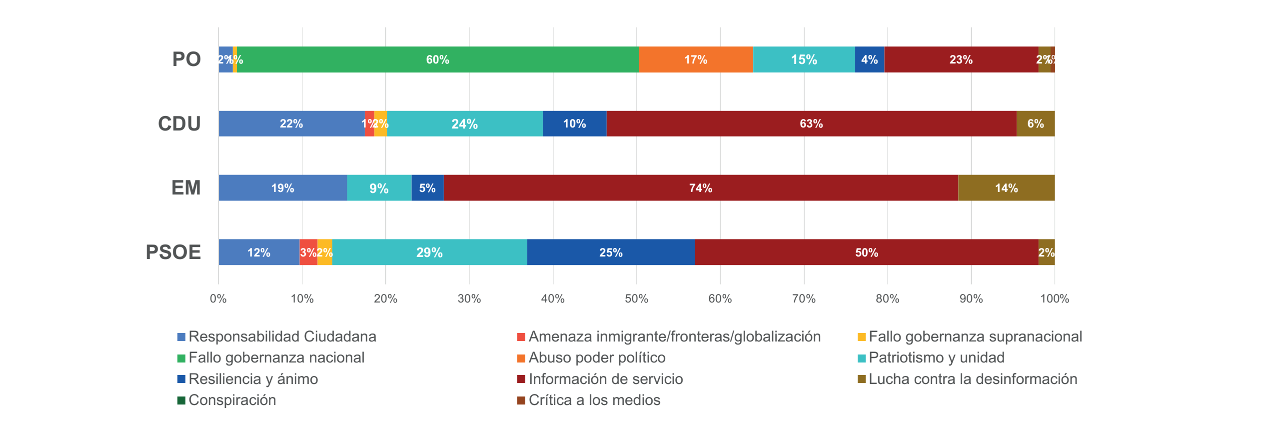

Figura 5A. Distribución de *frames* específicos por partido político (resto de partidos).

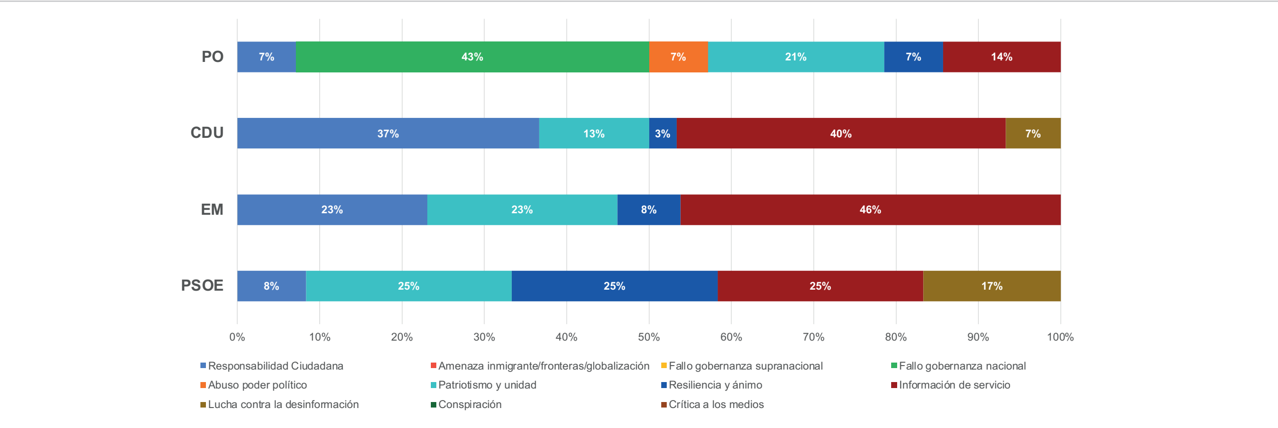

Figura 5B. Prevalencia de *frames* específicos según *engagement* (resto de partidos).

5. Discusión y conclusiones

A la luz de los resultados obtenidos, se retoman las hipótesis inicialmente planteadas con objeto de someterlas a su validación o rechazo.

Primera hipótesis

La primera hipótesis, relativa a frecuencia de publicaciones, es rechazada, puesto que solo los partidos españoles y polacos, entre los cuales figuran los más prolíficos, incrementaron su cuota de tweets. No obstante, se aprecia que existen notables diferencias en el uso de la red social en base a la variable geográfica, y no ideológica, reforzando la idea de una posible correlación basada desde el punto comunicativo más próxima al enfoque de **Hallin** y **Mancini** (2004) que a otros que parten del enfoque de la ciencia política como base de su aproximación al análisis comparado de partidos políticos en su vertiente comunicacional.

Segunda hipótesis

Se desestima que los partidos de extrema derecha favorecieran el marco general de 'esperanza' frente a los de 'conflicto' o 'responsabilidad', exceptuando el caso de *PiS*, donde el *frame* de esperanza es el predominante. En cuanto a este aspecto de énfasis 'motivacional', cabe destacar que el *frame* específico de resiliencia comunitaria sí fue contemplado en la comunicación de *PiS* y *Vox*, reforzando la brecha geográfica a la que se aludía anteriormente. Los hallazgos realizados por **McNeil-Willson** (2020) en su investigación de *Telegram* son parcialmente ratificados, pues si bien es cierto que algunos partidos de extrema derecha elaboraron su comunicación con una óptica resiliente –como él concluía–, los resultados del presente estudio demuestran que estos marcos no fueron los más salientes y que tampoco estuvieron tuvieron lugar en las publicaciones de todos los partidos.

Tercera hipótesis

En relación al *frame* del 'miedo' se confirma la tercera hipótesis, con la que se planteaba que este marco no es característico de la extrema derecha, dado que se halla presente en el resto de partidos, teniendo una presencia singular en el caso de *PO* respecto a los otros componentes de la muestra "resto de partidos" de su espectro ideológico. Los resultados sugieren que el marco del 'miedo' es transversal a la comunicación de todos los partidos, con independencia del signo político, en línea con las afirmaciones de **Ogbodo** *et al.* (2020), quienes entendían el *frame* del miedo como un elemento común en la comunicación mediática durante la crisis del coronavirus.

Si bien es cierto que tres de los cuatro partidos de extrema derecha de la muestra hacen uso de los *frames* generales de conflicto, miedo y racialización identificados en otros estudios como los de **McNeil-Willson** (2020) o **Froio** y **Ganesh** (2018), la implementación de cada uno sigue una lógica propia. Estos autores, que a la par que **Kaunert**, **De-Deus-Pereira** y **Edwards** (2020), **Ariza** (2020) o **DeCook** (2020), apuntan a los marcos de antiglobalización, migración y racismo como fundamentales y característicos en la comunicación de la extrema derecha; no obstante, de acuerdo a los resultados de esta investigación, es necesario matizar que estos enfoques varían en función del partido, siendo su presencia exigua en el caso de *PiS*. Del mismo modo, la crítica por parte de la extrema derecha a los medios de comunicación, que **Engesser**, **Fawzi** y **Larsson** (2017) vinculan a la extrema derecha, se produce en el caso de tres de los cuatro partidos de este espectro, pero no en el caso de *PiS*, donde es inexistente; en cambio, *PO* sí que cuenta con una muy limitada, aunque existente, presencia de este marco. Por otro lado, la alusión a un aspecto conspirativo o de encubrimiento gubernamental, sobre la que teorizaba **DeCook** (2020), no es común a todos los partidos de extrema derecha. Y en cuanto al abuso de poder político, se observa de nuevo una brecha entre España y Polonia con respecto a los demás países; estando este marco presente en los partidos en la oposición, *Vox* y *PO*, y por tanto no respondiendo a razones ideológicas, sino más bien, de dinámica institucional.

Cuarta hipótesis

Se planteaba que los partidos no adscritos a la extrema derecha, constituidos en la muestra por un espectro democrático-socioliberal, privilegian el marco de información de servicio por delante del de unidad nacional y patriotismo lo cual se confirma parcialmente, siendo la hipótesis válida para tres de los cuatro partidos, y significativamente siendo menos obvia en el caso de *PO*. Con la excepción de *PO* a esta hipótesis, y observando la preponderancia de la unidad nacional y el patriotismo en su producción de mensajes, se puede retomar el concepto de populismo de **Laclau** (2005), quien no concibe este como una ideología, sino como una estrategia comunicativa susceptible de ser empleada por distintas corrientes de pensamiento. A pesar de que tradicionalmente se ha asociado la exaltación nacional como un componente prototípico de la extrema derecha, la presente investigación invita a profundizar a otros analistas en la transversalidad de este fenómeno, con el fin de determinar si en los tiempos actuales aún puede entenderse como un rasgo característico de la extrema derecha.

Quinta hipótesis

En cuanto a la evaluación de la respuesta de los públicos, en la que se proponía que los tweets con mayor *engagement* de los partidos de extrema derecha estaban relacionados con *frames* de resiliencia y unidad nacional frente a la crisis, queda descartada la hipótesis. Estos públicos mostraron mayores cotas de fidelización con las publicaciones enmarcadas en el paraguas de la crítica a la gobernanza nacional y la amenaza inmigrante, fronteras y globalización; exceptuando el caso de *PiS*, donde el patriotismo y unidad nacional, junto con la información de servicio, infundieron mayor fidelización. Si bien en líneas generales las afirmaciones de **Comerford** y **Davey** (2020), **Ariza** (2020), **McNeil-Willson** (2020) y **DeCook** (2020) apuntando a la reiteración de los miedos y ansiedades de la extrema derecha en relación a las fronteras y la amenaza inmigrante parecen bastante soportadas en términos cuantitativos (tres de los cuatro partidos de la muestra de extrema derecha parece cumplirlos), el llamamiento de **McNeil-Willson** (2020) para ahondar en tácticas desplegadas por partidos de este espectro para encontrar respaldo en la comunidad es muy pertinente, como se puede ver en el caso de *PiS*. La contención de **Wondreys** y **Mudde** (2020) es, en este sentido, absolutamente inteligente, y como muestran los datos recogidos en el presente estudio, ciertamente coherente con la realidad de los hechos.

La extracción de conclusiones genéricas que engloban la comunicación de la totalidad de la extrema derecha, en la línea de las investigaciones anteriormente citadas, no es, por tanto procedente; sobre todo en el caso de *PiS*, cuyo enfoque difiere drásticamente del utilizado por el resto de partidos de su espectro ideológico, y cuya audiencia, además, reafirma este aspecto diferencial, divergiendo de las audiencias del resto de partidos de extrema derecha en el *engagement* mostrado ante los marcos. Por otro lado, resulta llamativo el caso de *PO*, en la oposición de la cámara polaca, que se distancia de los *frames* utilizados por el resto de partidos de su espectro político, *PSOE*, *EM* y *CDU*, que entre ellos son coincidentes.

Este estudio demuestra que, más allá de una lógica comunicativa que responde a razones ideológicas, las principales diferencias en términos de marcos comunicativos radican en la ostentación del poder ejecutivo, con independencia del signo político. En calidad de limitación de la presente investigación, pero también a modo prospectivo, para futuros estudios acerca de la extrema derecha europea y un potencial discurso transnacional, se propone tener en cuenta la variación de sus estrategias comunicativas en función de la idiosincrasia del contexto nacional, su variable geográfica, su adscripción a un sistema de medios según la clasificación de Hallin y Mancini, y el grado de institucionalización del partido.

Por otro lado, en el transcurso de la realización de este estudio se ha podido constatar que la lógica de marcos sugerida y contrastada en las conclusiones expuestas también puede ser corroborada a través de una aproximación cualitativa en el análisis de la construcción discursiva de Europa y la Unión Europea como un sujeto responsable en la gestión de la crisis. Se sugiere profundizar en esta línea de investigación a través de metodologías que indaguen en el análisis de correspondencias, como pueden ser las tablas de contingencia. Este tipo de análisis ha sido puesto en práctica por autores como

Ganesh y **Froio** (2020), quienes utilizan dicha técnica para estudiar la asociación de 'Europa' en un corpus de tweets, con el fin de abordar su construcción discursiva en el marco de un evento particular. En este sentido, se propone que este tipo de exploración cualitativa podría reafirmar que la enmarcación de *PiS* se aproxima a la óptica de los partidos democráticos y socioliberales, en su llamada a una Unión más activa y con mayores capacidades, a la que se hace responsable de una respuesta. También pondría nuevamente de manifiesto claras distinciones entre una extrema derecha conformada por los partidos que no gobiernan en sus respectivos países, que leerían la problemática fundamentalmente en clave nacional; y los partidos que ostentan el poder ejecutivo, a los que se añade *PiS*, para quienes la crisis del coronavirus demanda una respuesta comunitaria coordinada. Por otro lado, cabría distinguir en función del período de análisis del campo, y ahora una vez que la distancia temporal permite cierta perspectiva de estudio, si los marcos de comunicación varían o evolucionan en distintos sentidos, en relación a otros hitos temporales o nuevas crisis sustanciales.

En último lugar, se plantea la necesidad de una mayor profundización con investigaciones que amplíen la muestra a otros contextos y partidos para obtener resultados plurales y netamente paneuropeos.

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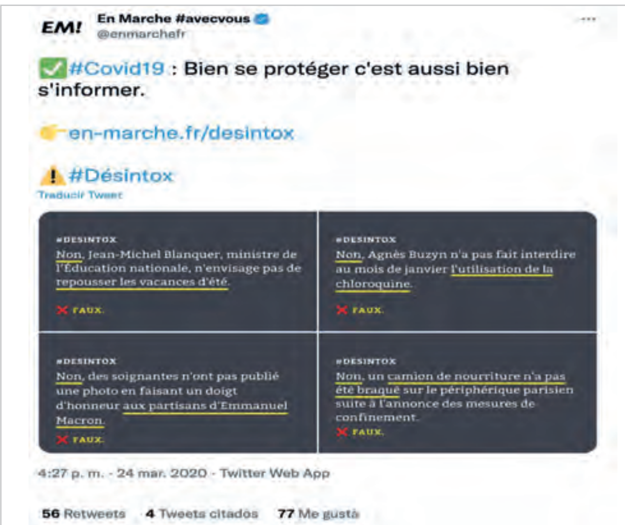
7. Anexos

Frame general "Responsabilidad"

Frame general "Conflicto"

Frame específico "Información de Servicio"

Frame específico "Fallo de Gobernanza Nacional"



Frame específico "Lucha contra la desinformación"

Emergencia del populismo en España: marcos metafóricos de *Vox* y de su comunidad online durante las elecciones generales de 2019

The emergence of populism in Spain: metaphorical frames of *Vox* and its online community during the 2019 parliamentary elections

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Resumen

En un contexto de inestabilidad política –marcado por la convocatoria de cuatro elecciones generales entre 2015 y 2019–, el partido populista *Vox* ha conseguido entrar en uno de los parlamentos que hasta el momento se le había resistido y que lo mantenía alejado de la tendencia de crecimiento de la extrema derecha en Europa. La consideración del populismo y de la presencia de partidos de extrema derecha como un barómetro potencial de la salud de la democracia representativa hace necesario entender cómo estas formaciones construyen su discurso y cómo lo diseminan a través de las redes. Con el objetivo de identificar las ideas fuerza que guiaron la campaña online de *Vox* y de conocer cómo se articula su comunidad analizamos tanto la morfología de la red (n1=1.674.681) como su discurso en *Twitter* durante los dos periodos de campaña electoral en 2019. Las muestras (n2=511) y (n3=892) se componen de la totalidad de tweets publicados por *Vox*, por su candidato a la presidencia, Santiago Abascal, y por los principales perfiles de su comunidad online. Se han analizado siguiendo la metodología del *Critical Metaphor Analysis*, que nos permite aproximarnos de forma cualitativa al contenido de los mensajes y establecer si los rasgos característicos de la comunicación política populista están presentes en los mismos. Los resultados muestran que la estrategia de la organización en ambas campañas se desarrolló bajo los marcos metafóricos de "la dictadura progre" como oposición a "la España viva/del pladur/del sentido común", amenazada por "salvajes", "golpistas" y "medios *fake*" y que esta estructura se difundió parcialmente entre su comunidad online.

Palabras clave

Populismo; Discurso político; Metáfora; Opinión pública; Comunicación política; Partidos políticos; *Vox*; Extrema derecha; *Twitter*; Comunidades online; Campañas electorales; Elecciones.

Abstract

In the context of the political instability shown by the calling of four general elections between 2015 and 2019, the populist party Vox gained parliamentary seats for the first time in a country that, thus far, had always remained outside of European trends. When populism, and especially the presence of far-right parties, are taken into account as a potential barometer of the health of representative politics, it is paramount to understand how these organizations build their discourses and spread them on social media. To identify the main ideas that guided *Vox*'s online campaign and how its community is defined, we analyzed both the morphology of the community (n1 = 1,674,681) and discourses on Twitter during the two 2019 campaign periods. The samples used (n2 = 511, n3 = 746) are made up of all the tweets posted by Vox, its presidential candidate Santiago Abascal, and the main profiles of the online community. We used critical metaphor analysis, which allows us to qualitatively approach the content of the messages and establish whether the characteristic features of populist political communication are present. The results show that, in both campaigns, the organization's strategy was developed from the metaphorical frames of "the progressive dictatorship" as opposed to "living Spain/tradesmen/the Spain of common sense," threatened by "wild immigrants," "coup plotters," and "fake media." This framework was partially distributed among its online community.

Keywords

Populism; Political discourse; Metaphor; Public opinion; Political communication; Political parties; *Vox*; Far-right; *Twitter*; Online communities; Electoral campaigns; Elections.

1. Introducción

En los últimos años España ha experimentado un periodo de inestabilidad caracterizado por el incremento de la desafección política derivada de la gestión gubernamental de la crisis económica de 2008 y de los escándalos de corrupción (**Vidal**; **Sánchez-Vítores**, 2019). Los recortes en sanidad o educación, junto con la crisis social materializada en el incremento de la tasa de desempleo o de los desahucios, agravaron el malestar de la ciudadanía. A estos hechos debe de sumarse la aparición de escándalos de corrupción que afectaron a los partidos que tradicionalmente habían ostentado el poder a nivel estatal o autonómico (Caso Bárcenas, Cas Palau, Caso ERE, Caso Noós, etc.). El Movimiento 15M capitalizó el descontento de la ciudadanía y promovió un escenario en donde se reclamaba una mayor transparencia y participación en la toma de decisiones políticas o la apertura del debate alrededor de temas que hasta entonces habían formado parte de lo que podrían denominarse esferas públicas periféricas, como, por ejemplo, el cuestionamiento de la Transición modélica, el papel de la monarquía, etc. Este descontento tuvo su reflejo electoral en los resultados de las elecciones parlamentarias del 20 de noviembre de 2011 (con un mal resultado del *PSOE*), y, especialmente, en la posterior aparición de *Podemos* en las elecciones europeas de 2014 y su consolidación en las elecciones municipales y autonómicas de mayo de 2015. Como apunta **Sánchez-Muñoz** (2017, p. 239), uno de los resultados derivados de esta situación ha sido la reconfiguración del sistema de partidos predominante en España desde las primeras elecciones democráticas del 15 de junio de 1977.

Por otro lado, como señalan **Gagnon**, **Montagut** y **Moragas-Fernández** (2019), junto con el fin del bipartidismo, el conflicto territorial con Cataluña y la amenaza de ruptura del Estado de las Autonomías ha puesto al Estado ante una situación de estrés y tensión permanente. Así, la imposibilidad de lograr mayorías y de llegar a pactos entre las formaciones del arco parlamentario llevaron a la convocatoria de cuatro elecciones generales entre 2015 y 2019. En las dos últimas convocatorias, y como resultado del alto nivel de resentimiento político y de la intensificación del conflicto político catalán, el cambio más significativo ha sido la aparición del partido populista *Vox*, que ha conseguido entrar en uno de los parlamentos que se había mantenido alejado de la tendencia en el crecimiento de la extrema derecha en Europa (**Arroyo-Menéndez**, 2020; **Ferreira**, 2019; **Pallarés-Navarro**; **Zugasti**, 2022; **Zanotti**; **Rama**, 2020; **Vampa**, 2020). La formación liderada por Santiago Abascal consiguió 2.688.092 votos y 24 escaños en las elecciones del 28 de abril de 2019. En la repetición de la convocatoria electoral el 10 de noviembre de 2019, *Vox* se convirtió en el tercer partido más votado con 3.656.979 votos y 52 escaños.

Vox se fundó en 2013 como escisión derechista del *Partido Popular* ante el supuesto viraje al centro del partido entonces dirigido por Rajoy (**Ferreira**, 2019) y, en un principio, se define como centro derecha nacional. Consigue representación institucional, por primera vez, en las elecciones al Parlamento de Andalucía de 2018, donde obtuvo el 10% de los votos y 12 escaños. Ideológicamente,

> "*Vox* expresa una ideología nativista basada en la lucha contra los enemigos internos –el separatismo– y contra enemigos externos –los globalistas y la inmigración, especialmente la musulmana– a fin y efecto de conseguir un Estado mononacional y monocultural" (**Ferreira**, 2019, p. 81).

Según este mismo autor, la formación se caracteriza por su nacionalismo (Estado mononacional y centralizado arraigado en mitos etnonacionales), su autoritarismo (creencia en una sociedad ordenada en la que las infracciones a la autoridad tienen que ser severamente castigadas) y la defensa de los valores tradicionales (antifeminismo, antiabortismo, familia, tradiciones y mundo rural).

Si bien existe cierto consenso en señalar que la ideología del partido se sostiene sobre los principios de la derecha radical, la unanimidad se rompe cuando se trata de definir a la formación como un partido populista. Autores como **Arroyo-Menéndez** (2020), **Balinhas** (2020), **Ferreira** (2019), o **Pallarés-Navarro** y **Zugasti** (2022) identifican a *Vox* como un partido radical de derecha autoritario, pero no populista, o al menos no tanto como otros movimientos europeos equivalentes. Sin embargo, **Eatwell** y **Goodwin** (2019), **Vampa** (2020) y **Olivas-Osuna** (2021) sostienen que *Vox* es un partido nacional-populista de la derecha radical e identifican en él los principales atributos del discurso populista. Este trabajo parte de la consideración del populismo como un estilo o estrategia de comunicación política puesto al servicio de una ideología y, en este sentido, plantea cómo *Vox* refleja en su discurso los elementos populistas y cómo los concreta a través del uso de marcos metafóricos que, a su vez, construyen el marco populista.

La consideración del populismo y de la presencia de partidos de extrema derecha como un barómetro potencial de la salud de la democracia representativa (**Taggart**, 2004) hace necesario entender el modo en que formaciones como *Vox* construyen su discurso y qué mecanismos utilizan para difundirlo a su comunidad online. Bajo la concepción del término populismo apuntada sobre estas líneas, la presente investigación se propone cumplir con los siguientes objetivos:

O1. Identificar las ideas fuerza del populismo presentes en el discurso de *Vox* durante las campañas del 28 de abril y del 10 de noviembre de 2019.

O2. Establecer cómo se articula la comunidad online de *Vox* y detectar sus perfiles más influyentes en ambas campañas electorales.

O3. Determinar si el marco populista fue difundido entre los líderes de influencia de la comunidad online de *Vox* durante estos períodos electorales.

El estudio da respuesta a estos objetivos a través de una doble aproximación cuantitativa y cualitativa a los mensajes emitidos por *Twitter* por parte del partido (*Vox*), de su líder (Santiago Abascal) y de los perfiles más influyentes de su comunidad online en los dos períodos de campaña para las elecciones generales del 28-A y del 10-N en 2019.

2. El populismo como estilo de comunicación política

La mayoría de los autores tienden a apoyarse en la definición de **Mudde** (2004, p. 544-545) que se aproxima al populismo como una *thin-centred ideology*, que puede combinarse fácilmente con otras ideologías muy diferentes (comunismo, ecologismo, nacionalismo, socialismo), pero también como un estilo especial de comunicación. Según **Taguieff** (1995) el populismo no define un contenido ideológico particular, sino un estilo político aplicable a varios marcos ideológicos, por lo que puede entenderse en términos de discurso. De manera similar, en su investigación sobre el populismo como estilo de comunicación política, tanto **Jagers** y **Walgrave** (2007) como **Aslanidis** (2015) minimizan el componente ideológico del populismo y sugieren considerarlo como un marco discursivo basado en una exhibición de cercanía a los ciudadanos corrientes que plantea la situación actual como problemática, puesto que las élites corruptas se han apropiado de forma injusta de la soberanía de la gente, y que propone como solución su movilización política para reconquistar el poder. En este sentido, **Canovan** (1999) advierte que debe considerarse el populismo como una apelación a la gente en contra de la estructura de poder preestablecida, lo que sitúa este rasgo estructural como la base del marco legitimador del populismo.

Sin embargo, definir el populismo simplemente como un estilo de comunicación política donde la referencia a la gente ocupa un lugar central resulta problemático, porque todos los partidos políticos podrían ser etiquetados como populistas (**Stavrakakis**, 2004). De la misma manera, si el populismo como estilo de comunicación política fuera considerado únicamente como un conjunto de mecanismos retóricos para hablar de una manera particular, no habría desencadenado una discusión académica tan intensa. De acuerdo con **Schoor** (2017) y con la tradición del Análisis Crítico del Discurso (**Van-Dijk**, 1997; **Fairclough**, 2001; **Wodak**, 2017), no podemos entender este estilo de comunicación como algo disociado de la ideología. Teniendo en cuenta la función ideacional del lenguaje (**Halliday**, 1994), que examina cómo se codifican en él las creencias y las ideologías, en esta investigación partimos de la idea sugerida por **Engesser** *et al.* (2017), que consideran que quien utiliza elementos ideológicos clave del populismo lleva a cabo un acto ilocucionario de populismo y se convierte, pues, en un actor político populista. Para que se considere que un político o un partido utiliza un estilo de comunicación política populista, debemos observar la presencia de algunos indicadores formales y de contenido en sus discursos.

> Se considera que un actor político utiliza un estilo de comunicación política populista cuando apela al pueblo y enfatiza su soberanía, subraya la división de la sociedad en dos grupos opuestos y considera al pueblo como un grupo homogéneo

A nivel de contenido, un actor político utiliza un estilo de comunicación política populista cuando apela al pueblo y enfatiza su soberanía, subraya la división de la sociedad en dos grupos opuestos y considera al pueblo como un grupo homogéneo. **Stavrakakis** (2004) señala que lo que da relevancia política a la gente en el discurso populista es su representación antagónica. En consecuencia, la definición de la gente y de quiénes pertenecen a este colectivo –el *In Group* o "nosotros"– está vinculada a quienes desafían su estatus actual, "los otros" –el *Out Group*–. El *In Group* está compuesto por personas que en gran medida comparten los mismos intereses y tienen las mismas características (**Jagers**; **Walgrave**, 2007). El *Out Group* se define por oposición al *In Group* y, por lo tanto, se considera que amenaza su seguridad y su forma de vida al desafiar estos intereses y características comunes. **Brubaker** (2017) establece una doble oposición entre el binomio nosotros/ellos cuando es utilizado por actores políticos populistas. Por un lado, una oposición vertical entre "la gente" y una "élite" política, económica o cultural corrupta, egoísta y desconectada de la realidad y por otro, una oposición horizontal entre "la nación" y los grupos, instituciones o fuerzas estigmatizadas como no nacionales o caracterizadas como amenazas a la nación desde dentro o desde fuera.

> La metáfora es ampliamente utilizada en el discurso político populista dado que ayuda a enmarcar cómo vemos o entendemos los problemas políticos mediante la eliminación de puntos de vista alternativos

La oposición vertical antes mencionada se refiere al antielitismo, mientras que la oposición horizontal está relacionada con el ostracismo de los otros. La primera sugiere que los actores políticos populistas no solo consideran que otros partidos políticos que representan la ideología del bloque dominante están en ese grupo (**Laclau**; **Mouffe**, 2001), sino también el *establishment* económico y los líderes de opinión (**Canovan**, 1999). Estas élites son parte de la misma sociedad en la que vive "la gente", pero no pertenecen a la gente "verdadera" (**Wodak**, 2017). Están desconectadas y solo velan por sus intereses, descuidando los de "la gente", debido a su incompetencia. Más allá de ser antielitistas, también atacan a los "otros peligrosos" formados por inmigrantes, criminales, minorías étnicas, etc. que intentan privar al pueblo soberano de sus derechos, valores, prosperidad, identidad y voz (**Albertazzi**; **McDonnell**, 2008, p. 3). Estos "otros peligrosos" amenazan "la auténtica patria" (*the heartland*), una "concepción idealizada de la comunidad" a la que sirven los actores populistas, que está "construida retrospectivamente desde el pasado" (**Taggart**, 2004, p. 274). Los actores políticos populistas conciben la auténtica patria como un lugar o situación idílica que ocurrió una vez, que ahora ha sido interrumpida por el presente confuso, corrupto y globalizado, y su objetivo final es recuperar la "buena vida" que tenía la gente antes de que esto sucediera. Sin embargo, esta característica, junto con el ataque a los "otros peligrosos", se aplica mayoritariamente al populismo de extrema derecha y, por tanto, no puede considerarse una característica inseparable del populismo como movimiento más amplio (**Mudde**, 2004), que no es necesariamente excluyente (**Mudde**; **Rovira-Kaltwasser**, 2013).

Lo que sí es incuestionable es la referencia a la gente. Como hemos visto, "la gente" está en el centro del populismo y se concibe como una entidad uniforme que comparte con los actores populistas su oposición a la élite (**Rooduijn**, 2013). Se trata de un grupo homogéneo del que los actores políticos populistas son responsables y al que dirigen todos sus esfuerzos comunicativos. En sus discursos políticos suelen presentarse a sí mismos como quienes pueden garantizar que se cumpla la voluntad de la gente y, para hacer esta conexión más realista, hablan sin rodeos y desafían la "corrección política" (**Krämer**, 2017). **Block** y **Negrine** (2017) sostienen que los actores populistas usan un lenguaje beligerante, directo y simple para conectar con un público desencantado. Su expresión verbal, junto con la simplificación excesiva de las cuestiones políticas (**Deiwiks**, 2009), ha encontrado en los medios de comunicación tradicional (**Mazzoleni**, 2003) y ahora en las redes sociales (**Bracciale**; **Martella**, 2017; **Engesser** *et al*., 2017; **Ernst** *et al.,* 2017; **Gerbaudo**, 2018) el medio ideal a través del cual alcanzar la deseada conexión con la gente.

3. Uso de la metáfora en el discurso político populista

Entre los mecanismos empleados por los actores políticos populistas para conseguir este objetivo se encuentra la metáfora (**Breeze**; **Llamas-Saíz**, 2020). Se trata de un recurso ampliamente utilizado en el ámbito del discurso político dado el papel fundamental que juega en la discusión de los asuntos públicos, puesto que ayuda a enmarcar cómo los entendemos mediante la eliminación de puntos de vista alternativos (**Charteris-Black**, 2011).

En las líneas teóricas más recientes, parece asumido que la metáfora juega un doble papel cognitivo y persuasivo. El rol cognitivo de la metáfora, planteado por primera vez en los años 80 por Lakoff y Johnson, establece que esta es una forma de conocer el mundo. De hecho, la metáfora juega un papel determinante en la construcción de la realidad social y política a través de los discursos, ya que ayuda a entender el mundo en el que se vive al permitir conocer una realidad nueva—el *target domain*— a partir de realidades ya conocidas —*source domain*— (**Mio**, 1997; **Musolff**, 2004). En los discursos, la metáfora no funciona como algo aislado, sino que va conectando conceptos de manera que conforma un *frame* de referencia que permite razonar acerca de un tema sobre la base de lo que conocemos en relación con otro tema. Esto es, razonamos sobre lo abstracto o desconocido con base en lo concreto o conocido.

El rol persuasivo de la metáfora se concreta en dos características clave: la focalización de la atención sobre determinados aspectos de la realidad (**Eco**, 1993; **Semino**, 2008) y el tipo de vínculo que se establece entre los dominios que se ponen en común. En primer lugar, la metáfora es persuasiva porque permite focalizar la atención en determinados aspectos de la realidad en detrimento de otros ya que, como afirma **Mio** (1997), en los procesos comunicativos las personas no pueden prestar atención a todos los aspectos de las evidencias políticas y, por lo tanto, se hace necesaria una simplificación/selección de algunos de ellos. En segundo lugar, la capacidad persuasiva de la metáfora radica en el tipo de vínculo que se establece entre el *source domain* y el *target domain*. La metáfora se sustenta en la analogía que se establece entre el concepto que se quiere explicar y el concepto que se utiliza para explicarlo. Según **Perelman** y **Olbrechts-Tyteca** (1994), si una determinada visión es aceptada y compartida para el *source domain,* también lo será para el *target domain*.

> En *Twitter*, los perfiles de usuarios pertenecientes a la esfera pública central –como periodistas y políticos– generan influencia junto a otros perfiles y forman comunidades específicas para cada tema tratado. Así, se puede hablar de un modelo de influencia distribuida en la construcción de opinión pública

La metáfora puede considerarse un recurso discursivo con un alto componente pragmático que pone énfasis tanto en las dinámicas de construcción de los discursos sociales como en su comprensión y valoración. Es por ello por lo que consideramos que las expresiones metafóricas utilizadas en los discursos políticos pueden implicar intencionalidad y están motivadas por las finalidades retóricas del hablante (**Hart**, 2008), porque construir una cosa en términos de otra resulta en una visión particular de la cosa en cuestión, que conlleva, con frecuencia, una determinada actitud o evaluación (**Semino**, 2008). Como apunta **Hellín-García** (2009), las metáforas se convierten en una forma natural a través de la cual los líderes políticos comunican sus creencias, identidad e ideología. En términos de comunicación política, la capacidad de las metáforas para comunicar la ideología de los partidos es lo que da sentido a su uso en el discurso político. Puesto que su elección no es arbitraria, su estudio durante las campañas de 2019 nos permitirá conocer cuáles son las lógicas que subyacen en el discurso de *Vox* en *Twitter* y en qué medida estas se trasladan a los perfiles más relevantes en su comunidad.

4. Metodología

Para dar cumplimiento a los tres objetivos planteados en esta investigación, utilizamos una doble metodología que aplicamos sobre tres muestras diferentes.

4.1. Uso de *Gephi*

En primer lugar, usamos el software de análisis de redes *Gephi* para estudiar cómo se articula la comunidad de *Vox* (O2). Este método se aplica sobre la muestra de todos los tweets y los retweets obtenidos mediante la selección de hashtags, en concreto, #28A, #28Abril, #28Abrilelecciones para las elecciones de abril y #10N, #10N2019, Elecciones 10N y EleccionesGenerales10N para las de noviembre. La muestra quedó conformada por n1=1.674.681 tweets (917.010 para la campaña del 28 de abril y 757.671, para del 10 de noviembre). En el ámbito de *Twitter*, los perfiles de usuarios pertenecientes a la esfera pública central –como periodistas y políticos– generan influencia junto a otros perfiles y forman comunidades específicas para cada tema tratado. De esta forma, se puede hablar de un modelo de influencia distribuida donde cada usuario es un nodo. La influencia se puede atribuir a perfiles que hacen posible la construcción de opinión pública. En el caso de la red de retweets (**Bruns**; **Highfield**, 2015): Líderes de influencia (los perfiles más retweeteados), Constructores (los perfiles que retweetean más) y los Puentes (los perfiles que retweetean más y al mismo tiempo son los más retweeteados). La morfología de la red de retweets nos da una fotografía de los actores que interactúan en la esfera pública virtual y destaca los que ejercen como líderes de la conversación (los líderes de influencia).

4.2. Uso de Análisis Crítico de la Metáfora

En segundo lugar, utilizamos el Análisis Crítico de la Metáfora, tanto para analizar las principales ideas fuerza del populismo de *Vox* durante la campaña (O1) como para explicar cómo estos encuadres se difunden entre su comunidad (O3). La muestra que da respuesta al O1 (n2=511) se compone de la totalidad de tweets publicados por *Vox* (@vox_es) y el candidato a la presidencia Santiago Abascal (@Santi_ABASCAL) entre el 11 y 27 de abril y entre el 1 y 9 de noviembre de 2019. Asimismo, se han analizado los 25 perfiles líderes de influencia de la comunidad de *Vox*, esto es, que lideraron la conversación, en cada una de las campañas electorales (n3=892) para dar cumplimiento a O3. Así, en la campaña de abril, se inspeccionaron 41 perfiles para lograr estos 25 (490 tweets) mientras que en la de noviembre se inspeccionaron 34 (256 tweets). En esta selección se descartaron la cuenta de *Vox* y del candidato a la presidencia, Santiago Abascal, dado que ya habían sido analizadas previamente. También se descartaron la cuenta oficial del *Partido Popular* y la de su líder, Pablo Casado, puesto que se parte de la base de que estas cuentas recogen estrategias discursivas específicas durante la campaña electoral. Sí que se han tenido en cuenta otros líderes del *PP* o de *Vox*. Los perfiles analizados se recogen en la tabla 1.

> Los partidos políticos populistas, dadas sus características, han encontrado en las redes sociales –también en *Twitter*– una forma de establecer un vínculo más directo con la gente y de viralizar sus mensajes circundando el filtro periodístico

Tabla 1. Perfiles líderes de influencia de la comunidad de *Vox* analizados

Campaña del 28/04/2019		Campaña del 10/11/2019	
Perfil de *Twitter*	**Tipo**	**Perfil de *Twitter***	**Tipo**
@Miotroyo2parte	Ciudadanía	@Belen_Larioss	Ciudadanía
@marubimo	Ciudadanía	@JupolNacional	Otros
@voxnoticias_es	Actor político *Vox*	@PReina25	Ciudadanía
@dlacalle	Actor político no *Vox*	@rouco64	Ciudadanía
@CasoAislado_Es	Medio de comunicación	@Encamtado1	Ciudadanía
@monasterioR	Actor *Vox*	@TVisionero	Otros
@iarsuaga	Ciudadanía	@el_pais	Medio de comunicación
@Igarrigavaz	Actor político *Vox*	@electo_mania	Otros
@abc_es	Medio de comunicación	@EFEnoticias	Medio de comunicación
@mediterraneoDGT	Medio de comunicación	@larazon_es	Medio de comunicación
@carlosdavidgf	Actor político no *Vox*	@Macarena_Olona	Actor político *Vox*
@IdiazAyuso	Actor político no *Vox*	@ikerhuarte	Ciudadanía
@ellanzapatatas	Ciudadanía	@jusapol	Otros
@WillyTolerdoo	Ciudadanía	@jucilnacional	Otros
@jaimeberenguer	Actor político *Vox*	@AndaluciaxSi	Actor político no *Vox*
@Sergio_Ramos_A	Actor político no *Vox*	@Esther32837485	Ciudadanía
@esRadio	Medio de Comunicación	@marubimo	Ciudadanía
@ivanedlm	Actor político *Vox*	@AlvaroGz1987	Ciudadanía
@artorius79	No especificado	@Maiteloureiro_	Medio de comunicación
@A3Noticias	Medio de Comunicación	@TeoGarciaEgea	Actor político no *Vox*
@alvarottrr	No especificado	@Tampm_Picassent	Otros
@Comando22107806	Ciudadanía	@Puntual24H	Medio de comunicación
@GreenFraile	Ciudadanía	@_Irene_Rivera	Actor político no *Vox*
@josebouvila	Actor político no *Vox*	@vezapurpura	Ciudadanía
@isabelbonig	Actor político no *Vox*	@CCivicaCatalana	Otros

Todos los tweets que configuran la muestra (n2) y (n3) se han analizado siguiendo el método del Análisis Crítico de la Metáfora (**Charteris-Black**, 2011), que permite aproximarnos de forma cualitativa al contenido de los mensajes y establecer si los rasgos característicos de la comunicación política populista están presentes en los mismos. Se trata de una adaptación del Análisis Crítico del Discurso que nos ha permitido analizar las metáforas utilizadas por los perfiles analizados a través de tres etapas clave: la identificación (1), la interpretación (2) y la explicación (3).

En lo que se refiere a la primera fase, se ha considerado que una expresión era metafórica cuando rompía con la isotopía del texto (**Greimas**, 1987), lo que **Charteris-Black** (2011) define como “tensión semántica”. Entendemos por isotopía la dirección que muestra el texto cuando está sometido a las reglas de coherencia interpretativa (**Eco**, 1980). En el momento en que la coherencia en la interpretación se rompe, identificamos la metáfora, y esto es lo que nos permite poner en marcha la fase de la interpretación. La tabla 2 muestra las categorías que se han tenido en cuenta para identificar y codificar las expresiones metafóricas.

En la segunda fase, la interpretación, se trazan las correspondencias entre el *source domain* y el *target domain* que dan lugar a una metáfora. Esta etapa está relacionada con la articulación de los diferentes *escenarios* (**Musolff**, 2016) que se construyen alrededor del uso de una metáfora e implica la identificación de una determinada narración sobre un hecho político, así como de los actores que intervienen en su desarrollo, lo que denominamos marco metafórico. Esto es, el *escenario* articula las diferentes narrativas o perspectivas posibles de un *source domain* y por ello guía la interpretación del asunto político conceptualizado. Así, para determinar cuál es la narrativa que subyace bajo el uso de una u otra metáfora, es necesario agrupar las distintas expresiones categorizadas en un *source domain* y estudiarlas en profundidad de acuerdo con el contexto en el que fueron emitidas.

Es por ello por lo que las dos primeras partes de este análisis deben complementarse con la tercera fase: la explicación. Es aquí donde interviene el contexto como un elemento importante en el análisis de las metáforas que se generan en lo que el *Pragglejazz Group* (2007, p. 1) define como metáfora en el contexto de emisión –*metaphor in the wild*–, es decir, el uso metafórico en textos reales. De este modo, resulta imposible realizar un análisis detallado de las metáforas utilizadas por *Vox*, Santiago Abascal y por su comunidad online sin atender a los aspectos pragmáticos de los discursos que integran nuestro objeto de estudio.

Tabla 2. Categorías de análisis utilizadas para la identificación de las metáforas en (n2) y (n3)

Categoría de análisis	Descripción
Perfil de *Twitter*	Cuenta de la red social analizada.
Tipo de perfil	Cuenta oficial de *Vox* (@vox_es), cuenta oficial de Santiago Abascal (@Santi_ABASCAL), ciudadanía, medios de comunicación, actores políticos *Vox*, actores políticos No *Vox*, perfiles no especificados y otros –fuerzas de seguridad, institutos de opinión, etc.
Fecha	Fecha de publicación del tweet.
Campaña	Abril / Noviembre.
Mensaje analizado	Fragmento de texto que contiene la metáfora.
Metáfora	Expresión metafórica detectada.
Texto/Imagen	Metáfora verbal / Metáfora visual.
Source Domain (**Musolff**, 2004; **Charteris-Black**, 2006; 2011; **Semino**, 2008)	Conflicto-guerra-crimen; personificación; mecánica-física; viaje-camino-movimiento; naturaleza-tiempo; espectáculo-cine; juego-deporte; salud-enfermedad; religión-creencia; familia-amor-amistad; control-descontrol; construcción; contenedor; fantasía-sueño; otros.
Target domain	Aspecto al que hace referencia la metáfora (p.ej.: España, ciudadanía, *PSOE*, inmigración, etc.).
Elementos del marco populista	Las metáforas detectadas se han agrupado en cuatro categorías que distinguen las cuestiones propias del discurso populista (la gente, la élite, los otros y la auténtica patria) de las que no lo son (las elecciones, políticas sectoriales, partidos políticos de derechas...). También se ha identificado cuando la metáfora se refería a *Vox* o a alguno de sus líderes.
Comentario	Información añadida que contextualiza la metáfora.

Por último, la selección de *Twitter* como plataforma para analizar el discurso de la formación y de los líderes de influencia identificados responde a distintos motivos. Como afirma **Alonso-Muñoz** (2018), *Twitter* es la red social más popular entre los actores políticos, ya que prácticamente el 90% de ellos tienen perfil abierto y hacen un uso habitual de esta plataforma. A nivel de comunicación electoral, resulta una herramienta atractiva porque les permite diseminar masivamente su estrategia (**Gerbaudo**, 2018) y escapar a la mediación del mensaje, además de marcar la agenda de los medios (**Alonso-Muñoz**; **Casero-Ripollés**, 2019; **Pallarés-Navarro**; **Zugasti**, 2022) y movilizar a los votantes (**Rivas-de-Roca**; **García-Gordillo**; **Bezunartea-Valencia**, 2020). Autores como **Vaccari** (2012) o **Lee** y **Shin** (2014) han puesto de relieve que la dimensión dialógica de *Twitter* incrementa la credibilidad de la plataforma y del político, lo que ha supuesto que se convierta en una de las herramientas de comunicación de campaña preferidas por las organizaciones políticas (**Campos-Domínguez**, 2017).

En este sentido, los partidos políticos populistas, dadas sus características, han encontrado en las redes sociales –también en *Twitter*– una forma de establecer un vínculo más directo con la gente y de viralizar sus mensajes circundando el filtro periodístico (**Engesser** *et al.*, 2017). *Vox* ha estado presente *Twitter* desde su nacimiento en 2013 y, en los últimos años, ha sido capaz de dar a conocer su programa político y de ampliar su base mediante la estrategia que ha desarrollado en esta y otras redes sociales, pese a no tener acceso a los medios de comunicación tradicionales (**Turnbull-Dugarte**, 2019). El estudio de **Gamir-Ríos** *et al.* (2022) sobre la actividad en *Twitter* de los candidatos a la presidencia del Gobierno en las elecciones de 2019 revela que el comportamiento de Santiago Abascal fue similar al de otros actores políticos con escasa trayectoria institucional. Esto es, el líder de *Vox* hizo un uso más intenso de *Twitter* y su ganancia de notoriedad fue superior a la de los líderes políticos que ya contaban con representación parlamentaria. Considerando lo expuesto en estas líneas, la presente investigación contribuye a la literatura existente sobre la presencia de la formación en esta red social y la amplia centrándose en el uso de las metáforas en su estrategia discursiva.

5. Resultados

Objetivo 1: Identificar las ideas fuerza del populismo presentes en el discurso de *Vox* durante las campañas de 2019

En lo que se refiere a las ideas fuerza presentes en los tweets de *Vox* y de su líder (O1), se ha configurado un corpus de 379 metáforas, de las que 232 corresponden a la campaña de abril y 147 a la de noviembre. Como se observa en la tabla 3, entre los elementos populistas, la categoría más metaforizada es la gente, con un total de 139 metáforas (un 36,68% del total), y la menos metaforizada la auténtica patria, a la que sólo se refieren 6 metáforas (1,58%). Destaca también el número de metáforas que no se refieren a los elementos propios de la comunicación populista (16,36%) y las que se refieren a *Vox* (16,09%).

Tabla 3. Distribución de metáforas según el *target domain* en cada campaña electoral

Target domain	**Abril**		**Noviembre**		**Total**	
	µ	**%**	**µ**	**%**	**µ**	**%**
Gente	89	38,36	50	34,01	139	36,68
Élite	39	16,81	33	22,45	72	19,00
Elementos no populistas	33	14,23	29	19,73	62	16,36
Vox	42	18,10	19	12,93	61	16,09
Los otros	24	10,34	15	10,20	39	10,29
Auténtica patria	5	2,16	1	0,68	6	1,58
Total	**232**	**100,00**	**147**	**100,00**	**379**	**100,00**

Dados los objetivos de este trabajo de detectar cómo los elementos populistas del discurso de *Vox* se transmiten o no en su comunidad, detallamos las principales metáforas relativas a los elementos que configuran el discurso populista (la gente, la élite, los otros y la auténtica patria) que, como se ha visto, agrupan el 67,55% de las metáforas detectadas (256). El porcentaje es muy similar en ambas citas electorales (67,67% en abril y 67,34% en noviembre).

Las metáforas más utilizadas en la campaña de abril son las referidas al *source domain* del conflicto/guerra/crimen y a la personificación. Como muestra la tabla 4, las metáforas bélicas predominan en todos los aspectos del discurso populista excepto para hacer referencia a la gente. Aun así, también es relevante para metaforizar este aspecto. La tabla 4 también evidencia que el resto de las metáforas están menos presentes, aunque alguna de ellas destaca para hacer referencia a algún aspecto concreto del discurso populista. Es el caso, por ejemplo, de las metáforas sanitarias para hacer referencia a la élite.

Tabla 4. Metáforas referidas a los elementos del discurso populista en la campaña de abril

Source domain	**La élite**		**La gente**		**Los otros**		**La auténtica patria**	
	µ	**%**	**µ**	**%**	**µ**	**%**	**µ**	**%**
Conflicto/Guerra/Crimen	18	46,15	25	28,09	16	66,67	1	20
Personificación			46	51,69	1	4,16		
Salud/Enfermedad	7	17,96	1	1,18	1	4,16	1	20
Construcción	3	7,69	4	4,49	1	4,16		
Viaje/Camino/Movimiento	3	7,69	3	3,37	1	4,16		
Naturaleza/Tiempo	2	5,14	3	3,37	1	4,16		
Contenedor			5	5,62				
Mecánica/Física	1	2,56	1	1,18	1	4,16	1	20
Espectáculo/Cine	1	2,56	1	1,18	1	4,16		
Familia/Amor/Amistad					1	4,16	2	40
Religión/Creencia	3	7,69						
Otros	1	2,56						

En la campaña de noviembre se repite el mismo patrón que en la de abril. Como se ve en la tabla 5, las principales metáforas son las de carácter bélico y la personificación. La primera predomina para hacer referencia a la élite y a los otros mientras que la personificación se usa para hacer referencia a la gente. En la tabla 5 se observa que en noviembre los aspectos más metaforizados son la élite y la gente mientras que los otros y la auténtica patria son elementos menos metaforizados.

Mediante el análisis crítico de la metáfora pueden interpretarse las principales metáforas referidas a cada uno de los aspectos del discurso populista.

La dictadura progre (la élite)

Como muestran las tablas 4 y 5, el principal *source domain* para hacer referencia a la élite es el conflicto/guerra/crimen en ambas citas electorales. Así, en la campaña de abril supone el 46,15% de las metáforas mientras que en noviembre es el 48,48%. Este es el marco metafórico más destacado, ya que el resto se sitúan a mucha distancia y su uso es irregular en ambas campañas. Así, las metáforas referidas a la salud/enfermedad suponen un 17,96% en abril, pero apenas tienen presencia en noviembre (3,03%).

A partir de estos *source domains*, la figura 1 muestra las principales expresiones utilizadas para designar al Gobierno que es tildado de *dictadura.* El uso del epíteto *progre* da a entender que *Vox* y su candidato conciben la ideología progresista o socialdemócrata como algo no deseable y que constriñe las libertades de la gente. Esta *dictadura* se perpetua a través de las *atalayas* de los medios de comunicación y se le acusa de querer *liquidar* a la nación con las *leyes totalitarias* que promulga. Sus simpatizantes son acusados de *vanguardia encapuchada de hoz y martillo*, *vanguardia violenta* u *hordas comunistas* y la *lucha* es la única opción de *derrotar* a Pedro Sánchez y a los *enemigos* de España.

Tabla 5. Metáforas referidas a los elementos del discurso populista en la campaña de noviembre

Source domain	**La élite**		**La gente**		**Los otros**		**La auténtica patria**	
	μ	**%**	**μ**	**%**	**μ**	**%**	**μ**	**%**
Conflicto/Guerra/Crimen	16	48,48	13	26	14	93,33		
Personificación	1	3,03	20	40				
Viaje/Camino/Movimiento	3	9,09	2	4			1	100
Mecánica/Física	3	9,09	2	4	1	6,67		
Construcción			4	8				
Otros	3	9,09	1	2				
Contenedor	1	3,03	2	4				
Familia/Amor/Amistad			3	6				
Religión/Creencia	3	9,09						
Salud/Enfermedad	1	3,03	1	2				
Espectáculo/Cine	1	3,03	1	2				
Naturaleza/Tiempo			1	2				
Fantasía/sueño	1	3,03						

Esta empresa no debe de ser difícil, puesto que la *dictadura progre agoniza* y hay *síntomas* por todas partes, ha *perdido la cabeza* y el sentido común, está *enloqueciendo* y será la España del *pladur*, la de los *currantes*, la España real que es la gran olvidada por quienes están en el Gobierno, quien se enfrente a sus *neuras*. Lo hará de la mano de *Vox*, quien ya ha *resquebrajado* los *cimientos* de la *dictadura progre* y ayudará a *derribarla* por completo.

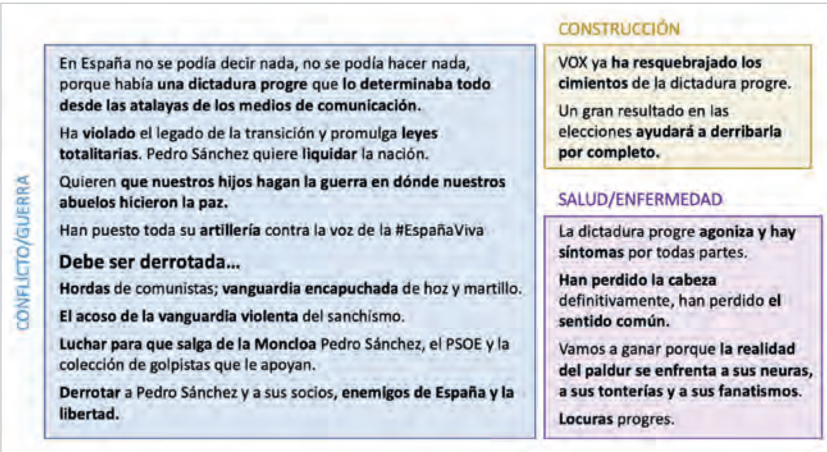

Figura 1. Mapa conceptual de "la dictadura progre"

***La España viva, del sentido común, la España del pladur* (*la gente- el In Group*)**

Como muestran las tablas 4 y 5, los principales source domain referidos a la gente son la personificación y el conflicto/guerra/crimen en ambas citas electorales. En la campaña de abril, la personificación supone el 51,69% de las metáforas referidas a la gente mientras que, en la campaña de noviembre es del 40%. Las metáforas bélicas suponen un 28,09% en abril y el 26% en noviembre. El resto de marcos metafóricos se sitúan por debajo del 10%.

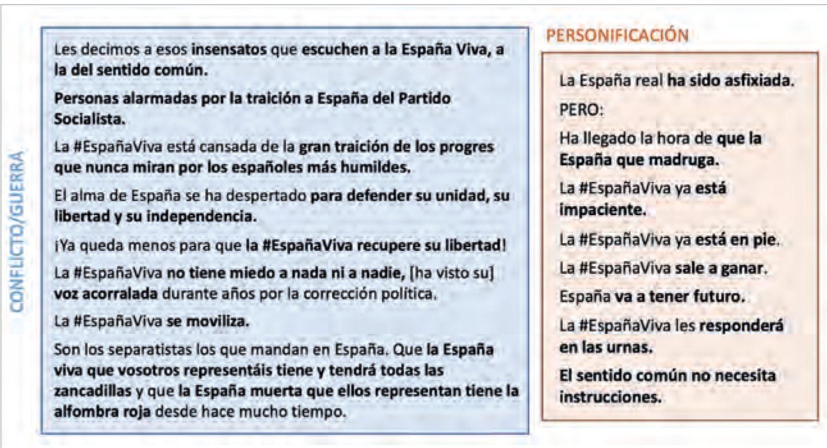

Figura 2. Mapa conceptual de la *España del pladur*

A partir de los source domain detectados en los tweets de *Vox* y de su candidato, se puede establecer que el principal marco metafórico referido a la gente es la *España viva* (figura 2). Una España *cansada* de la *gran traición* de la élite que nunca mira por los españoles más humildes, que lleva tiempo *asfixiada*. Las expresiones la *España viva*, la *España del pladur*, la *España del sentido común*, se usan metonímicamente de forma indistinta para apelar al colectivo de la gente, quien integra el *In Group* o el grupo que realmente pertenece a la nación y tiene derecho al bienestar. Se trata de un colectivo que, hasta la llegada del partido a la escena política, se encontraba en una suerte de letargo, pero que ahora *ha despertado* y *se moviliza* para *defender* su unidad, su libertad y su independencia, sin *miedo* a nada ni a nadie. Está *impaciente, en pie y sale a ganar*.

La situación política actual y las elecciones se plantean aquí como una batalla entre dos bloques: el de la gente –la *España viva*– y el de los otros –la *España muerta*. De forma contraria a quienes representan el *sentido común*, pues, se encuentran todos los que *amenazan* la *sensatez* y el estilo de vida y creencias de la *España viva*.

***Salvajes, golpistas y medios fake* (*el otro – el Out Group*)**

Como muestran las tablas 4 y 5, las metáforas bélicas son prácticamente las únicas utilizadas por *Vox* y por Abascal para hacer referencia al *Out Group*. De hecho, en la campaña de noviembre fue prácticamente la única. En el caso de la campaña de abril, este conjunto de metáforas apareció en el 66,7% de las ocasiones, el resto de metáforas referidas a estos colectivos se utilizaron únicamente en una ocasión.

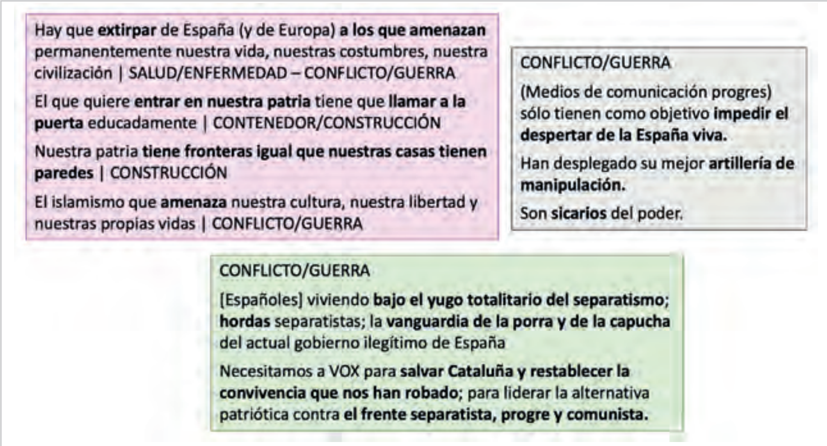

Figura 3. Mapa conceptual de "los otros"

Entre quienes conforman el grupo que se configura como oposición a la gente, se encuentran los inmigrantes y los partidos independentistas y los medios de comunicación alineados con la *dictadura progre*, si bien estos últimos podrían considerarse también parte de la élite (figura 3). Sea como fuere, lo que estos colectivos comparten es la intención de dañar las condiciones y el estilo de vida de los *currantes* y la patria donde habitan. Es por ello por lo que, ante la llegada de *salvajes* y del islamismo que *amenaza nuestra cultura, nuestra libertad y nuestras propias vidas* y debe ser *extirpado* cuál dolencia en un cuerpo que ve degradada su salud, *Vox* opta por presentar a España en términos de una casa donde debe *llamarse a la puerta educadamente* para poder entrar. Así, las fronteras territoriales son comparadas con las *paredes* de una morada, cosa que implica que, si es *allanada*, deba penalizarse a quien perpetúe el *allanamiento*.

Además de la *amenaza* externa, la *España viva* debe hacer frente a quienes pretenden *destrozarla* dentro de sus fronteras. Estos son los *golpistas*, aliados de Pedro Sánchez y de la *dictadura progre*, responsables de que los españoles (sobre todo los que residen en Cataluña) vivan bajo el *yugo totalitario* del separatismo. Se les acusa, en este sentido, de haber *robado la convivencia* y *Vox* se presenta como la alternativa patriótica contra el frente separatista porque no *ha llegado* España *hasta aquí* para que la *derroten* una *pandilla* de *sediciosos*.

***La reconquista o el make Spain great again* (*la auténtica patria*)**

El menor número de metáforas (6) de la campaña de *Vox* y de Abascal en *Twitter* hicieron referencia a la auténtica patria. Como muestran las tablas 4 y 5, los principales marcos metafóricos fueron el de conflicto/guerra/crimen y el de familia/amor/amistad, tal como se observa en la figura 4. Del mismo modo que en otros partidos de extrema derecha en Europa, las narrativas míticas o arraigadas en la idealización de un pasado mejor formaron parte del discurso desarrollado por *Vox* durante las campañas electorales analizadas (figura 4). Así, debe destacarse especialmente la recuperación de la idea de la "reconquista", vinculada a la expulsión de los musulmanes de la Península Ibérica, y al momento histórico en el que el nacionalismo suele situar el inicio del imperio español (**Esteve-del-Valle**; **Costa-López**, 2022).

Según la narrativa del partido, *Vox* y su líder, Santiago Abascal, se comprometen a *reconquistar* España y la libertad y *defender* las *columnas* de la sociedad occidental. En las elecciones de abril, les avalaba su primera victoria electoral en Andalucía, donde se demostró que la *reconquista* es posible. El partido se presenta como el único garante de la *auténtica patria*, la defendida por la *marea patriótica* que *inunda* toda España, y advierte que no permitirá que *se escupa sobre ella*, porque *merece orgullo, no vergüenza ni complejos*. Así, votar a *Vox* es la única posibilidad de hacer *a España grande otra vez*.

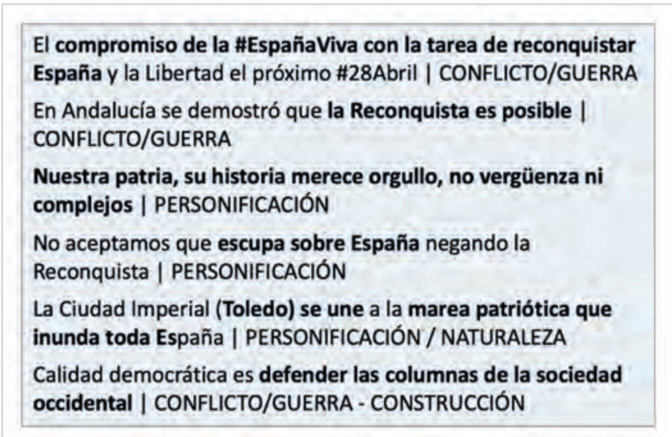

Figura 4. Mapa conceptual de "la auténtica patria"

Objetivo 2: Establecer cómo se articula la comunidad online de *Vox* y detectar sus perfiles más influyentes durante las elecciones de 2019

En relación con O2, se observa que en ambas elecciones la comunidad de *Vox* aparece alineada con otros partidos de derechas, aunque la morfología de la red es diferente en cada una de las elecciones. Así, como se observa en la figura 5, relativa a la campaña de abril, la comunidad de *Vox* (color azul) aparece en un extremo, alejada de otras comunidades. En cambio, en la campaña de noviembre, la morfología de la red (figura 6) no es tan alargada, y la comunidad de *Vox* (color anaranjado) aparece más próxima al resto de comunidades. La forma más alargada que toma la red en la campaña de abril implica mayor polarización, esto es, la comunidad de *Vox* estuvo más aislada porque sus integrantes interactuaron más entre sí. En cambio, la forma más compacta de la red en la campaña de noviembre implica que los perfiles de la comunidad no se retweetearon tanto entre ellos y, por lo tanto, descendió en nivel de aislamiento.

Las figuras 7 y 8 muestran con más detalle los principales perfiles de la comunidad de *Vox* en cada una de las campañas electorales. Así, tras hacer un zoom hacia el interior de estas comunidades podemos determinar los perfiles más influyentes en cada elección. Los perfiles que aparecen en estas imágenes son los que se eligieron para el análisis de las metáforas de la comunidad de *Vox* (O3). Estos perfiles se consideran como los más influyentes en la conformación de la opinión pública porque son los que recibieron un mayor número de retweets y, por lo tanto, su mensaje llegó a un mayor número de usuarios.

A partir de la consideración de los cien primeros perfiles de la comunidad formada en la campaña de abril se ha elaborado el gráfico 1, en el que se observa que el primer lugar lo ocupan los candidatos y dirigentes del *Partido Popular* (24,39%). De inmediato, los perfiles más abundantes fueron los de líderes y candidatos *Vox* (19,51%). A cierta distancia, encontramos los perfiles de ciudadanos que siguen a *Vox* (17,07%) y los de los medios de comunicación (12,19%). En esta campaña también son relevantes los perfiles que ya no existen al buscarlos después de las elecciones (21,95%).

En el gráfico 2, elaborado a partir de las características de los cien primeros usuarios de la comunidad formada en las elecciones de noviembre, se observa una mayor variedad de perfiles, entre los que destacan claramente las cuentas que pertenecen a ciudadanos que apoyan a *Vox* (26,47%). A cierta distancia encontramos a los candidatos y líderes de otros partidos políticos y medios de comunicación (15%). En contraposición a las elecciones de abril, las elecciones de noviembre no incluyen exclusivamente a políticos del *Partido Popular*. Finalmente,

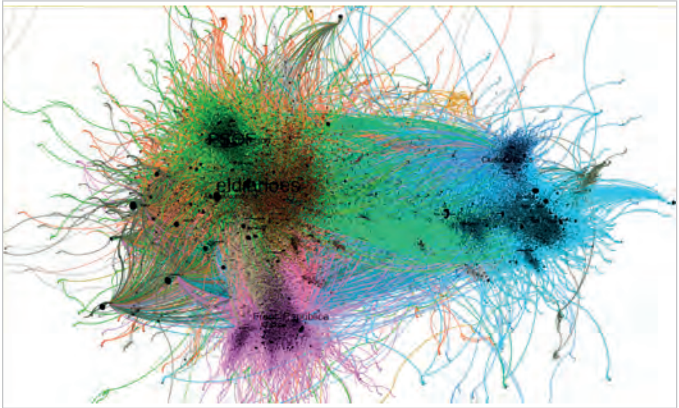

Figura 5. Comunidad online de *Vox* en la campaña del 28 de abril de 2019

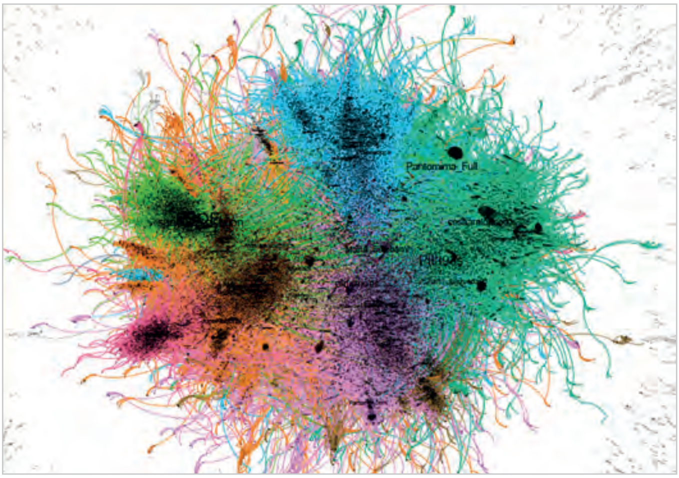

Figura 6. Comunidad online de *Vox* en la campaña del 10 de octubre de 2019

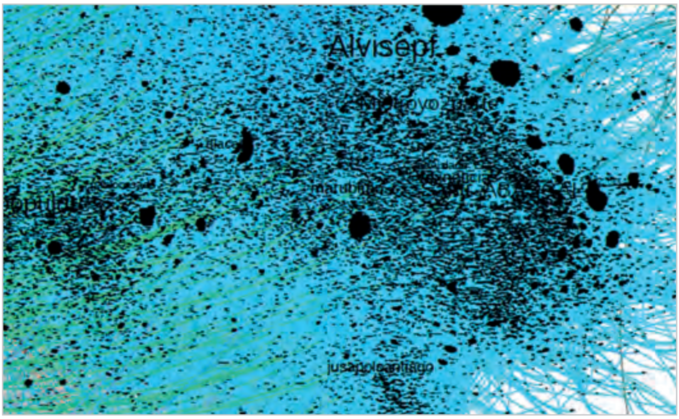

Figura 7. Perfiles más influyentes de la comunidad online del 28 de abril de 2019

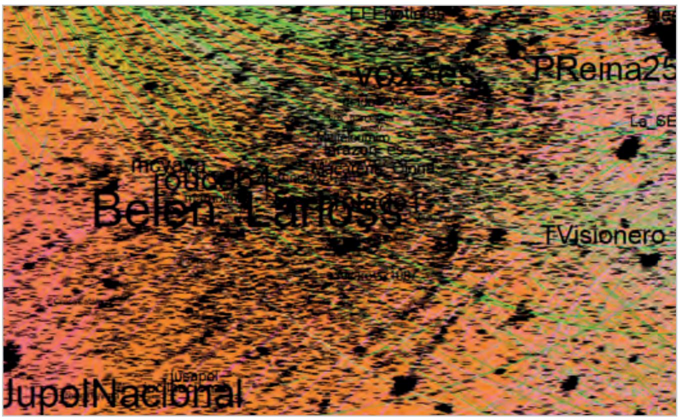

Figura 8. Perfiles más influyentes de la comunidad online del 10 de noviembre de 2019

hay perfiles de los cuerpos de seguridad (debido a la controvertida decisión de la Comisión Electoral de no permitir votar a los policías con destino en Cataluña) así como candidatos y líderes de *Vox*.

Como se verá en la presentación de los resultados del O3, las diferencias en el mapa de perfiles de cada campaña incidieron tanto en el número de metáforas referidas a los componentes del discurso populista (y a las no referidas a ellos) como en los marcos metafóricos utilizados.

Objetivo 3: Determinar si el marco populista fue difundido entre los líderes de influencia

En relación con el O3, se han detectado 892 metáforas de las que 605 corresponden a la campaña de abril y 287 a la de noviembre (tabla 6). A diferencia de lo que sucede con los perfiles de *Vox*, la categoría más metaforizada es la élite con un total de 190 metáforas (un 21,30% del total) y la menos metaforizada, los otros (con un 10,87%). También se detectan diferencias en el número de metáforas que no se refieren a los elementos propios de la comunicación populista (30,83%), que en el caso de los líderes de influencia es la categoría más metaforizada, y las que se refieren a *Vox* (12,33%).

Siguiendo el esquema explicativo utilizado para dar respuesta a O1, detallamos las principales metáforas relativas a los elementos que configuran el discurso populista (la gente, la élite, los otros y la auténtica patria) que, agrupan el 56,84% de las metáforas detectadas (507) y, como en el caso de las cuentas de *Vox*, son mayoritarios, aunque con un porcentaje menor. El porcentaje es muy similar en ambas citas electorales (59,85% en abril y 50,52% en noviembre).

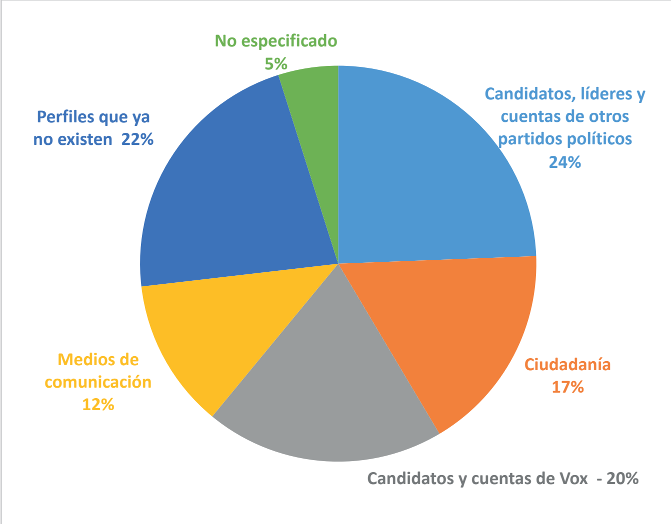

Gráfico 1. Principales perfiles de la comunidad online de *Vox* en la campaña del 28 de abril de 2019

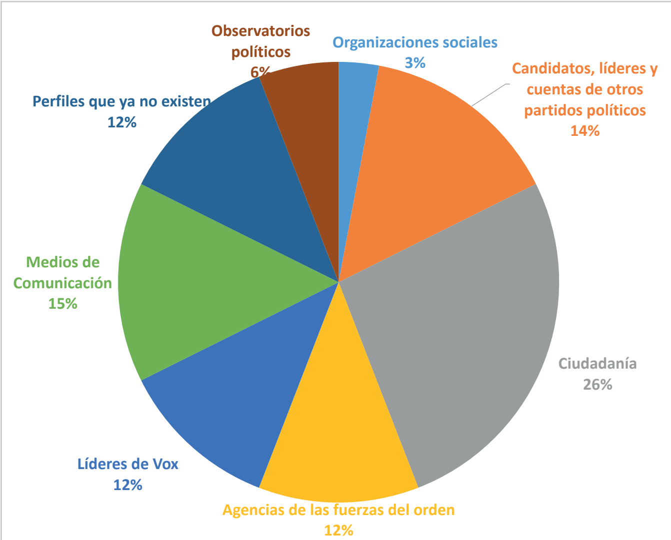

Gráfico 2. Principales perfiles de la comunidad online de *Vox* en la campaña del 10 de noviembre de 2019

Como muestra la tabla 7, la comunidad online de *Vox* priorizó los mismos marcos metafóricos que *Vox* y su candidato, aunque la intensidad en su uso fue diversa. En primer lugar, el uso de metáforas bélicas se concentra sobre todo en la referencia a los otros y, en menor medida en la élite mientras que ocupa el segundo lugar en referencia a la gente y el tercero para la auténtica patria. De hecho, en estos dos ámbitos su uso es menor que el que llevó a cabo *Vox*. En el caso de la gente, la metáfora principal es la personificación, en consonancia con la cuenta oficial del partido y de su candidato. En relación con la auténtica patria, la metáfora más habitual es la personificación seguida de las metáforas de mecánica física en la que se pone énfasis en el peligro de que España *se rompa*. Por otro lado, en la tabla 7 también se pone en evidencia que la comunidad de *Vox* hizo un uso más variado de metáforas.

Tabla 6. Distribución de metáforas según el target domain en cada campaña electoral

Target domain	**Abril**		**Noviembre**		**Total**	
	µ	**%**	**µ**	**%**	**µ**	**%**
Gente	89	14,71	28	9,76	117	13,12
Élite	132	21,82	58	20,21	190	21,30
Elementos no populistas	153	25,29	122	42,51	275	30,83
Vox	90	14,88	20	6,97	110	12,33
Los otros	71	11,74	26	9,06	97	10,87
Auténtica patria	70	11,58	33	11,49	103	11,55
Total	605	100	287	100	892	100

Tabla 7. Metáforas de la comunidad online de *Vox* referidas a los elementos del discurso populista en la campaña de abril

Source domain	**La élite**		**La gente**		**Los otros**		**La auténtica patria**	
	µ	**%**	**µ**	**%**	**µ**	**%**	**µ**	**%**
Conflicto/Guerra/Crimen	46	34,85	7	7,87	41	57,74	11	15,71
Personificación	4	3,03	67	75,28	1	1,41	21	30,00
Mecánica/Física	8	6,06	2	2,24	3	4,23	15	21,43
Viaje/Camino/Movimiento	10	7,58	3	3,37	2	2,82	6	8,57
Naturaleza/Tiempo	8	6,06	3	3,37	5	7,04	-	-
Espectáculo/Cine	13	9,85	1	1,12	1	1,41	-	-
Juego/Deporte	4	3,03	1	1,12	-	-	9	12,86
Salud/Enfermedad	8	6,06	-	-	2	2,82	1	1,43
Religión/Creencia	4	3,03	-	-	6	8,45	-	-
Familia/Amor/Amistad	5	3,79	3	3,37	-	-	1	1,43
Control/Descontrol	1	0,76	-	-	4	5,63	1	1,43
Construcción	-	-	1	1,12	2	2,82	2	2,86
Contenedor	-	-	-	-	-	-	3	4,28
Otros: Nobleza	3	2,27	-	-	-	-	-	-
Fantasía/Sueño			1	1,12	1	1,41	-	-
Otros	13	9,84	-	-	3	4,23	-	-

La distribución del uso de metáforas en la campaña de noviembre es similar a la de abril, tal como muestra la tabla 8. En esta campaña, destaca el descenso de las metáforas bélicas que en el caso de la gente y de la auténtica patria prácticamente desaparecen. Este descenso puede estar relacionado con el descenso de polarización, tal como se ha detectado en el O2. En lo que se refiere al uso del resto de metáforas, la distribución es similar a la campaña de abril.

Tabla 8. Metáforas de la comunidad online de *Vox* referidas a los elementos del discurso populista en la campaña de noviembre

Source domain	**La élite**		**La gente**		**Los otros**		**La auténtica patria**	
	µ	**%**	**µ**	**%**	**µ**	**%**	**µ**	**%**
Conflicto/Guerra/Crimen	13	22,41	2	7,14	10	38,46	2	6,06
Personificación	5	8,62	15	53,57	1	3,85	4	12,12
Mecánica/Física	4	6,89	1	3,57	1	3,85	15	45,45
Contenedor	5	8,62	1	3,57	-	-	5	15,15
Juego/Deporte	5	8,62	4	14,29	-	-	1	3,03
Viaje/Camino/Movimiento	1	1,72	1	3,57	3	11,54	3	9,09
Naturaleza/Tiempo	6	10,34	-	-	1	3,85	-	-
Religión/Creencia	2	3,45	-	-	4	15,38	1	3,03
Espectáculo/Cine	3	5,17	-	-	2	7,69	-	-
Familia/Amor/Amistad	2	3,45	3	10,71	-	-	-	-
Otros: Nobleza	4	6,89	-	-	-	-	-	-
Salud/Enfermedad	1	1,72	-	-	-	-	1	3,00
Construcción	1	1,72	-	-	1	3,85	-	-
Otros	6	10,34	1	3,57	3	11,54	1	3,03

***De la dictadura progre a los enemigos de España* (*la élite*)**

El análisis de las metáforas referidas a la élite muestra que en la comunicación de la comunidad de *Vox* destaca la escasa presencia de la categoría *Progres* que se sustituye por la metaforización del presidente Sánchez, su partido político, el *PSOE*, su Gobierno y quienes le dan su apoyo (denominados genéricamente, socios del Gobierno) como *enemigos* de España. Esta metáfora pertenece al *source domain* de Conflicto/Guerra/Crimen que, como muestran las tablas 7 y 8, es el más habitual para hacer referencia a la élite. A pesar de que las metáforas bélicas están presentes en las dos campañas analizadas, es más numerosa en abril y se desarrolla de manera más clara. En cambio, su uso en la campaña de noviembre es residual. Las metáforas del campo del espectáculo son las segundas más numerosas para hacer referencia a la élite. El escenario que plantea la comunidad de *Vox* en este ámbito metafórico considera que Pedro Sánchez y Pablo iglesias (y por extensión sus partidos, sus ideologías y el gobierno del que forman parte) explican *cuentos* a la ciudadanía (es decir, les engañan) o *versiones* de la realidad lo que da lugar a que estos *personajes* den un *espectáculo* (que se adjetiva como *vergonzoso*). También se encuentran ejemplos en los que se hace referencia a relatos concretos como el *Titanic*, el *Joker* o las películas de buenos y malos (la élite son *los malos*).

***La España viva versus la España muerta* (*la gente*)**

Como muestran las tablas 7 y 8, se han identificado 117 metáforas referidas a la categoría de la gente. La principal metáfora para hacer referencia a este conjunto es la personificación que aparece en el 70,08% de los casos. A mucha distancia se sitúan las metáforas bélicas, un 7,69% del total, y las de Familia/Amor/Amistad, con el 5,13% y las de Juego/Deporte, con el 4,27%. El predominio de la personificación se da en ambas campañas electorales, aunque es mayor en la campaña de abril, en donde estas metáforas superaron el 75% de las metáforas referidas a la gente.

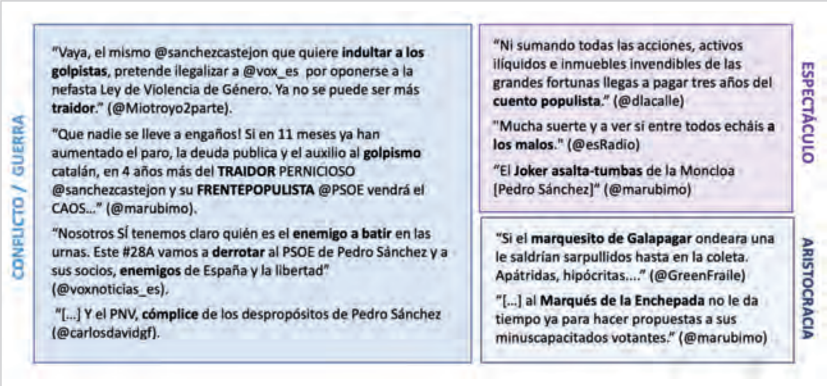

Figura 9. Mapa conceptual de "los enemigos de España"

Como muestra la figura 10, la principal metáfora para hacer referencia a la gente es la *España viva.* Esta se dio sobre todo en la campaña del mes de abril ya que solo aparece en dos ocasiones en el mes de noviembre. Se trata de una metáfora propia de *Vox* y de sus líderes que es replicada por perfiles ciudadanos (no aparece citada en ninguna ocasión ni por perfiles mediáticos ni por perfiles pertenecientes a otros partidos políticos).

Figura 10. Mapa conceptual de "la España viva"

Un elemento destacado de esta personalización de la *España viva* es que, en numerosos tweets, aparece como opuesta a la *España muerta*. Es una muestra de polarización del discurso entre esta comunidad. Como fruto de la personificación, a la *España viva* se le otorga la capacidad de actuar: *sale a la calle*, *acude a mítines*, *supera las zancadillas* que le pone la *España muerta*, *tiene voz*, *hace historia*, *tiene ilusión*, *es imparable*, *se pone en pie*, etcétera.

Las metáforas bélicas que aparecen en la comunidad de *Vox* tienen como protagonistas a los votantes o seguidores de *Vox* a los que se les otorgan capacidades para *defender* España o para *atacar* los que perjudican España, haciendo gala de su valentía. A pesar de que las metáforas bélicas se podrían considerar como connotadas negativamente, *Vox* para definir a la gente construye *escenarios* positivos en los que la agresividad se limita a la defensa, incluso se afirma que *somos la resistencia*.

***Inmigrantes salvajes, independentistas golpistas, medios fake* (*los otros*)**

Como muestran las tablas 7 y 8, se han identificado 97 metáforas referidas a la categoría de los otros. Las principales metáforas para hacer referencia a este conjunto son las bélicas que aparecen en el 52,57%% de los casos. A mucha distancia se sitúan las metáforas religiosas, un 10,30% del total, las de Naturaleza/Tiempo, con el 6,18% y las de Viaje/Camino/Movimiento, con el 5,15%. Las metáforas bélicas son relevantes sobre todo en la campaña de abril (con un 57,74%). En la campaña de noviembre también son numerosas pero el porcentaje desciende hasta el 38,46%.

Como muestra la figura 11, la metáfora bélica más común en este ámbito es la que identifica a los independentistas como *golpistas*. La narrativa que predomina es la que considera que las acciones de los independentistas suponen un *golpe de estado* contra España. De hecho, esta es prácticamente la única forma en la que se hace referencia al entorno independentista (40 de las 62 metáforas referidas a este grupo provienen del campo metafórico bélico). Esto se evidencia en numerosos tweets tanto en la campaña de abril como en la de noviembre. También es un recurso que aparece en perfiles de todo tipo, incluso en los de los líderes de otros partidos políticos. Considerar que los inde-

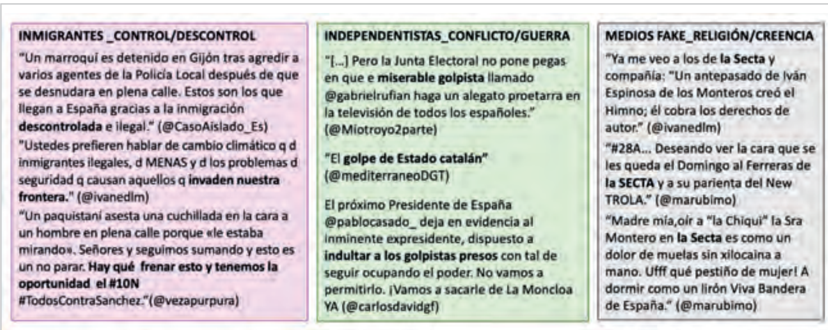

Figura 11. Mapa conceptual de "los otros"

pendentistas han perpetrado un golpe de Estado hace que se les considere unos *traidores*, *enemigos* de España a ellos y, por extensión, a quienes pactan o se relacionan políticamente con ellos.

En relación a los medios de comunicación, la metáfora más habitual es la que identifica a la cadena de televisión *La Sexta* con una *secta*, por lo tanto, se trataría de una metáfora religiosa que transmite una visión negativa sobre esta emisora de televisión dado que comporta considerarla una comunidad cerrada que ejerce un poder absoluto sobre los adeptos.

Dentro de este grupo, 9 metáforas hacen referencia a la inmigración y a los inmigrantes, por lo tanto, no fue uno de los colectivos que protagonizaron las campañas de 2019. El ámbito metafórico más utilizado para hacer referencia a este colectivo es el del Control/Descontrol (4 metáforas). El escenario que se plantea es que la inmigración debe ser *controlada* porque de lo contrario supone un *peligro* para España y para los españoles. La visión de la inmigración se completa con diversas metáforas bélicas (3 metáforas) que connotan negativamente este colectivo al tildarlo de *invasor* o incluso de *escoria*. De esta visión se deduce el uso de una metáfora de movimiento para justificar que hay que *frenar* esta invasión.

***España no se rompe* (*La auténtica patria*)**

Las principales metáforas para hacer referencia a la auténtica patria pertenecen, por un lado, al *source domain* de la mecánica y la física y, por otro lado, se trata de personificaciones, ambas con porcentajes muy similares (un 29,15% y un 24,27% respectivamente). Tras estos dos campos metafóricos se sitúan las metáforas bélicas (12,62%) y las referidas al juego/deporte (9,7%), al movimiento (8,73%) y las que consideran España como un contenedor (7,66%). En relación a cada una de las campañas, en la campaña de abril predominan las personificaciones (30%) mientras que en la de noviembre las metáforas físicas son las más habituales, con un 45,45%.

El análisis de la comunidad online muestra que las metáforas más utilizadas para referirse a la patria tienen que ver con la física y se concretan en la amenaza de que España se *rompa* y en la necesidad de mantenerla *unida*. Los culpables de esta posible ruptura son Pedro Sánchez y los independentistas. Se trata de un conjunto de metáforas que se han detectado sobre todo en los perfiles ciudadanos (aunque no solo en ellos) y que se emitieron de manera equilibrada en ambas campañas. Ante esta situación, España adquiere cualidades humanas (mediante la personificación) para *decir basta*, *ponerse en pie* y *defenderse* de los que la quieren romper. Así, gran parte de las personificaciones se combinan con metáforas bélicas que, como se ha visto, son las terceras más habituales en los tweets analizados.

Como muestra la figura 12, también tienen cierta importancia las metáforas familiares que definen a *Vox* como una *familia* que *protege* a los españoles. Esta mima idea de *familia* se manifiesta en la metáfora en la que *Vox* aparece como la *casa común* de los que *aman* España. Se trata de un escenario menos agresivo porque pretende agrupar a los seguidores de la formación.

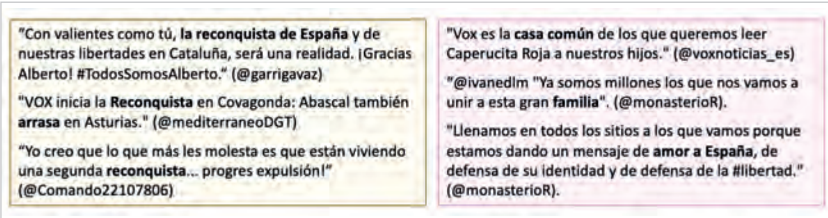

Figura 12. Mapa conceptual de "la auténtica patria"

6. Discusión y conclusiones

El presente estudio buscaba dar respuesta a las dinámicas discursivas de *Vox* y de su comunidad online durante las campañas electorales de 2019. En este sentido, quería determinar si el discurso de la formación promovía un marco de comunicación populista en el sentido establecido por **Aislanidis** (2015), **Engesser** *et al.* (2017), o **Jagers** y **Walgrave** (2007) (O1) y ver si esta estructura era replicada por los perfiles más influyentes de su comunidad online (O3). Para ello era preciso identificar cómo se había estructurado la red de retweets en *Twitter* a nivel morfológico durante las campañas de 2019 (O2).

Tras analizar en profundidad las expresiones metafóricas más frecuentes, puede establecerse que la campaña de *Vox* en *Twitter* reprodujo una estrategia de comunicación fundamentada en la aplicación de los presupuestos populistas, que se estructura a partir de los siguientes marcos metafóricos: (1) La *dictadura progre* (la élite) contra (2) la *España del pladur* (la gente – *el In Group*) que se define por oposición (3) a quienes la amenazan –*salvajes*, *golpistas y* medios *fake/sicarios* del poder– (el *Out Group*) y que comparte con el partido el deseo por una (4) vuelta a la auténtica patria –la de la *marea* patriótica y la *reconquista*. Así, los resultados de esta investigación muestran que en el contexto de las campañas electorales de 2019 y en línea con lo expuesto en el marco teórico *Vox* podría considerarse un partido político populista.

> El discurso de *Vox* y de su líder en *Twitter* se articula a través de marcos metafóricos que siguen la estructura de la comunicación populista. Así, la *dictadura progre* (la élite) está en contra de la *España del pladur* (el *In Group*) que se define por oposición a quienes la *amenazan –salvajes*, *golpistas* y medios *fake* (el *Out Group*)– y que comparte con el partido el deseo de *reconquistar* la auténtica patria

Asimismo, el estudio de las 892 metáforas identificadas en el análisis de los líderes de influencia revela que estos marcos metafóricos fueron asumidos en cierta medida por los perfiles que lideraron la conversación en su comunidad, aunque con algunas variaciones. Sin embargo, el porcentaje de metáforas referidas al marco populista es menor y las expresiones metafóricas detectadas en el discurso de *Vox* sólo se trasladan parcialmente al discurso de los líderes de influencia. Esto puede deberse, tal como indican los resultados de O2, a la variedad de perfiles que componen la muestra. Este hallazgo, que pone de relieve que la esfera pública virtual se estructura a través de comunidades líquidas, que cambian su configuración en función del asunto discutido (**Grau-Masot**, 2018), y cuestiona la idea de una comunidad homofílica que se configura en términos de una cámara de eco. Por el contrario, la morfología de la red general durante las dos campañas analizadas (figuras 5 y 6) denota que existe una fuerte polarización y es consistente con lo que señalan **Guerrero-Solé**, **Mas-Manchón** y **Aira** (2022) en relación a la incursión de *Vox* en *Twitter*.

> La comunidad de *Vox* en *Twitter* reprodujo la estrategia populista estructurada a partir de marcos metafóricos que compartían similitudes con el partido, aunque introdujo algunas variaciones en la definición de la élite conformada por los *enemigos* de España y en la de la auténtica patria que debe mantenerse *unida* ante los intentos de *romperla*

La estrategia de Santiago Abascal y de *Vox* en *Twitter* ha sido estudiada por autores como **Pérez-Curiel** (2020) en las elecciones europeas de 2019 y **Pérez-Curiel** y **Rivas-de-Roca** (2022) en el contexto de las elecciones a la presidencia de los Estados Unidos de 2020. **Rivas-de-Roca**, **García-Gordillo** y **Bezunartea-Valencia** (2020) han analizado la influencia del partido de extrema derecha en la campaña de las elecciones al parlamento andaluz de 2018. Estos estudios se centran en cuestiones como los temas promovidos por los actores políticos de *Vox* y el grado de traslación de su agenda temática a otras formaciones o a los medios de comunicación. También en la interacción generada por los tweets, aunque esta se evalúa de modo cuantitativo a través de mecanismos como el retweet o la mención. La apuesta de la presente investigación por una aproximación cualitativa al contenido generado por los líderes de influencia en la red de retweets completa el conocimiento sobre el grado de asimilación de la estrategia electoral de *Vox* por parte de su comunidad online. También los resultados derivados de O2 arrojan luz sobre el funcionamiento de dicha comunidad y pueden trasladarse a otros contextos.

Por otro lado, pese a que el populismo se ha convertido en un tema bastamente estudiado en los últimos años, existe poca literatura sobre el funcionamiento o la articulación de las metáforas en el discurso populista. En este artículo, se plantea que la capacidad de condensación del significado de la metáfora y su potencial para generar nuevas conceptualizaciones para reenmarcar temas políticos (**Santa-Ana**, 1999) hacen que sean de utilidad para el discurso populista en *Twitter*, puesto que favorecen la economía de la atención y se amoldan a las características del lenguaje populista (**Charaudeau**, 2009). Si, como sostienen **Manfredi-Sánchez**, **Amado-Suárez** y **Waisbord** (2021), en el discurso populista en *Twitter* el dato es menos relevante que la narrativa, es preciso señalar la importancia que el uso de marcos metafóricos adquiere cuando se trata de legitimar la ideología de la extrema derecha populista ante la opinión pública.

En esta investigación se detectan diversas limitaciones.

En primer lugar, el hecho de centrarse en el análisis de campañas electorales puede condicionar los resultados obtenidos, dado que la comunicación que llevan a cabo los partidos en estos períodos está marcada por la legislación electoral.

En segundo lugar, del mismo modo que las campañas electorales marcan la comunicación de los partidos, también pueden hacerlo con el modo en el que el discurso de *Vox* se difunde entre su comunidad. La presencia de una estrategia electoral marcada y de la movilización partidista puede condicionar cómo se reproducen los marcos metafóricos.

En tercer lugar, los resultados pueden estar limitados por el hecho de que sólo se han analizado los 50 perfiles más influyentes de la comunidad (25 por cada campaña). Sería necesario observar si la estrategia de difusión se mantiene si se amplía el análisis a una mayor cantidad de perfiles.

Por último, en la investigación no se ha tenido en cuenta la dirección en la que circulan los marcos metafóricos. Esto es, se ha partido de la base de que las metáforas eran usadas por *Vox* como parte de su estrategia electoral y replicadas por su comunidad, pero no se ha observado si alguna de las metáforas usadas por los perfiles era recogida posteriormente por la formación para integrarla en su comunicación.

Futuras investigaciones podrían centrarse en el análisis del discurso de la formación fuera de períodos electorales con el objeto de determinar si se mantienen los mismos marcos metafóricos o no y para observar cómo se conforma y se comporta su comunidad online a la hora de diseminar estas estrategias discursivas. Por otro lado, sería interesante estudiar si la presencia de *Vox* en las instituciones puede hacer que el partido limite el uso del marco populista en su comunicación o si bien, siga intensificando su uso dado el rédito electoral obtenido hasta el momento.

> En ambas elecciones la comunidad online de *Vox* aparece alineada con otros partidos de derecha, con medios de comunicación y con la ciudadanía, pero, en términos de morfología de la red, está mucho más polarizada en la campaña de abril

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Twitter content curation as an antidote to hybrid warfare during Russia's invasion of Ukraine

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Abstract

Concern regarding information disorders has been magnified by the proliferation of social networks. Since its occupation of Crimea in 2014, Russia has been spewing disinformation both inside and outside its borders, giving rise to a hybrid conflict, which since 24 February 2022 has become an invasion. Faced with this flood of malicious information on social networks, fact-checkers assume the role of content curators, relying on contextualization, verification, and literacy improvement to reduce such noise. This work studies the *Twitter* activity of three Spanish fact-checkers (*Newtral*, *EFE Verifica*, and *Maldito Bulo*), to fight this new epidemic of disinformation. The sample (n = 397) was subjected to content analysis to study the evolution of the verifications and their reaction capacity, the purpose of their activity, the formats in which the content is presented, and their distribution and interaction as revealed by reactions on *Twitter*. The results reveal a rapid, albeit repetitive, response of the fact-checkers to the invasion, support from them to end the internationalization of hoaxes, a reliance on denials and contextualization rather than literacy improvement, unattractive formats, and a distribution and impact that demonstrate a greater reaction to sensational and emotive content.

Keywords

Disinformation; Misinformation; Fake news; Hoaxes; Verification; Hybrid warfare; Social media; Media; Journalism; Media literacy; Content curation; Ukraine; Russia; *Twitter*.

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1. Introduction

Russia's invasion of Ukraine has once again upset global geopolitics by fostering a resurgence of the Cold War and a geostrategic contraction toward a new, bipolar world, in which disinformation has become an

> "asymmetrical and indirect military method" (**Milosevich-Juaristi**, 2017).

On 19 February, in an interview with the *EFE Agency*, the Spanish Defense Minister Margarita Robles warned of the disinformation component in the tensions resulting from what was then a crisis between Russia and Ukraine:

> "There is a situation of a lot of misinformation, of psychological warfare, so without lowering our guard at any time, this firm and determined commitment through the diplomatic channel requires that we all show responsible prudence with continual evaluation of the situation, avoiding the generation of any kind of alarmism" (*EFE*, 2022).

Despite warnings from the USA, no one could have imagined that, just five days later, Russia would invade Ukraine and the first European war of the twenty-first century would begin, a hybrid war that had already begun with the Crimean crisis in 2014 and in which disinformation would be used as a weapon of war and social networks as endless trenches, destabilizing and delegitimizing governments, provoking distrust, polarizing public opinion, and undermining democratic models.

Hybrid warfare is managed chaos. This starts with a virus that subverts the social system of the target state. Then, if its unconventional pseudo-military mobs and vanguards (for example, individuals from the *Pravy Sektor*) fail to seize power by force or intimidate the government into abdicating, a real but unconventional war begins (**Korybko**, 2018).

Such fourth-generation wars merge traditional physical wars based on heavy artillery with psychological warfare (**Baqués**, 2015), through control and information censorship, but also by the distribution of false, decontextualized, or misleading information through media or social networks to demoralize the opponent by disrupting their discourse or fabricating one's own to achieve greater power.

Against the background of this dilemma, this study focuses on the potential of fact-checkers to alleviate the danger from disinformation in times of social vulnerability. In this regard, we analyze the role of the main Spanish fact-checking organizations, *Maldito Bulo*, *Newtral*, and *EFE Verifica*, on the social network *Twitter*, as possible curators of information disorders circulating from the days before the invasion and during the siege of Kiev. Meanwhile, we also study the rise and the reaction capacity of these fact-checking agencies, which are even working in a coordinated manner during the conflict through the interactive portal #UkraineFacts, developed by *Maldita* and promoted by the *International Fact-Checking Network* (*IFCN*).

> "The hybrid war had already begun with the Crimean crisis in 2014 in which disinformation was used as a weapon of war and social networks as endless trenches"

1.1. Misinformation, disinformation, and malinformation as weapons of war

Intentional disinformation and the circulation of false information have become a major problem in the twenty-first century (**Castillo-Riquelme** *et al.*, 2019), in a context in which post-Internet technologies have

> "modified the very nature of collective interpersonal communication" (**Del-Fresno-García**, 2019).

The very conception of disinformation itself is thus subject to constant evolution, subdividing it into three distinct categories of misinformation, disinformation, and malinformation, depending on to its intentionality, level of truth or falsehood, possibilities of use, and strategic elements (**Wardle**, 2017). Firstly,

> "Inaccurate information (or misinformation) can mislead people whether it results from an honest error, negligence, unconscious bias, or (as in the case of disinformation) intentional deception" (**Fallis**, 2014, p. 1).

Disinformation corresponds to defective information processing as a result of a lack of objectivity (propaganda), integrity, or information pluralism (censorship) (**Floridi**, 2011). Finally, malinformation can be defined as real information that is distorted with a clear intention of harming a person, organization, or country, thus

> "'malinformation' requires both intention and equivalence and often involves a repurposing of the truth value of information for deceptive ends" (**Baines**; **Elliott**, 2020, p. 12).

During the waves of the Covid-19 pandemic and the corresponding vaccination period (**Morejón-Llamas**, 2022), this contamination of the public discourse has intensified in a context in which distrust and polarization are perceived in the media (**Masip**; **Suau**; **Ruiz-Caballero**, 2020), leading to a need for units beyond the media conglomerates to verify content (**Aguado-Guadalupe**; **Bernaola-Serrano**, 2020; **Catalán-Matamoros**, 2020; **García-Marín**, 2020; **Gutiérrez-Coba**; **Coba-Gutiérrez**; **Gómez-Díaz**, 2020; **López-Pujalte**; **Nuño-Moral**, 2020; **Noain-Sánchez**, 2021).

The activity of such fact-checkers becomes relevant in situations of uncertainty, since it is during such economic, political, social, and health crises that disinformation emerges exponentially (**Aparici**; **García-Marín**; **Rincón-Manzano**, 2019; **Aleixandre-Benavent**; **Castelló-Cogollos**; **Valderrama-Zurián**, 2020; **Salaverría** *et al.*, 2020; **Sánchez-Duarte**; **Magallón-Rosa**, 2020; **Rodríguez-Pérez**, 2021). In fact, its link to the political field has become a broad field of study during the last decade (**Allcott**; **Gentzkow**, 2017; **Wintersieck**, 2017; **Coromina**; **Padilla**, 2018; **Young** *et al.*, 2018; **Rodríguez-Andrés**, 2018; **Pérez-Curiel**; **Velasco-Molpeceres**, 2020).

Disinformation as a weapon of war is intended to hinder and complicate international relations, undermine the trust of citizens in their leaders and institutions, and discredit opposing political thoughts or approaches. From the end of the Tsarist era and with the Bolshevik Revolution of 1917, disinformation became a central pillar of the propaganda produced by the Soviet Union. In 1919, under the umbrella of the *Comintern*, disinformation was used to reinforce the Soviet image while weakening and distorting the Western one. During the Cold War, in a polarized and confronted world, disinformation acquired greater importance and was used as a weapon of war, with the *KGB* assigning specialized agencies to such actions through *Department D* (*disinformatsiya*) (**Colom-Piella**, 2020). This service, launched in 1959, acted not only in the USSR but also, from 1963, in satellite countries such as East Germany, Hungary, Poland, Czechoslovakia, and Bulgaria, with the aim of

> "discrediting the USA and the capitalist countries, thereby achieving the establishment of communist systems throughout the world" (**Rodríguez-Andrés**, 2018, p. 233).

Three disinformation fronts emerge from the Kremlin (**Milosevich-Juaristi**, 2017): domestic disinformation (aimed at Russian citizens), disinformation for neighboring countries (especially those territories that were former Soviet republics), and disinformation as an "alternative point of view," aimed at Europe and the USA. Regarding the disinformation disseminated towards neighboring and satellite countries, the author points out that the discursive axes refer to the absence of human rights, the lack of security for citizens, and liberal democracy, messages that can achieve penetration in a context in which the main Western actor, *NATO*, exhibits clear incapacity, given the ongoing crises since 2008: the economic crisis, migration crises, Brexit, and now Covid-19. The aim is to hinder the desire of former Soviet republics to join *NATO*.

The case of Ukraine is paradigmatic because it reflects three types of disinformation messages aimed at Russia's neighbors: (1) the annexation of Crimea and the war in Donbas are justified by the need to protect Russians threatened by the "fascist" government of Kiev, (2) Ukraine is defined as a "failed state" and a "semi-sovereign" subject, and (3) the West is to blame for provoking a "civil war" in the country (**Milosevich-Juaristi**, 2017, p. 4).

These chaotic and systemic wars take advantage of the potential of technology and the virality of social networks (**Mehta** *et al.*, 2021), artificial intelligence, algorithms, troll farms such as the *Internet Research Agency* (*IRA*), hackers, and bots (**Diresta** *et al*., 2019; **Xifra**, 2020), favoring a long-lasting state of confusion in public opinion and exacerbating the difficulty in accessing truthful information (**López-Rico**; **González-Esteban**; **Hernández-Martínez**, 2020), since the thin line that separates information from disinformation and propaganda becomes turbulent during such a situation of tension (**Betancurt-Betancurt**, 2004). The recognized capacity of social networks since the Arab Spring and the 15M terrorist attack in Spain (**Morejón-Llamas**, 2014) has been observed once again during the Russian invasion of Ukraine by redirecting political and military tactics.

Disinformation, which is characterized by its intentionality, manipulation, deception, and lies (**Rodríguez-Andrés**, 2018), is thus a weapon of war that has managed to increase nonhegemonic states (**Baqués**, 2015) by applying methods that combine

> "disinformation with propaganda, media manipulation (insertion of false news), and information manufacturing (falsifying sources)" (**Colom-Piella**, 2020, p. 474).

This includes the use of clandestine media, proxies, front organizations, opinion leaders, as well as economic or social manipulations.

The approach to combat this disinformation has resulted in information silence and censorship at the Kremlin's behest, but also by the West, which after rejecting a military intervention by *NATO*, opted for economic, cultural, and media sanctions that have punished Russia by isolating it both culturally (through the withdrawal of *Disney* and *Netflix*, for example) and informationally, with the majority of international media having left the country owing to the lack of freedom of expression (with the exception of the *BBC*, which continues its broadcasts). In this context, and since the early days of the conflict, various Russian media such as *Russia Today* (*RT*) and the *Sputnik* agency, which had already been accused of propagating disinformation, have been closed (**Elswah**; **Howard**, 2020), in addition to bans on social networks such as *Twitter*, *TikTok*, and *Facebook*. This harsh censorship policy is accompanied by the fact-checking activity of various national and international organizations that compete to curate information, while other authors rely on artificial intelligence (AI) to mitigate the impact of fake content.

Disinformation as a weapon of war is intended to hinder and complicate international relations, undermine the trust of citizens in their leaders and institutions, and discredit opposing political thoughts or approaches

1.2. Content curation, fact-checking, and collaboration during the invasion

The activity of fact-checkers during periods of political and social destabilization has been a fertile field of study for researchers, who have focused mainly on their ability to position fact-checking as a necessary tool to overcome disinformation, contextualize facts, and provide resources that contribute to media literacy. Fact-checking is a professional practice and a new journalistic genre (**Graves**, 2018) that advocates content curation (**Guallar** *et al.*, 2020), monitoring of the public discourse (**Palau-Sampio**, 2018), and a reduction in the polarization and warping of public opinion (**Morejón-Llamas**, 2021) to revitalize democracy and rebuild journalistic credibility (**López-Pan**; **Rodríguez-Rodríguez**, 2020), while proudly demonstrating the transparency and rigor (**Humprecht**, 2019; **Rodríguez-Pérez**, 2020) that legitimize this innovative professional practice (**Lotero-Echeverri**; **Romero-Rodríguez**; **Pérez-Rodríguez**, 2018; **Ireton**; **Posetti**, 2018; **Mena**, 2019).

Content curation (CC), understood as the task of filtering and spreading digital content to provide informative value (**Guallar**; **Leiva-Aguilera**, 2013), applies

> "a wide range of activities related to (1) searching, (2) monitoring and management, (3) selection, (4) analysis and verification, (5) editing, and (6) spreading of content of social interest from the web" (**Codina**, 2018, p. 3).

Twitter provides the ideal space for CC to improve the journalistic quality on social networks thanks, in part, to the appearance of new possibilities, such as the use of conversation threads (**Guallar**; **Traver**, 2020). CC is thus understood as both a process and a product. Content curation includes the tasks of confirming and verifying information and thus the denial of rumors:

Sharing such actions and showing interest in publishing and/or recommending truthful content to one's *Twitter* audience can positively promote one's personal brand. In this sense, it provides an added value of separating the wheat from the chaff in a context marked by an overabundance of available information. (**López-Meri**; **Casero-Ripollés**, 2017, p. 68)

Fact-checkers publish two main types of content, resulting from a process of constant verification and curation:

- The mostly highly valued fact-checking content is information verification, i.e., indicating whether it is true or false, or the degree of falsehood. In this case, the curation activity consists of ex post verification of information that is already published as well as its acceptance or rejection.
- The explanation or presentation of facts or issues on the basis of existing evidence obtained by consulting sources. In this case, the curation corresponds to the most commonly used meaning of the term, that is, explaining or commenting on a topic or fact on the basis of a selection of digital content.

Fact-checking aims to improve the quality of information, especially on social networks (**Molina-Cañabate**; **Magallón-Rosa**, 2020), where discourses are viralized through the immediacy and emotionality (**Ibáñez-Fanés**, 2017) that prevail in the current, post-truth era, thus becoming a real challenge for both media and active audiences (**Ufarte-Ruiz**; **Peralta-García**; **Murcia-Verdú**, 2018; **Tuñón-Navarro**; **Sánchez-del-Vas**, 2022), especially when such disinformation refers to political issues (**Uscinski**; **Butler**, 2013; **Allcott**; **Gentzkow**, 2017). Despite the obstacles that may be encountered, fact-checking is growing at a dizzying rate, as indicated by the Duke Reporters' Lab, which reports 341 fact-checkers across 105 countries (**Stencel**; **Luther**, 2021).

> Disinformation circulating on social media about the Russian invasion of Ukraine represents a continuation of the strategy applied by the former Soviet republic since the beginning of the twenty-first century

The Russian invasion of Ukraine on 24 February was accompanied by a wave of misinformation that has caused concern in the international community. In particular, fact-checkers quickly predicted a flood of false information, which has indeed materialized through the decontextualization and production of videos, photographs, and various types of social media posts. In such posts, one can see information manufactured using war films, video games, or images and videos from previous conflicts. From this perspective, and with a clear commitment to collaborative fact-checking (**Sánchez-González**; **Sánchez-Gonzales**; **Martos**, 2022) that already exploded during the Covid-19 crisis to fight against the internationalization of hoaxes, *Maldita* considered it necessary to create an international database (#UkraineFacts) to streamline the procedure and minimize transnational distribution.

#UkraineFacts is the result of information supplied by more than 100 fact-checkers around the world, and just three days after its launch, it already included "more than 300 entries from checkers in 35 countries" (*Maldito Bulo*, 2022). The need for this project lies in a new problem detected by *Maldita*, i.e., the immediacy with which disinformation regarding the invasion of Ukraine circulates internationally, as opposed to what happened with Covid-19 hoaxes, which took weeks to spread internationally. For this reason, they recognize that a collaborative effort is needed to measure timescales and accelerate verification activity, to combat the virality of the internet. As pointed out by *Maldito Bulo* (2022),

> "Disinformation about Ukraine is viralizing in disparate parts of the world at the same time. Disinformation that circulates on the same day in 17 countries at once."

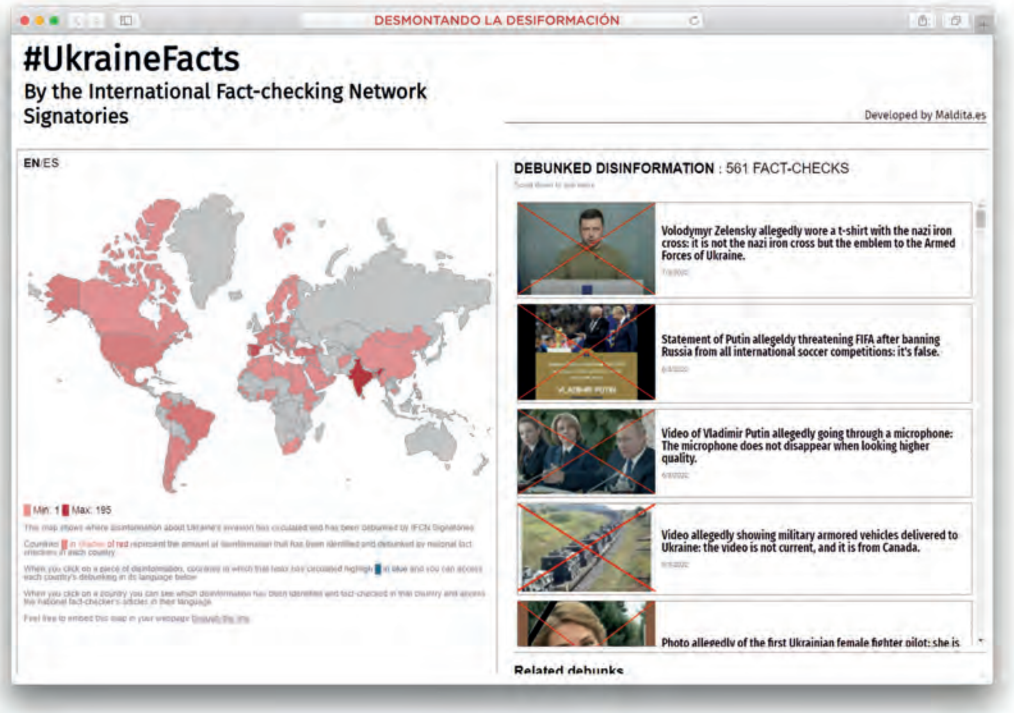

Figure 1. Interactive map of the #UkraineFacts collaborative verification project
Source: *https://ukrainefacts.org*

This database is supported by the signatories to the *IFCN Code of Principles* and is presented as an interactive map (Fig. 1) that enables access to verifications by country, thereby providing an understanding on a global scale of the circulation and transnational nature of disinformation about the invasion. The website presents an overlay of the verification units denied by the fact-checkers involved in the project on an interactive map. The amount of disinformation disseminated in each country is indicated by red tones, while countries in which specific information (selected in the timeline) circulates are shown in blue. Likewise, by clicking on the disinformation, one can access the articles that verify the content.

2. Methodology

The working hypothesis starts from the increase in disinformation about the Russian invasion of Ukraine on social networks such as *Twitter*, *Facebook*, *Instagram*, and *TikTok*, as well as *WhatsApp* and *Telegram*. In this context and considering the work of fact-checkers during the Covid-19 crisis, it seems appropriate to consider that, in this context of high vulnerability, they will also exert efforts to curate and verify disinformation. To understand this phenomenon, we thus ask:

Q1. How have fact-checkers acted, and to what extent have they accelerated their rates of verification following the start of a war that has being experienced live via social media?

Q2. What was the aim of the posts on their *Twitter* profiles during the Russian invasion of Ukraine?

Q3. Which strategies are applied by fact-checking organizations to inform users on this social network about content containing disinformation?

Q4. Does the level of acceptance and distribution enjoyed by these verifications make them efficient in the fight against the virality of disinformation?

The main objective of this study is to carry out a comparative analysis of the activity and impact of the accounts of the fact-checking organizations *Maldito Bulo*, *Newtral*, and *EFE Verifica* on *Twitter* during the early days of the Russian invasion of Ukraine, to understand the ability of these fact-checkers to curate content via their social media accounts. We also set ourselves the following secondary objectives:

O1. To define the evolution of the verifications and confirm the ability to react to a war with a high disinformation component based on propaganda and hoaxes.

O2. To analyze the resources and activity of the fact-checkers as content curators and media literacy improvers.

O3. To outline the pattern of presentation of such information based on the discourse, format, and graphics used.

O4. To understand the impact of their posts through the retweets, likes, and comments generated in the *Twitter* community.

These objectives are achieved by applying the content analysis methodology (**Bardin**, 1977; **Piñuel-Raigada**, 2002; **Krippendorff**, 2004) based on a comparative case study that enables quantitative, qualitative, and discursive measurement of the information produced by the selected fact-checkers.

The main limitation of this work is the ongoing nature of the conflict, which was still occurring while this study was being prepared. Therefore, our intention is to offer an approach to the study of disinformation in the early days of the invasion of Ukraine, since the study of communication is pertinent during the first days of a crisis. In this sense, various authors (**González-Herrero**, 1998; **Fita**, 1999; **Almada**, 2009; **Micaletto-Belda**, **Lasso-de-la-Vega**; **Marín-Dueñas**, 2016; **Micaletto-Belda**; **Sanz-Marcos**, 2019; **Martín-Herrera**; **Micaletto-Belda**, 2021) have pointed out that the start of an event of these characteristics represents one of the most important phases of the communicative management of a crisis. Citizens will be deeply concerned about the situation and will demand that media supply up-to-date information about the events, which they will try to obtain in any way.

> The approach to combat this disinformation has resulted in information silence and censorship at the Kremlin's behest, but also by the West

2.1. Sample selection

The selected sample (*n* = 397) corresponds to an analysis of the *Twitter* profiles of the three fact-checkers chosen for this work: @malditobulo, @Newtral, and @EFEVerifica. All their tweets referring to Ukraine and Russia were extracted, as well as those by international organizations such as the European Union (EU), North Atlantic Treaty Organization (NATO), United Nations (UN), and Government of Spain. The sample ranges from 21 February 2022, the first day on which a tweet about the conflict was detected, until 28 February, the day on which the first round of negotiations between Russia and Ukraine began, after which the Ukrainian President Volodymyr Zelensky requested his country's urgent accession to the EU.

The criteria for selecting the topic are based on the interest aroused by the disinformation war in Ukraine and the reactions of journalistic institutions, organizations, and professionals to mitigate the aims of hoaxes about the invasion. The *Twitter* social network was chosen because this platform is characterized by wide debate on political issues while also exhibiting virality and replication of disinformation through false profiles, impersonated identities, and bots, among other accounts, in addition to having been widely studied from the perspective of disinformation and fact-checking (**Magallón-Rosa**, 2018; **Pérez-Dasilva**; **Meso-Ayerdi**; **Mendiguren-Galdospín**, 2020).

The selection of the *Maldito Bulo*, *Newtral*, and *EFE Verifica* fact-checkers (Table 1) is based on their continuous activity since the beginning of the conflict as verification systems, as well as contextualizers and media literacy improvers, plus their remarkable work during the Covid-19 crisis, which makes them references in the field of checking false content. They are considered to be representative cases to study, in addition to having the seal of the *IFCN*, a body that monitors compliance with journalistic rigor in terms of the verification process.

Table 1. Profile of the fact-checkers on *Twitter*

	Launch	Tweets	Following	Followers
@malditobulo	November 2016	35.7K	12	294.4K
@EFEVerifica	March 2020	4.3K	32	10.5K
@Newtral	September 2017	56.3K	123	198.4K

Maldito Bulo was born from *Maldita*, which was launched in 2016 to offer "tools so they don't fool you" (*Maldita*, 2020). This nonprofit association is specialized in the field of disinformation and has given rise to several spin-offs such as *Maldita Hemeroteca*, *Maldito Bulo*, *Maldita Ciencia*, *Maldito Dato*, *Maldito Sport*, and *Maldito Feminismo*. Its main objectives are to:

- Monitor and control political discourse and promote transparency in public and private institutions
- Verify and combat disinformation
- Promote media literacy and technological tools to create a conscious community that can protect itself from disinformation and is active in all areas

Maldita is funded through private contributions from the community itself, collaborations from the media, philanthropy, and scholarships, awards, technological alliances with *Facebook*, *WhatsApp*, *Twitter*, and *Jigsaw* (*Google* incubator based on artificial intelligence), public tenders and grants, educational and training projects, and specific services for the *Junta de Andalucía*, *Banco Santander*, and as a documentary producer (*Maldita*, 2020).

The methodology applied by the fact-checking unit follows a natural process that is also carried out by other national and international fact-checkers such as *Chequeado* (Argentina), *Agencia Lupa* (Brazil), *Bolivia Verifica* (Bolivia), *Verificador* (Peru), and *ColombiaCheck* (Colombia), among others. The first step of this process, updated in May 2020, consists of selecting (according to its virality and danger) content with the potential for being false. Secondly, research and interaction with primary sources to facilitate data extraction opens the way to a debate and

> The belief that democracies would not be able to restrict the flow of information in countries where freedom of expression reigns has been found to be wrong

finally a vote to evaluate the disinformation and classify it as "hoax" or "no evidence." Facts, data, images, audios, and videos that are false or have not occurred or that have been manipulated, decontextualized, and parodied, and even tweets elaborated by an author whose identity has been deliberately supplanted, to falsify reality and misinform public opinion, are considered to be "hoaxes."

> Just as happened at the juncture studied herein, new Propaganda 2.0 models will emerge and require cutting-edge and innovative treatments as well as antidotes from content curation

Newtral is a media startup by the journalist Ana Pastor. Since its foundation in 2018, it has focused on four areas: production of programs (television and platforms), new narratives on networks, fact-checking, and artificial intelligence. Previously, in 2013, Ana Pastor's program, *El Objetivo* on *La Sexta*, already addressed content verification. In fact, they were the first Spanish signatories to the *IFCN*, in 2017 (*Newtral*, 2021). Since 2020, they have participated in *Meta*'s *Third Party Fact-checking Project* (*Facebook*) and with *TikTok* as advisors to reduce disinformation. This (*Newtral*, 2021) and prioritizes new digital narratives. Its methodology can also be divided into several phases:

- the detection of public statements or speeches of interest or relevance;
- verification through various sources, including those involved, officials, experts, other media, documentary support, etc.;
- sharing and the final decision;
- the content is qualified as truth, half-truth, misleading, or false.

EFE Verifica, which belongs to the international agency *EFE*, was launched in 2019. Its main functions are the verification of viral content and messages in different formats and the contextualization of facts that generate confusion in public opinion. They are guided by the ethical principles of the *EFE* agency, to which they apply a methodology (Fig. 4) governed by the same procedure as the aforementioned fact-checkers (selection, verification, and evaluation/review), although it lacks the last step of qualification or labeling, since

> "many of the matters on which we write are not white or black, and much of our work has grey areas" (*EFE Verifica*, 2022).

The agency has belonged to the *IFCN* since 2019 and since 2020 has participated, like its counterparts, in the *Meta* program. State-funded, the team's budget is financed from the general budget of *EFE* itself.

2.2. Analysis procedure

To study the content published on the respective *Twitter* profiles of *Maldito Bulo*, *Newtral*, and *EFE Verifica*, we prepared an analysis sheet of the *Twitter* activity of these fact-checkers, inspired by the proposal of **Magallón-Rosa** (2018), and whose purpose is to measure the evolution of the publications, study their purpose, define the resources used for their dissemination, and evaluate the dissemination and interaction with the community, as presented in Table 2.

Table 2. Analysis sheet for *Twitter* activity

Registry variables	Fact-checker Date Tweet
Purpose	Denial Expand/contextualize information Literacy improvement resources Self-promotion
Format	Image Graphic Composition Video Text Audio
Resources	Hashtags Emoticons Mentions
Semantics	Keywords Most used terms
Dissemination and interaction	Likes Retweets Comments

The registry variables enable the quantitative analysis and measure the temporal evolution of the verifications in a comparative way. Likewise, the purpose of the tweets is studied to determine their main function, considering their main purpose of verification, but without ignoring the expansion and contextualization of information to understand reality, literacy improvement resources they contribute to the development of a critical perspective among citizens, as well as self-promotion, since these organizations must take advantage of such times of greater activity to publicize themselves, since most of them rely on economic contributions from the public. The formats used (image, graphic, composition, video, text, and audio) are also analyzed, with the aim of understanding the predominant style used to present the verifications, as well as other resources used such as hyperlinks, mentions (@), hashtags, and emoticons. We also apply semantic analysis using the open-source tool Voyant Tools, which enables a textual analysis of the content and reveals the most used terms, as well as the identification of terminological trends. Finally, we observe the dissemination and interaction from the *Twitter* community through the number of likes, retweets, and comments.

The sample was analyzed and coded manually by the three authors of the study as coders using intentional, nonprobabilistic collective sampling (**Otzen**; **Manterola**, 2017). They shared their conclusions according to the values given, on the basis of a previous group interview in which they proposed the criteria and selection profiles for each variable. Simultaneously, the data were collated and studied using Excel, which we also used to produce some of the graphics illustrating this work.

3. Results

3.1. The role of Spanish fact-checkers at the beginning of the invasion

A total of 397 tweets framed in the Russian invasion of Ukraine were published by *Newtral*, *Maldito Bulo*, and *EFE Verifica* from 21 to 28 February (Fig. 2). A balance between the fact-checkers was not observed, with a predominance of *Newtral* (53.11%, 211 publications), with respect to *Maldito Bulo* (33%, 131) and *EFE Verifica* (13.9%, 55).

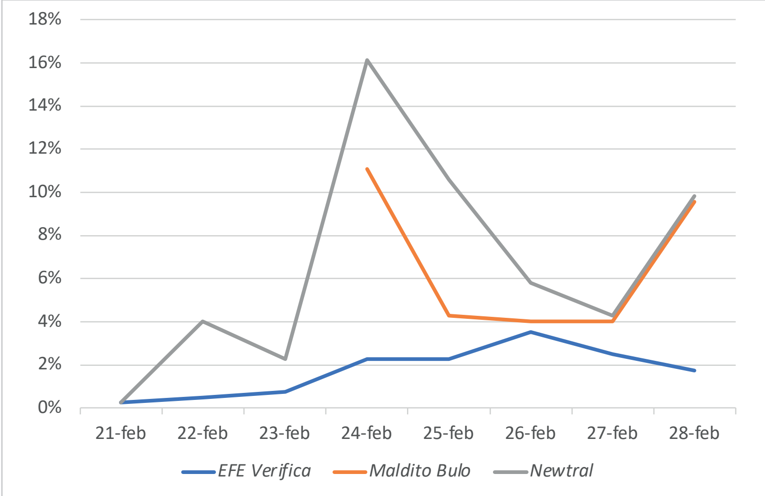

Figure 2. Evolution of the verifications by @malditobulo, @Newtral, and @EFEVerifica (21-28 February).

The daily evolution followed the course of the conflict, with publications to verify or contextualize information being practically inexistent in the preceding days. February 21 was the first day on which two tweets (0.50%) about the risk of invasion emerged. The following day, the number of posts increased to 18 (4.53%), while on 23 February (the day before the invasion), only 12 tweets (3.02%) were published. By contrast, on 24 February, the day on which war was declared, publications reached their peak, reaching 117 (29.48% of the total analyzed). The next day, the information disseminated by fact-checkers on their *Twitter* profiles almost halved, reaching 68 tweets (17.13%). On 26 February, the numbers fell again, to 53 (13.35%). On 27 February, they fell again to 43 (10.83%), while on 28 February, they doubled to 84 tweets published (21.15% of the total sample). The day on which the two delegations from Kiev and Moscow first met for discussions was 28 February.

Comparing the fact-checkers, note that *Maldito Bulo* did not start publishing until the 24th, the day of the invasion, although that day it already reached 11.09%. *Newtral*, on the other hand, led the publications from the start, reaching 4.03% on the second day. It reached its highest figure of 16.12% on 24 February. *EFE Verifica* remained fairly constant, with an average of fewer than 10 publications per day. It also started on the 21st, albeit slowly.

3.2. Content curation: Contextualization and denials

The strategy to counteract the explosion of disinformation observed during the invasion (Fig. 3) has been based on the expansion and contextualization of information (45.09%) as well as denials (47.35%). The function of improving literacy has been overshadowed, reaching only 4.28%, as has self-promotion with 3.27%.

Untangling the work of each of the fact-checkers confirms that *Newtral* is the fact-checker offering the most information (44.08%), trying to achieve its curation aims through verified, well-processed content, with rich sources and data. *EFE Verifica* expands the information in only 0.75% and *Maldito Bulo* in 0.25%. The content on which these publications is based aims to explain the roots of the conflict or present its leaders, the role played by institutions such as *NATO* and the *EC*, and the sanctions and economic, sporting, and cultural repercussions in Europe. They also provide up-to-date information on the number of attacks, the flight of refugees, the provision of humanitarian aid, negotiation processes, as well as information on nuclear weapons, cyberattacks, and technology.

@malditobulo leads in terms of the purpose of denying false information (30.23%), which in fact is the main function of this fact-checker. It is followed by @EFEVerifica (10.58%) and @Newtral (6.55%). The disinformation that is denied and classified as false corresponds to misleading videos

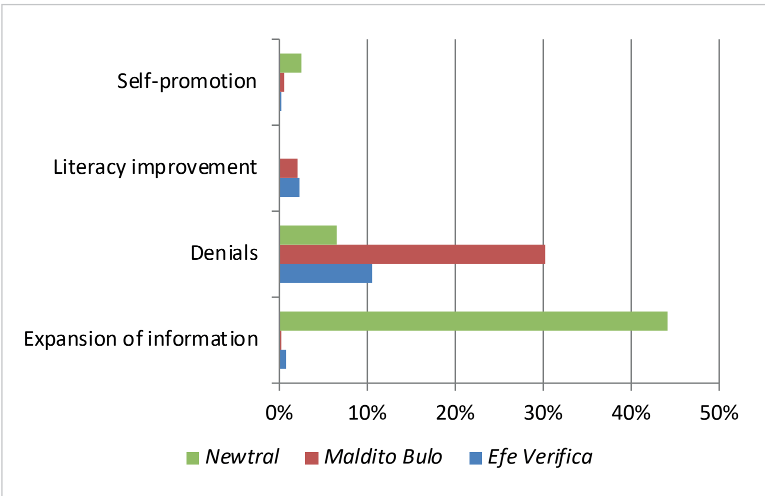

Figure 3. Purpose of the verifications issued by the fact-checkers

circulating on the internet, false statements by public figures, sensationalist images, as well as continuous hypotheses about President Zelensky's participation in the conflict, his alleged flight from the country, etc.

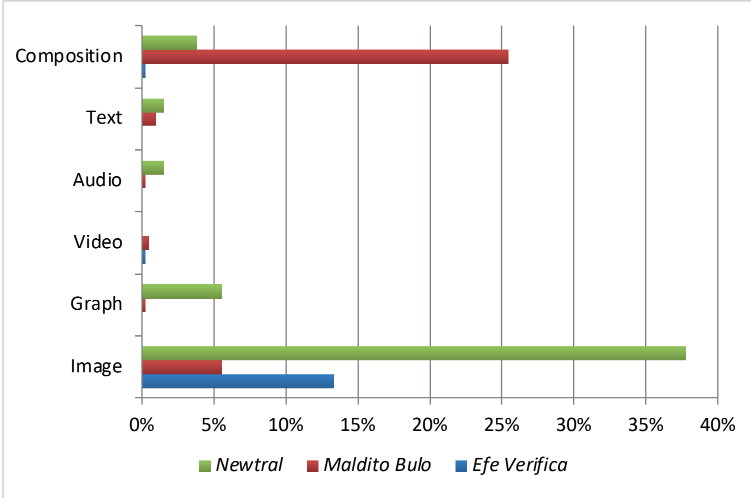

Figure 4. Presentation format of the tweets

Self-promotion, which is anecdotal, is led by *Newtral* (2.52%), alluding to the term "Ukraine," followed by *Maldito Bulo* (0.50%) and *EFE Verifica* (0.25%). Meanwhile, literacy improvement, with very few publications, is employed by *EFE Verifica* (2.27%) and *Maldito Bulo* (2.01%), which repeats in various tweets the statement "Resources to stay informed during the bombing of Russia to Ukraine and not fall for any hoaxes" ["*Recursos para mantenerse informado durante el bombardeo de Rusia a Ucrania y no caer en ningún bulo*"]. *Newtral* does not adopt this function.

Correlation of the purpose with the temporal evolution reveals that, on the 24th, the expansion and contextualization of information stood out, alongside scarce self-promotion and literacy improvement, while on 28 February, denials prevailed.

3.3. Presentation formats used by the fact-checking units

The analyzed content is presented mostly accompanied by images (Fig. 4) that complement the text (56.67%). These images are archival photographs of the presidents involved in the conflict, Putin and Zelensky, as well as senior European leaders. They also use images of flags, military weaponry, fighter jets, and, in a few publications, real photographs of the invasion. This section includes screenshots of *TikTok* videos to which a cross has been added. Photographs predominate in contextualizations and expansion of information (36.78%). Images are used in 15.37% of denials and 3.78% of those focusing on literacy improvement. *Newtral* is the fact-checker that uses them most (37.78%), compared with *EFE Verifica* (13.35%) or *Maldito Bulo* (5.54%).

The composition format (Fig. 5) refers to the creation by fact-checkers of a defined style, characterized by the presentation of the verification with the word "*Bulo*" ["Hoax"] (*Maldito Bulo*) or "Fake" (*Newtral*) superimposed on a central image that captures the news or false statement, against a background that shows the falsehood that is reported. Regarding the style, it is worth mentioning that *Maldito Bulo* applies the color red in all its verifications, while *Newtral* uses black, both being clearly distinguishable. Compositions are chosen for 29.47% of the studied tweets, in particular in 25.44% by *Maldito Bulo*, well above the figures of 3.78% for *Newtral* and 0.25% for *EFE Verifica*. All of these are denials, with no compositions aiming at expanding information, improving literacy, or self-promotion.

Graphics are used in 5.79%, always aiming to expand or contextualize information, with *Newtral* in the lead in this regard (5.54%). Textual format (2.51%), without any accompanying image or graphic, is used to expand information by *Newtral* (1.51%) and *Maldito Bulo* (1%). The use of audio (1.76%) to deny a compendium of disinformation is led by

Figure 5. Fact-checking units on the Russian invasion of Ukraine.
Source: @malditobulo and @Newtral.

Newtral (1.51%), well above *Maldito Bulo* (0.25%). Videos (3.77%) stand out in the publications by *Newtral* (3.02%), being used for self-promotion or to expand information.

> Content curation has become a primary need because contamination of the media space by Kremlin-affiliated media

Hashtags that allude directly to the invasion are used by the fact-checkers in 38.03% of cases, to position and define the content. The tags used by the three fact-checkers analyzed are: #GuerraEnUcrania, #ObjetivoGuerra, #UkraineFacts, #Rusia, #Ucrania, #Putin, #NewtralData, #SinVerificarNoRT, #MalditaLaHora, and #OSINT.

- #ObjetivoGuerra is used by *Newtral* to refer to denials and expansion of information regarding out-of-context image compilations, montages, and false information, as well as reactions from the international community to the Russian offensive and to present the invasion in map format.
- *Maldito Bulo* uses #UkraineFacts, as it leads this collaborative fact-checking initiative. They use this hashtag to deny information, as well as to offer resources to improve media literacy. In fact, on 26 February, *Maldito Bulo* tweeted: "Important: the fact-checkers at @factchecknet have launched #UkraineFacts, a global, collaborative database to fight disinformation with more than 300 fact-checker entries from 35 countries" ["*Importante: Los verificadores del @factchecknet lanzamos #UkraineFacts: Una base de datos mundial y colaborativa para luchar contra la desinformación. Más de 300 entradas de verificadores en 35 países*"]. This post was widely disseminated, attracting 108 likes and 60 retweets. However, it did not generate a conversation, as it was found in only two comments.
- #OSINT is used on several occasions by *EFE Verifica* and relates to the use of open-source intelligence to confirm data from the beginning of the conflict. While Russian media and propaganda channels announced that the presence of soldiers at the border was due to maneuvers, fact-checkers warned that these data were false and that this was actually a growing military mobilization.
- #GuerraEnUcrania is employed by *EFE Verifica* to label denials and resources for literacy improvement. We find, for example, two tweets from 24 February that address disinformation as a weapon in the conflict: "The other *#GuerraEnUcrania* is that of disinformation. Do you know what weapons are used?" ["*La otra #GuerraEnUcrania es la de la desinformación.* ¿Sabes cuáles son sus armas?"] or "Disinformation is another weapon of the #GuerraEnUcrania. Mainly manipulated or old videos or photos have been used to spread falsehoods since the beginning of the crisis in Ukraine and Russia." ["*La desinformación es un arma más de la #GuerraEnUcrania. Vídeos y fotos son los principales contenidos manipulados o antiguos que son utilizados para propagar falsedades desde el inicio de la crisis de Ucrania y Rusia*"].
- The hashtag #Putin was only used by *EFE Verifica* on 25 and 26 March, to label his speech announcing the start of the #GuerraEnUcrania.
- #NewtralData, #cover, #streaming, and #MalditaLaHora are the tags that *Newtral* and *Maldito Bulo* reserve for self-promotion of the respective fact-checking organization. In the case of *Newtral*, the tweets addressing the expansion of information on *Twitch* by Emilio Doménech (@Nanisimo) stand out.
- #SinVerificarNoRT is another of the tags available to *Newtral* to label audio summaries on hoaxes and viral fakes.
- The tags #Russia and #Ukraine, used by *Newtral*, relate to the countries involved in the invasion.

Tweets make use of emoticons to present their information in a more agile way on the *Twitter* social network. They predominate in information aimed at denials, as well as those discussing hoaxes and fakes, while *EFE Verifica* uses a great variety of them more consistently. Below, we represent the most prominent of these (Fig. 6), focused on five fundamental aspects: disinformation channels (1), the situation and consequences of the punishment policies that are applied (2), warnings and alerts relating to disinformation (3), countries involved in the conflict (4), and expanding information (5).

Mentions are used little by the fact-checkers in their *Twitter* accounts. The fact-checker that uses them most is *Newtral*, since it applied them for self-promotion of its content, expansion of information by its journalists, and other platforms belonging to the parent companies of these fact-checking organizations. There is also some indication of other international media that are used as sources of information or to obtain images to contextualize a tweet. One example is the mention of @nytimes by *Newtral*, but we also found others such as @Nanisimo, @DebatAlRojoVivo, @TwitchES, @MomentsES, and @ transparentia.

Figure 6. Emoticons used by @EFEVerifica, @Newtral, and @malditobulo

Hyperlinks are used in nearly all the tweets, since they link to the verification processes of the respective companies: *Maldita*, *EFE*, and *Newtral*. At one point, *Maldito Bulo* asks active members of their audience to use *WhatsApp* to request verifications:

> "Share verified information, and if you receive something suspicious, send it via *WhatsApp* and we'll review it".

On the basis of semantic analysis of the verified content between 21 and 28 February (Fig. 7), we highlight the most popular terms used by the fact-checkers in their *Twitter* profiles. First, note that the information collated in the open-source tool Voyant Tools yields a total of 10,239 words. The vocabulary density is 0.143, while the average number of words per sentence is 27.0. The most prominent terms in the corpus are: Ucrania (315), no (262), Rusia (227), ukrainefacts (70), vídeo (68), ataque (61), explicamos (57), actual (53), conflicto (53), guerraenucrania (47), militar (41), guerra (40), Zelensky (27), and Putin (27).

Figure 7. Semantic analysis of verified tweets

There is, therefore, a prevalence of Ukraine over Russia, since it is the country under attack. *Maldito Bulo* uses the negative "no" to dismantle hoaxes (**Magallón-Rosa**, 2018) and positions itself with the hashtag #UkraineFacts (70) in first place, above #GuerraEnUcrania by *EFE Verifica*.

3.4. Distribution and interaction on their *Twitter* profiles

The 397 tweets published by *Maldito Bulo*, *Newtral*, and *EFE Verifica* yielded a total of 16,288 likes, 10,258 retweets, and 860 comments. *Newtral* accounts for 43.8%, corresponding to the fact that its publications account for 53.1% of the total. Meanwhile, *Maldtito Bulo* accounts for 37% and *EFE Verifica* for 19.2%. *EFE Verifica*, despite broadcasting only 55 tweets, received 3,127 likes, while *Maldito Bulo* received 6,025 likes (Table 3).

Table 3. Reactions to the activity of the fact-checkers

	Tweets		Likes		Retweets		Comments	
@malditobulo	131	33.0%	6,025	37.0%	4,658	45.4%	268	31.2%
@EFEVerifica	55	13.9%	3,127	19.2%	2,318	22.6%	93	10.8%
@Newtral	211	53.1%	7,136	43.8%	3,282	32.0%	499	58.0%

The posts that received most likes are those from *Newtral* on 24 February. The first, attracting 1,591 likes, aimed to provide more information on the closure of Ukraine's airspace, as well as airports in the south of Russia. The fact-checker provided users with an explanation via #NewtralData. The second, which attracted 684 likes, announced the beginning of the Russian military offensive against Ukraine at the gates of Kiev and in the Donbas. *EFE Verifica* is the second fact-checker with a publication attracting more than 600 likes, in particular, 614. These likes correspond to a tweet from 27 February under the hashtag #GuerraEnUcrania that addressed the denial of a video of a father saying goodbye to his daughter, recorded during the evacuation of the civilian population to Russia, in the self-proclaimed separatist republic of Donetsk.

An update by *Newtral* on 24 February, describing the implantation of martial law in Ukraine, stands out in fourth place with 453 likes. One should also note a tweet from *Maldito Bulo* on 28 February that dismantled the fake cover of *Time* magazine with Putin converted into Hitler under the hashtag #UkraineFacts, following the launch of the collaborative fact-checking unit driven by *Maldita*. Finally, it is worth highlighting other very successful tweets by *Maldito Bulo*, such as those denying a false missile launch, which actually corresponded to the conflict between Palestine and Israel in 2021, and another about a video of Ukrainian soldiers killed in combat, which again dates from the conflict of 2014.

Maldito Bulo stands out in terms of the number of retweets achieved, reaching 45.4% compared with 32% for *Newtral* and 22.6% for *EFE Verifica*, despite only publishing 33% of the total tweets. In line with this, it is noted that the replication of tweets by *Newtral* is minimal. In this regard, the most widely shared publications are those of a father saying goodbye to his daughter (*EFE Verifica*, 477 retweets), the montage of Putin on *Time* magazine (*Maldito Bulo*, 368 retweets), the closure of the airspace (*Newtral*, 335), and that of the missiles (*Maldito Bulo*, 282). These findings highlight the direct relationship between likes and retweets.

The results for the comments follow the trend observed for the percentage of tweets, with *Newtral* accounting for 58% of the comments, followed by *Maldito Bulo* with 31.2% and *EFE Verifica* with 10.8%. However, *Newtral* does reverse here its downward trend in terms of interactions. The post that generated the most comments is the one about Putin's montage as Hitler, which reached 93 interactions for *Maldito Bulo*. *Newtral* also denied this information, on the same day, 28 February, but only received 24 comments. The tweet that elicited the second most comments (47) was a compilation by *Newtral* on 28 February that denied images out of context, compilations, false information, and manipulated speeches and in which a conversation thread was opened by the fact-checker. This is the only publication to announce the opening of a conversation thread and that generated interactions. In third place, a tweet by *Newtral* on the beginning of the military offensive on 24 February generated 28 comments.

> The Covid-19 pandemic promoted collaborative fact-checking on an international scale and the war between Russia and Ukraine has perfected it

4. Discussion and conclusions

Disinformation circulating on social media about the Russian invasion of Ukraine represents a continuation of the strategy applied by the former Soviet republic since the beginning of the twenty-first century. The strategic application of technology has created a hybrid war that is being fought, fundamentally, in the cyber field, given the potential and impact of disinformation on social networks but also because, in a political conflict or war, the line that separates disinformation from propaganda becomes diffuse (**Floridi**, 2011).

Content curation has become a primary need because contamination of the media space by Kremlin-affiliated media (**Elswah**; **Howard**, 2020) has alerted the West, international organizations, governments, and information professionals, who risk their credibility as guarantors of freedom of expression by opting for harsh censorship that silences Russia on traditional media and social networks. At this juncture, content curation on *Twitter* becomes an opportunity to "separate the chaff from the wheat" (**López-Meri**; **Casero-Ripollés**, 2017, p. 68), leading fact-checkers to maximize their efforts to verify, deny, and nurture the discourse through expanding, explaining, and contextualizing information through a selection of digital content. The fact-checker that posted most on *Twitter* was *Newtral*, followed by *Maldito Bulo* and *EFE Verifica* in descending order. Expansion and contextualization of information are predominant in their tweets, as well as denials, both being more present than literacy improvement or self-promotion.

Although all three increased their activity with the invasion, this reaction was late. Indeed, in the previous days in which confusion and disinformation reigned, there was no reference to the conflict, with neither denials nor contextualizations. Perhaps the latter could have contributed positively to the community. The pace and speed of reaction will be enhanced through projects such as #UkraineFacts. In this sense, it is evident that the Covid-19 pandemic promoted collaborative fact-checking on an international scale and that the war between Russia and Ukraine has perfected it. The exponential growth of publications on 24 and 28 February is due to the greater turmoil in international relations, which stimulated a greater production, dissemination, and viralization of disinformation, thereby increasing the actions of the fact-checkers to curate it. However, the repetition of content should also be recognized, especially regarding denials of viral hoaxes circulating in several countries simultaneously, although the expansion and contextualization of information are also repeated.

In its ability to present denials, fact-checking complies with the logical process of CC (**Codina**, 2018) in searching for, monitoring, and selecting content that must be verified, then analyzing and verifying it. *Maldito Bulo* dedicates most of its tweets to this task. As pointed out by *Maldita Educa* (2022), disinformation that requires denials includes old photos and videos that circulate as current; audiovisual content from other conflicts that is disseminated as if it were from Ukraine; false subtitles that do not correspond to the audio; video games and simulations that pretend to be real images; fragments of series or films broadcast as if they were not fiction; images that have already been used before to disinform in other contexts; false magazine covers; facts that are current but are claimed to be old to disinform; and tweets that supplant other media. The verification can be carried out using a dual process:

- The consultation of information sources: official ones (government websites, institutional profiles on social networks in both countries, the *Russian Ministry of Defense*, the *Human Rights Watch* organization), experts (historians such as Mikhail Zhirokhov or intelligence experts such as Carlos Fernández-Morán), documentary sources (such as the *Shutterstock* and *Depositphotos* image banks), media (Russian agencies such as *RIA Novosti* and *TASS*, the Ukrainian agency *RBC*, *Defense Express*, *Euronews*, the *BBC*, the *Daily Express*, *The New York Times*, etc.), and the sources involved (such as Patrick Mulder, the creator of the fake cover of *Time* magazine).
- The use of digital tools, including *Google Maps*, *Google Earth*, *Yandex*, *TinEye*, *Liveuamap* search engines, video verifiers such as *InVidVerify* (essential given the spread in *TikTok*), and metadata analysis tools such as *Metadata2go.com*.

Contextualization, led by *Newtral*, is essential to understand the strategic scope and potential of disinformation to

> "identify campaigns, predict their objectives, and limit their impact" (**Colom-Piella**, 2020, p. 479).

It is thus necessary to anticipate events and create a critical perspective in the audience to provide a solid foundation, which allows us to discern what is true and what is not, given the amalgam of disconcerting content that the citizen must face in an armed conflict or social crisis (**Baqués**, 2015). The creation of such a knowledge base also requires literacy improvement and resource provision, although this does not occur. It is striking that more resources are not promoted, since these fact-checking agencies promote projects that stimulate critical learning on their websites. We thus consider that they do not take advantage of this space or their community to publicize their capacity to improve media literacy.

> The hoaxes share an appeal to emotion, sensationalism, and drama, as if, in addition to an asymmetric war, we were witnessing a Hollywood film

The *Twitter* posts lack attractiveness and innovation in design, which reveals a lack of adaptation to the public and to the inherently audiovisual nature of the platform, which is inhabited by digital natives who demand greater interaction (**Micaletto-Belda**; **Martín-Ramallal**; **Merino-Cajaraville**, 2022). The images that accompany the texts are repetitive archival photographs that do not provide added information, and when compositions are made, they are limited to embedding the word "fake" or "*bulo*" ["hoax"], accompanied by a red cross overlaid on the image in question. What these tweets do incorporate are hashtags, mentions, hyperlinks, and emoticons to complement the text.

Despite their limited impact in terms of likes, retweets, and comments, the results highlight that the publications that generate the greatest diffusion and interaction are those that alert of political-social changes in Ukraine, as well as videos and emotional images that portray farewells or situations of vulnerability. *Newtral* is establishing itself as the fact-checker that elicits the most discussion, while *Maldito Bulo* receives the most retweets and likes. The tweet with the third highest number of likes was from *EFE Verifica*, despite having less than a tenth of the number of followers as its counterparts. All of these hoaxes share an appeal to emotion, sensationalism, and drama, as if, in addition to an asymmetric war, we were witnessing a Hollywood film loaded with emotional features that appeal to us, arouse pity, and confuse, a feeling that fits in well with the current, post-truth era (**Ibáñez-Fanés**, 2017).

The disinformation war has just begun, and the West is responding reactively to the Russia-*NATO* crisis. The belief that democracies would not be able to restrict the flow of information in countries where freedom of expression reigns (**Milosevich-Juaristi**, 2017) has been found to be wrong. It is necessary to return to a path of proactivity, to promote and emphasize resources that curate disinformation (**Guallar** *et al.*, 2020) in a hybrid war, through contextualization, verification, and literacy improvement rather than censorship. The regulation of the Internet, the application of artificial intelligence (**Flores-Vivar**, 2019), and fact-checking (**Molina-Cañabate**; **Magallón-Rosa**, 2020) are some of the approaches that can be adopted to mitigate the impact of false and decontextualized content on social networks. There is concern regarding the viralization of fake videos manufactured on *TikTok* because of their spread and the interaction elicited among a young audience that lives reality immersively (**Martín-Ramallal**; **Micaletto-Belda**, 2021), which adds credibility to the spreading hoax.

The limitations of this study include the extremely current nature of the topic, its immediacy, and the changes that are typical of any crisis. The research field that opens up in this regard is infinite at a geopolitical and informative level. The reaction of international organizations in terms of media literacy improvement and fact-checking at the international level could also be studied to promote improvement in content curation processes in contexts with extreme information dependence.

We can only wait for the disinformation panorama that will emerge in the face of two possible scenarios: the full invasion of Ukraine and consequent reprisals against its leaders and population, or the (improbable) total or partial withdrawal of Russia from the occupied territory, a situation that would involve a reconstruction of the concept of victory. It is more than probable that, just as happened at the juncture studied herein, new Propaganda 2.0 models will emerge and require cutting-edge and innovative treatments as well as antidotes from content curation.

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Comunicación mediática y social en el entorno de crisis, polarización e inconformismo colombiano

Media and social communication in the context of Colombian crisis, polarization and nonconformism

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Resumen

La industria de la comunicación en Colombia ha impulsado a lo largo de la última década un proceso de transformación y diseño de nuevas propuestas tanto en medios tradicionales como en nativos digitales, gama de estrategias operativas para distribuir formatos textuales, sonoros y visuales a través de las redes sociales, adaptando los contenidos a las particularidades y atributos de cada una de ellas. La irrupción de la implementación de los acuerdos de paz, la pandemia y el inconformismo ciudadano llevado a las calles han servido para constatar la dimensión real de esa reconfiguración, así como su efectividad en términos de credibilidad y alcance ante un escenario inédito que ha transformado la interacción social y cultural de los ciudadanos a través de la tecnología. Esta investigación centra su atención en la respuesta de los agentes periodísticos colombianos a la demanda de información durante el periodo 2019, 2020 y 2021, desde una metodología mixta cuantitativo-descriptiva que permite identificar, cuantificar y valorar la relación entre periódicos, emisoras de radio y canales de televisión con las nuevas plataformas. El corpus del estudio está compuesto por las publicaciones en redes sociales de los medios colombianos con mayor difusión según la *Asociación Colombiana de Investigación de Medios*: dos periódicos (*El tiempo* y *El espectador*), cinco cadenas de radio (*Caracol radio*, *W radio*, *Blu radio*, *RCN radio* y *La FM*) y los informativos de las dos cadenas televisivas de mayor audiencia (*Noticias Caracol* y *Noticias RCN*). Los resultados del estudio evidencian un refuerzo de la marca de la empresa periodística como referente de información y credibilidad, no obstante, la coyuntura del momento no ha servido para legitimar el papel de los periodistas en las redes sociales, y ha subrayado la fragilidad de un ecosistema mediático muy expuesto a la polarización, la manipulación y la desconfianza.

Palabras clave

Periodismo; Smartphones; Redes sociales; Medios sociales; Transformación digital; Ecosistemas mediáticos; Acuerdos de paz; Covid-19; Inconformismo social; Crisis; Polarización; Colombia.

Abstract

The communication industry in Colombia has promoted over the last decade a process of transformation and design of new proposals in both traditional media and digital natives, a range of operational strategies to distribute textual, sound, and visual formats through the social networks, adapting the content to the particularities and attributes of each one of them. The irruption of the implementation of the peace accords, the pandemic and citizen nonconformity taken to the streets have served to verify the real dimension of this reconfiguration, as well as its effectiveness in terms of credibility and scope in the face of an unprecedented scenario that has transformed the social and cultural interaction of citizens through technology. This research focuses on the response of Colombian journalistic agents to the demand for information during the period 2019, 2020 and 2021, from a mixed quantitative-descriptive methodology that allows identifying, quantifying, and assessing the relationship between newspapers, radio stations and television channels with the new platforms. The corpus of the study is made up of the publications on social networks of the Colombian media with the greatest circulation according to the *Colombian Association for Media Research*: two newspapers (*El tiempo* and *El espectador*), five radio stations (*Caracol radio*, *W radio*, *Blu radio*, *RCN radio* and *La FM*) and the news from the two television networks with the highest audience (*Noticias Caracol* and *Noticias RCN*). The results of the study show a reinforcement of the brand of the journalistic company as a reference for information and credibility, however, the current situation has not served to legitimize the role of journalists in social networks and has underlined the fragility of a media ecosystem highly exposed to polarization, manipulation, and mistrust.

Keywords

Journalism; Smartphones; Social networks; Social media; Digital transformation; Media ecosystems; Peace accords; Covid-19; Social nonconformism; Crisis; Polarization; Colombia.

1. Introducción

Actualmente la agenda informativa de los ciudadanos atiende a los contenidos propuestos por los medios de comunicación convencionales (**Martín-Barbero**, 2003), pero también a postulados de *influencers* y *fake news.* Las TIC alteran la circulación de los datos y transforman el rol de la audiencia en el proceso comunicativo (**Enli**, 2017), cuya percepción e interpretación de los sucesos está condicionada por un entorno de verdad relativa (**Vázquez-Médel**; **Pulido-Rodríguez**, 2020) marcado por la desinformación y la infoxicación (**Nielsen** *et al.*, 2020), principalmente entre las capas más jóvenes (**Pérez-Escoda** *et al.*, 2021). En un ambiente de contaminación y activismo, los *mass media* mantienen el flujo validador de los acontecimientos con productos sincrónicos que, a su vez, son distribuidos por los web-medios, los app-medios y los medi@s en los escenarios sociales (**Barrios-Rubio**, 2022; **Galit**, 2017), al tiempo que desde las redes sociales se alimenta la desinformación y el inconformismo ciudadano (**Fletcher** *et al.*, 2020).

La construcción de la realidad por parte de *influencers* y líderes de opinión distorsiona en buena parte los hechos políticos, económicos y sociales generando un descontento social que se traduce en una polarización de posicionamientos ideológicos. Si bien se observa una tendencia global en la apropiación y uso de las redes sociales, lo cierto es que cada ecosistema presenta sus peculiaridades lo que conlleva impactos diferenciales en el ámbito de la desinformación (**Fletcher** *et al.*, 2020). Ahora bien, una aproximación al uso de las redes sociales en el espacio latinoamericano –Chile 92,8%, Uruguay 90,2%, Argentina 86,3%, Perú 83,8%, Colombia 81,3%, Ecuador 81,1%, Brasil 79,9%, Bolivia 70,9%, Paraguay, 62,6%, Venezuela 53,3%– (*Statista*, 2022) permite observar cómo esa desinformación genera un descontento que se ha materializado en las protestas sociales que llevaron a los ciudadanos a las calles en Chile, Bolivia, Venezuela y Colombia. En este último país, la desestabilización democrática ha sido alimentada por falsedades que han marchado en paralelo a acontecimientos como la implementación de los acuerdos de paz, la pandemia y el inconformismo ciudadano.

Sin duda, el excesivo volumen de información que circula por el ecosistema digital golpea la fidelización, el reconocimiento, la confianza y la credibilidad del periodismo y los medios de comunicación frente a las nuevas audiencias. Bajo la presión de la inmediatez, se delinea una crisis de representación de la realidad y de las personas que no se sienten simbolizadas ni reconocidas por los medios. Su demanda de participación rompe el esquema funcional unidireccional de la industria mediática a la que se le plantea la urgente necesidad de repensar, reinventar y redefinir las rutinas productivas y los contenidos (**Romero-Rodríguez**; **Tejedor**, 2020) para mantenerse en el imaginario colectivo como un referente validador de la información.

La industria de la comunicación ha impulsado durante la última década un proceso de transformación y diseño de nuevas propuestas para integrarse en los escenarios de conectividad como una estrategia para atraer audiencia (**García-Avilés**; **Herrera-Damas**, 2020; **Barrios-Rubio**; **Pedrero-Esteban**, 2021). Además, el *crowdsourcing* ha aumentado las posibilidades de que los periodistas encuentren asuntos, consejos y conocimientos, que de otro modo pasarían desapercibidos (**Aitamurto**, 2019; **Lamprou**; **Antonopoulos**, 2020). En Colombia, el inesperado brote del coronavirus y las consiguientes medidas de confinamiento a escala global, al igual que la manifestación ciudadana llevada a las calles, han servido para verificar la dimensión real de esta transformación como también su efectividad en términos de credibilidad frente a un escenario inédito que ha transformado la dimensión social y la interacción cultural de los ciudadanos a través de la tecnología (**Pérez-Tornero**; **Pedrero-Esteban**, 2020).

1.1. Resignificación del periodismo en las redes: el caso de Colombia

La pandemia del SARS-CoV-2 ha consolidado el consumo de los colombianos en las plataformas digitales –streaming, redes sociales, entre otras– (*YanHass*, 2021), un entorno con brechas en su uso asociadas al nivel socioeconómico de los usuarios[1]. Con el smartphone como epicentro del consumo, la gratuidad se convierte en un factor fundamental para difuminar las diferencias entre los sectores poblaciones (tabla 1). Así, *WhatsApp* se ha apuntalado como la plataforma más utilizada en todas las capas socioeconómicas, una circunstancia que al igual que en otros ecosistemas ha generado un alto nivel de desconfianza en las fuentes oficiales (**Elías**; **Catalán-Matamoros**, 2020), seguida de *Facebook*. En relación con el resto de las plataformas digitales, las diferencias entre *YouTube* e *Instagram* son poco significativas, todo lo contrario, en el caso de *Netflix* y *Spotify*, que, como plataformas de pago, son más usadas por los estratos altos. Por su parte, *Google* destaca en la franja media y *LinkedIn*, es la red social con mayores diferencias en los núcleos poblacionales, posiblemente por su carácter profesional. Sorprende el bajo interés, en general, por el uso de *Twitter*, una red que mayoritariamente gira en torno a contenidos informativos (tabla 1).

> La convergencia convencional-digital en el ecosistema colombiano se aceleró para satisfacer las ansias de información de los ciudadanos sobre la crisis político-económica y sanitaria

Tabla 1. Brechas en el uso de plataformas digitales

Aplicación	Nivel socio económico		
	NSE 1 - 2	NSE 3 - 4	NSE 5 - 6
	92,2%	96,8%	93,2%
	72,2%	82,5%	90,6%
	36,7%	57,8%	70,4%
	78,7%	81,0%	85,7%
	16,1%	26,5%	42,3%
	8,2%	12,8%	18,6%
	40,5%	58,1%	65,9%
	9,8%	17,5%	29,7%
	66,5%	87,8%	85,9%

Fuente: Elaborado con datos de *YanHass*, 2021

Notas. 1) A 2021 Colombia reporta 51,07 millones de habitantes que se distribuyen por estratos socioeconómicos así: NSE 1-2 (49%), NSE 3-4 (35%), NSE 5-6 (16%) (*DANE*, 2021)

2) La tabla denota el % de penetración de cada aplicación en los diferentes estratos socioeconómicos.

Como puede observarse en la tabla 1, uno de los principales factores que determina un mayor o menor uso de algunas plataformas y redes sociales es el hecho de tener que pagar para consumir sus contenidos. Sin embargo, no es únicamente el factor económico el que determina la relación del usuario con el entorno digital ni tan siquiera la edad (*YanHass*, 2020). Del análisis propuesto por este autor, se afirma que el universo de usuarios se compone de tecno-adictos (cazadores constantes de innovaciones tecnológicas que son empleadas y explotadas en el uso cotidiano), tecno-contiguos (caminan de la mano con la tecnología aprovechando sus beneficios personales, profesionales y sociales), tecno-sociales (transitan el escenario digital de manera frívola para el contacto con comunidades, pero les produce estrés no tener internet o teléfono móvil), tecno-novel (recorre sus primeros pasos digitales con la asistencia de alguien para superar dificultades apostando por experiencias de realidad virtual), tecno-amoldados (la tecnología no es preeminente en su quehacer diario y requieren de guía para usufructuar los avances) y tecno-apáticos (distantes de las innovaciones en tecnología). A estos últimos, su alejamiento les genera profundas limitaciones y altos estándares de desconfianza (**Van-Dijk** *et al.*, 2018).

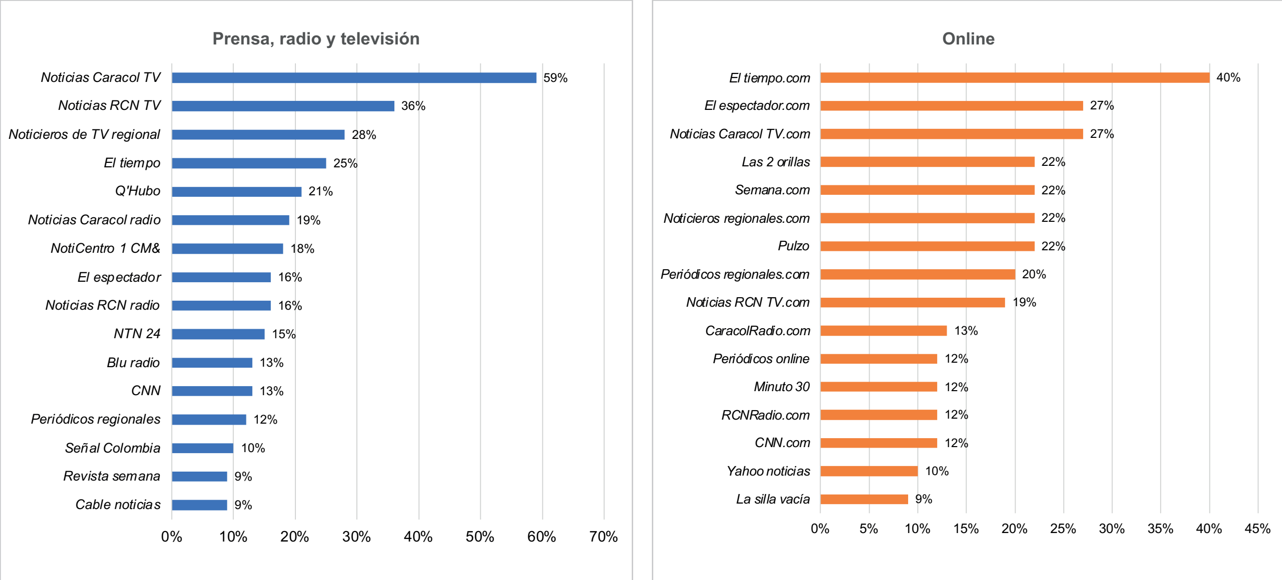

Figura 1. Consumo informativo de los colombianos. Elaborado con datos del *Reuters Institute*, 2021.

En el caso colombiano, la espiral tecnológica y social denota que el 87% de los ciudadanos se informan principalmente de manera online, siendo el 70% a través de las redes sociales (*Facebook*, 67%; *WhatsApp*, 45%; *YouTube*, 34%; *Instagram*, 28%; y *Twitter*, 18%). Este consumo es instantáneo gracias a las notificaciones y a la facilidad para compartir con los contactos propios, pero también conlleva un alto riesgo de desinformación. En todo caso, dichas cifras superan el consumo informativo de los medios de comunicación tradicionales como la TV (58%), la radio (16%) o la prensa (24%) (*Reuters Institute*, 2021). Una consecuencia de este desinterés ha llevado a los medios a reinventarse en el entorno digital: la prensa potencia los web-medios con su oferta multimedia y transmedia, la radio hace lo propio con los podcasts, y la televisión adapta los streamings, los lives, y los videos de corta duración en convergencia con las redes sociales. El ecosistema mediático de Colombia demarca que las plataformas digitales de medios tradicionales siguen liderando el consumo de noticias en internet (figura 1).

Las audiencias denotan que la televisión, en su sistema convencional, es el principal proveedor de noticias, mientras que la prensa está revitalizando su modelo de negocio y penetración en el mercado en el ecosistema digital. La radio con el podcast ha comenzado a reactivarse con un crecimiento del 46% en temas asociados a salud, ciencia, tecnología, vida, moda, arte, literatura, viajes, noticias políticas, hechos internacionales, asuntos sociales y deportes. Este tipo de estrategia busca llegar a una audiencia que ha colocado las pantallas de los dispositivos –smartphone, 83%; computador, 39%; tableta, 7%– en un lugar destacado de su consumo mediático. Pese a ello, el público no ha incorporado a su dieta los boletines de correo electrónico (*newsletter*), ni tampoco el modelo por suscripción. Un dato para tener en cuenta es que tan solo un 15% de colombianos manifiesta su disposición de pago para acceder a contenidos informativos (*Reuters Institute*, 2021). Quizá sea este uno de los principales factores para que la prensa, la radio y la televisión se muestren recelosas de proponer nuevos formatos adecuados al entorno digital. Ciertamente, los *mass media* tienen una carga histórica de representación en lo tradicional, pero este modelo está siendo superado por el empoderamiento de las plataformas sociales y el papel de los usuarios.

> El fenómeno tecnológico propicia el surgimiento de nuevas corrientes de productos y significados que son definidos por la industria y, posteriormente, resignificados a partir de su uso por parte del usuario-seguidor

Esta metamorfosis cultural concentra la discusión en los medios y desde allí enriquece la deliberación social que representa y visibiliza a los ciudadanos. Esta investigación se centra en la respuesta de los agentes periodísticos colombianos a la demanda de noticias durante el período 2019, 2020 y 2021, y tiene como objetivo dar respuesta a tres preguntas específicas:

PI1. ¿Cuál es el eje discursivo que capta la atención de los usuarios e impone en la agenda social un tema en particular?

PI2. ¿Cómo, emisores y receptores, gestionan la comunicación en un periodo de crisis?

PI3 ¿Qué pautas de conducta delinean la relación medio/audiencia/usuario en la socialización y construcción de la realidad?

El objetivo de este estudio es evidenciar la disrupción producida por las TIC en el modelo de negocio y las rutinas productivas en la estrategia operativa de los medios colombianos ante una coyuntura de inconformismo social que es acentuada por la pandemia. Este contexto demanda un esfuerzo y versatilidad a las empresas periodísticas para mantener la marca como referente de información y credibilidad. Desde la comprensión de la estrategia desplegada se puede contrastar la reinvención de la industria comunicativa y el comportamiento de los agentes en la construcción de la noción de realidad (**Martín-Santana** *et al.*, 2017) en el imaginario colectivo. Se parte del presupuesto que el ecosistema mediático colombiano está explorando nuevas formas de construir el relato de un contexto condicionado por la implementación de los acuerdos de paz, la crisis sanitaria y el inconformismo social llevado a la calle.

2. Metodología

La agenda informativa de los colombianos está conexa a las propuestas tradicionales –Prensa, 74,7%; Radio, 83,4%; Televisión, 91,6%– y digitales –Prensa, 52,9%; Radio, 59,6%; Televisión, 64,1%– de los medios tradicionales, flujo de contenidos que transita los dispositivos de pantalla y llegan a los usuarios a través de redes sociales, 54%; aplicaciones de mensajería instantánea, 38,5%; streaming en plataforma digital, 35,2%; web-medio o app-medio, 28,7%; *mail*, 17,8%; mensaje de texto SMS, 13,5% (*Asociación Colombiana de Investigación de Medios*, 2020a). La selección de los medios, objeto de seguimiento e investigación, se realizó tomando como base el *Estudio general de medios*, *EGM* (*Asociación Colombiana de Investigación de Medios*, 2020b) que delinea, esquematiza, el consumo informativo del colectivo social a través de los dos diarios de circulación nacional (*El tiempo* y *El espectador*), las cinco cadenas de radio generalista que cubren el país (*Caracol radio*, *W radio*, *Blu radio*, *RCN radio* y *La FM*) y los dos noticieros de los canales privados de televisión (*Noticias Caracol* y *Noticias RCN*).

La conversación social de los medios y sus usuarios se teje bajo la construcción de opinión pública, la necesidad de cambiar puntos de vista para uniformar el pensamiento colectivo frente a temáticas particulares como la implementación de los acuerdos de paz de 2019, la pandemia que condujo al confinamiento general en 2020, o el inconformismo social que se llevó a las calles en 2021. Teniendo como referencia que en el ecosistema social colombiano –51.07 millones de habitantes (*DANE*, 2021)– las redes sociales tienen una penetración del 81,3% –*YouTube*, 95,7%; *Facebook*, 93,6%; *Instagram*, 82%; *Twitter*, 59,2%, entre otras (*Hootsuite*, 2021)– este trabajo centró su atención en los perfiles sociales de los medios objeto de análisis (tabla 2) en los meses de marzo, abril y mayo en los años 2019, 2020 y 2021. El corpus de estudio está integrado por 227.922 piezas publicadas que fueron descargadas así:

1) los posts publicados en los perfiles de cada medio en *Facebook*, y las reacciones de los usuarios, fueron fotografiados diariamente en la plataforma social;

2) los mensajes de las cuentas en *Twitter* fueron obtenidos a través de la plataforma de pago *Twitonomy* que permite extraer un archivo *Excel* con la información global de la actividad diaria, los link de cada tweet y sus reacciones;

3) las imágenes de *Instagram* se extrajeron de los perfiles de cada medio con capturas de pantalla en los días de estudio;

4) los vídeos de *YouTube* de cada medio tuvieron un registro gráfico desde sus respectivos perfiles en la plataforma, con monitorización a través del programa *SocialBlade*. La muestra seleccionada, 100% de los mensajes emitidos en el periodo de estudio, permite establecer un bosquejo o tendencia de actuación, de la industria de la comunicación, frente a la producción y estrategias de acción para penetrar en el imaginario colectivo con la marca mediática como un referente de consumo.

Tabla 2. Corpus de estudio en el proceso investigativo

Red social	Prensa	Radio	Televisión
Facebook	21.106	44.705	10.759
Twitter	44.468	80.848	12.049
Instagram	2.489	4.017	1.041
YouTube	2.747	2.419	1.274

El material recolectado fue analizado inicialmente desde una metodología cuantitativa, a través de fichas de observación previamente validadas (**Wimmer**; **Dominick**, 1996; **Holsti**, 1969) con el fin de garantizar una correcta aplicación por parte de los codificadores (**Barredo-Ibáñez**, 2015) y minimizar sesgos (**Ortega**; **Galhardi**, 2013). Las tablas estaban constituidas en tres apartados: flujo de actividad –comportamiento de cada perfil, publicaciones en las plataformas sociales–, contenido –tipo de publicación en relación con la actividad que propone–, y relación medio/usuario/producto –interacción que propician los mensajes publicados–. Los datos cuantitativos aportan elementos estadísticos de las sinergias entre los *mass media* y su entorno online (**Krumsvik**; **Storsul**, 2013; **Gutiérrez** *et al.*, 2014) en los asuntos temáticos objeto de estudio: los acuerdos de paz, la crisis sanitaria y el inconformismo social. Las cifras obtenidas fueron trianguladas con los registros de la aplicación de pago *Fanpage Karma* que, desde *Meta Platforms*, arroja patrones de las cuatro redes sociales que son objeto de estudio, que permiten contrastar esos resultados con los procesados por los codificadores y garantizar que no existe una desviación superior al 3%, ello se considera clave para determinar unas rutinas de comportamiento, particulares y comunes de los *mass media.*

Las inferencias numéricas, que son de baja trascendencia para el estudio que aquí se describe, no solo sirven para dar referencia a algunos datos métricos, sino que son pertinentes para el estudio cualitativo posterior aplicado a la narración, composición y tratamiento digital de los mensajes (**Mayoral**; **Edo**, 2014). La fase metodológica cualitativa de este proceso investigativo provee datos descriptivos del fenómeno en un ambiente natural (**Taylor** *et al.*, 2015), análisis de los mensajes permitió recabar datos para cruzar variables (tabla 3) sobre las cuales categorizar el comportamiento de cada medio y sus seguidores. Contraste de los niveles de significación que permitirán intervenciones posteriores con algún experimento o tratamiento artificial.

Tabla 3. Categorías de análisis

Agente	Variable	Descriptor	Criterio de análisis
Emisor	Contenido comunicativo	Comportamiento del perfil social, tipos de contenidos digitales propuestos por los medios, narración y actividad que se usa para la construcción de agenda.	Adaptación de los modelos comunicativos al ecosistema digital (**Pérez-Escoda**; **Pedrero-Esteban**, 2021). Influencia social de los medios en el dietario informativo de los ciudadanos (**Casero-Ripollés**; **García-Gordillo**, 2020).
Emisor/ Audiencia/ Usuario	Conexión medio/ usuario	Táctica comunicativa de los agentes mediáticos, en el ecosistema digital, que propicia acciones de respuesta, reconocimiento e interacción por parte de los usuarios.	La audiencia, el consumo de medios, y su participación en los contenidos (**Peña-Fernández** *et al.*, 2019). Táctica comunicativa de los medios (**Martí** *et al.*, 2019).
Emisor/ Audiencia/ Usuario	Fundamento discursivo	Composición del mensaje (etiquetas, preguntas, hipervínculos, infografías, fotografías, videos, fragmentos sonoros, reacciones emocionales, memes, réplica, compartir), convergencia de elementos que se denotan en los contenidos del medio y las respuestas de los usuarios en los escenarios sociales.	Los medios en la formación de opinión pública (**Terán-Villegas**; **Aguilar-Castro**, 2018). Información tergiversada o sensacionalista que es difundida bajo la apariencia de noticia (**Farkas**; **Schou**, 2019).
Audiencia-usuario	Eslabones de la construcción de realidad	Hilo temático, tratamiento del recurso informativo que se brinda a los acontecimientos de la agenda social.	Nuevo panorama periodístico (**Salaverría** *et al.*, 2019). Secuencias de acción productiva (**Scolari**; **Establés**, 2020).

Las rutinas productivas de los medios permiten denotar la adaptación al cambio de la industria mediática y su presencia continua en el ecosistema comunicativo, el acto investigativo caracteriza como un todo el fenómeno (**Tsujimoto** *et al.*, 2018) a partir de las acciones emanadas en el texto –escrito y visual– observado (**Bonilla**; **Rodríguez**, 2005). El análisis cualitativo del contenido (**Urchaga**, 2009) inició su ruta exploratoria desde los elementos cuantitativos y el cruce de categorías de análisis (tabla 3) que evidencia la gestión y el comportamiento del agente emisor (**Bernal**, 2010). La analogía de la semiótica textual, sonora y visual del mensaje exalta certezas, interpretaciones y deducciones (**Salazar**; **Sepúlveda**, 2011) mientras que la triangulación de información da respuesta a los interrogantes con los que partió la investigación.

3. Resultados y análisis

La exposición de los hallazgos estará organizada por industria –escrita, sonora, audiovisual– y no por marca empresarial, pues el análisis pretende establecer el comportamiento del ecosistema mediático en general y su incidencia en la construcción de realidad en el imaginario colectivo (**Hameleers**; **Van-der-Meer**, 2019). El recorrido que se propone en la exposición de los hallazgos concentra su atención primero en la relación social del emisor y sus receptores, para segundo adentrarse en los detalles de la agenda temática y, finalmente, interpretar la presencia de los medios de comunicación en cada escenario social.

Tabla 4. Comunidades de los medios en las plataformas sociales

	2019	2020	Crecimiento 2019-2020	2021	Crecimiento 2020-2021
Facebook					
Audiovisual	9.248.662	8.704.782	**-6,24%**	11.110.604	**21,7%**
Sonora	5.033.230	5.978.235	**15,8%**	6.391.930	**6,5%**
Escrita	7.179.090	9.984.426	**28,1%**	10.262.904	**2,7%**
Twitter					
Audiovisual	6.697.078	16.577.734	**59,6%**	7.076.372	**-134,2%**
Sonora	14.256.330	15.728.985	**9,4%**	16.588.375	**5,2%**
Escrita	11.322.514	12.240.808	**7,5%**	13.011.724	**5,9%**
Instagram					
Audiovisual	3.160.158	3.496.486	**9,6%**	5.419.692	**35,5%**
Sonora	981.500	2.279.145	**56,9%**	2.895.975	**21,3%**
Escrita	1.708.052	2.917.820	**41,4%**	3.848.532	**24,2%**
YouTube					
Audiovisual	3.821.482	3.400.666	**-12.3%**	11.316.666	**70,0%**
Sonora	317.730	663.535	**52,1%**	814.435	**18,5%**
Escrita	393.162	988.334	**60,2%**	1.641.334	**39,8%**

Datos a 31 de mayo de 2021. Estas cifras consolidan datos de: escrita (2 periódicos), sonora (5 emisoras), audiovisual (2 canales).

3.1. Interacción medio/audiencia/usuario

Los medios convencionales, en el ámbito de las redes sociales, reportan un importante número de seguidores (tabla 4), pero no necesariamente en consonancia con su actividad diaria del entorno online. Sin embargo y con independencia de la red, tanto las publicaciones de los emisores como los comentarios de los usuarios presentan similares tendencias que conducen a un análisis general sin particularidades específicas en función de uno u otro medio.

La conexión de la empresa periodística con los usuarios denota índices de crecimiento importantes en el periodo 2019-2020, fenómeno de cercanía que está asociado con la pandemia SARS-CoV-2 y las ansias informativas en la población, pero decae de manera importante en el ciclo 2020-2021, especialmente en *Twitter*. Esta situación contrasta con el esfuerzo que el gobierno colombiano, al igual que otros (**Pulido-Polo** *et al.*, 2021), hizo para convertir esta red en un canal informativo de la pandemia. En el ecosistema digital, la marca de la empresa periodística sigue siendo un referente de información importante. Sin embargo, en el análisis cualitativo de los mensajes se percibe una apatía o distanciamiento que se hace evidente con el inconformismo social trasladado a las calles y el cubrimiento mediático alineado con el estamento democrático, distante del sentir ciudadano (figura 2). La relación medio/audiencia/usuario, en el ámbito convencional y digital, está permeada por un desplome continuo de la imagen y credibilidad de los medios de comunicación masiva en los últimos tres años (tabla 5).

La industria mediática busca posicionar la marca periodística y expandir una propuesta comunicativa, dándole valor añadido a las redes sociales (**Gutiérrez** *et al.*, 2014). Sin embargo, para los seguidores, estos espacios se convierten en una tribuna de desahogo y polarización para hablar de lo cotidiano. Así, el entorno digital devela que el esfuerzo productivo de la empresa mediática arroja unos rangos de rendimiento por el compromiso de los usuarios, grado de rentabilidad, positivo o negativo, que tiene una publicación frente a la cantidad de acciones -me gusta, favorito, RT, compartir, comentarios- que logra por parte del receptor en los perfiles sociales objeto de estudio en esta investigación (tabla 6) (**Barrios-Rubio**; **Gutiérrez-García**, 2016).

Tabla 5. Imagen y credibilidad de los medios de masas

Medición	Favorable	Desfavorable
diciembre 2019	44%	51%
agosto 2020	43%	46%
enero 2021	41%	54%
Junio 2021	32%	62%

Fuente: *Datexco*, 2021

Tabla 6. Porcentaje de compromiso de los usuarios con los perfiles de los medios

	2019	2020	2021
Facebook			
Audiovisual	0,95%	2,72%	0,76%
Sonora	3,66%	3,94%	4,66%
Escrita	3,14%	3,19%	3,99%
Twitter			
Audiovisual	0,06%	0,16%	0,02%
Sonora	0,15%	0,22%	0,17%
Escrita	0,17%	0,25%	0,45%
Instagram			
Audiovisual	1,40%	1,33%	1,11%
Sonora	0,75%	0,73%	1,33%
Escrita	2,80%	4,93%	8,67%
YouTube			
Audiovisual	21,83%	6,94%	1,87%
Sonora	1,66%	6,58%	3,60%
Escrita	18,14%	9,71%	4,83%

Datos a 31 de mayo de 2021. Estas cifras consolidan datos de: escrita (2 periódicos), sonora (5 emisoras), audiovisual (2 canales).

Figura 2. Divergencias de los usuarios con los medios y sus agentes (*Twitter*)

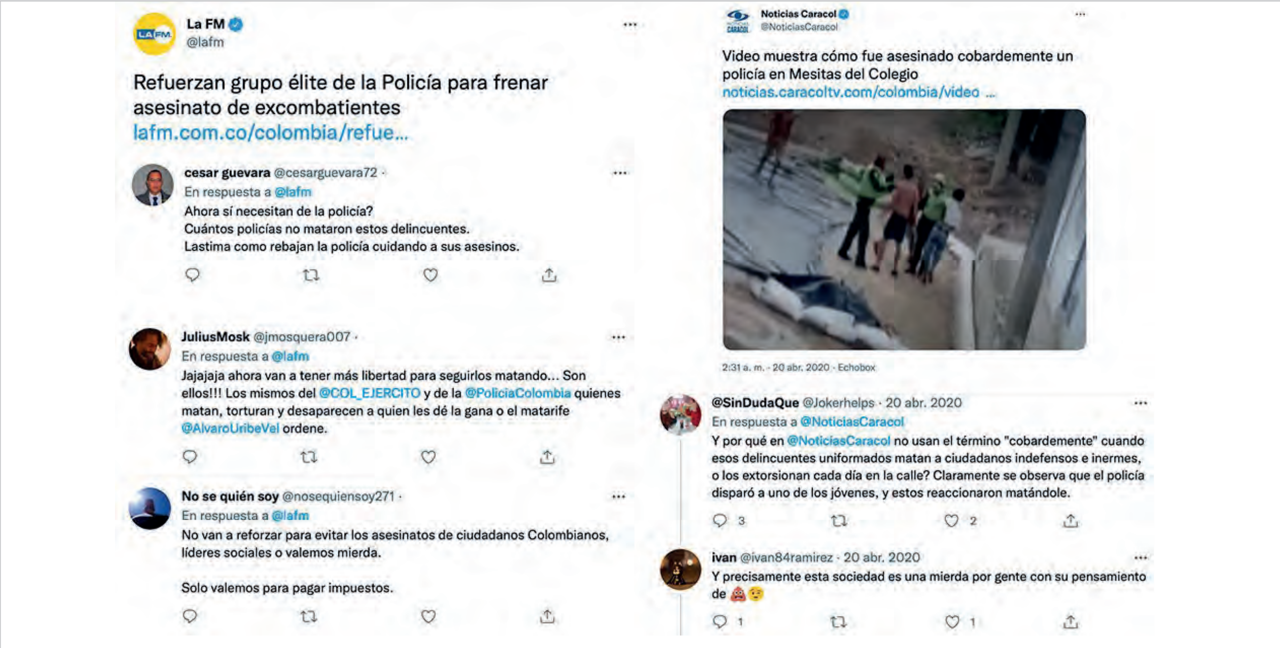

Figura 3. Descontextualización de la noticia en las reacciones de los usuarios (*Twitter*)

A lo largo del período analizado y en términos generales, se observa cómo el porcentaje de compromiso de los usuarios se incrementa, en especial en los perfiles de prensa en *Instagram* que pasaron del 2,80% (2019) al 8,67% (2021). En el polo opuesto, se encuentra *YouTube* con unos niveles de compromiso que tienden a disminuir independientemente del tipo de medio. Sin duda, estos datos son merecedores de un estudio concreto que indague en las razones de los usuarios en este tipo de comportamientos.

Desde la perspectiva del análisis cualitativo, la muestra permite afirmar que las reacciones de los usuarios en los perfiles de los medios refuerzan las creencias propias y animan a la polarización generando cámaras de eco, *echo chambers* –ideas o creencias que son amplificados por la transmisión y repetición del mensaje– (**Baumann** *et al.*, 2020) que dejan poco lugar al debate (figura 3). Pese a ello, la construcción de la opinión pública en el entorno digital (**Chadwick**, 2017) cambia de temas con velocidad vertiginosa, partiendo de las publicaciones de los medios e incorporando datos de los seguidores que no han sido confirmados. Una circunstancia que genera un flujo de reacciones que acaba produciendo un mayor desinterés y pérdida de credibilidad entre los ciudadanos.

El ecosistema informativo en las plataformas sociales deja entrever un flujo de *fake news* que de manera veloz se propaga por los clics que reciben las reacciones a los titulares y bocadillos informativos que escasamente se leen en su totalidad dada la "sobreabundancia" de noticias en la red. El análisis muestra que el seguimiento del perfil de un medio y la interacción con sus publicaciones no implica estar de acuerdo con la línea editorial, es decir, no necesariamente un seguidor es un fan y un compartir significa una aprobación.

3.2. Dietario informativo en la relación medio/audiencia/usuario

Ante las necesidades informativas de los ciudadanos, los medios reformularon el modo de emitir sus mensajes, además de explorar narrativas, formatos, lenguajes e historias que unificaron el tratamiento temático de los hechos en las redes sociales con una significativa tendencia a priorizar el vídeo. El uso y apropiación de las plataformas digitales, por parte de la industria mediática, buscaba estimular el consumo 360º, hoja de ruta noticiosa que, bajo una conducción sencilla y dialogada, acorde a las circunstancias de los hechos, transitaba por los acontecimientos diarios (tabla 7). De acuerdo con los datos, el volumen de información en el ecosistema digital de la industria mediática evidencia un catálogo de oferta consolidado que normaliza un nuevo prototipo mediático basado en la conectividad, la ubicuidad, la atemporalidad y la interactividad.

Tabla 7. Decálogo de temas que se destacaron en el periodo de estudio

2019	2020	2021
Afinidad ideológica de grupos armados y sociales en protestas al sur de Colombia. Objeciones a la *JEP* y proceso de paz firmado en La Habana. Corrupción. Disputas políticas entre el gobierno y la oposición.	Confinamiento. Gestión gubernamental ante la crisis económica y social. Hambre, solidaridad, mezquindad política, reinvención del aparato productivo, y retorno a la cotidianidad.	Inconformismo social llevado a la calle. Fanatismo caudillista. Vandalismo en la protesta ciudadana. Polarización política.

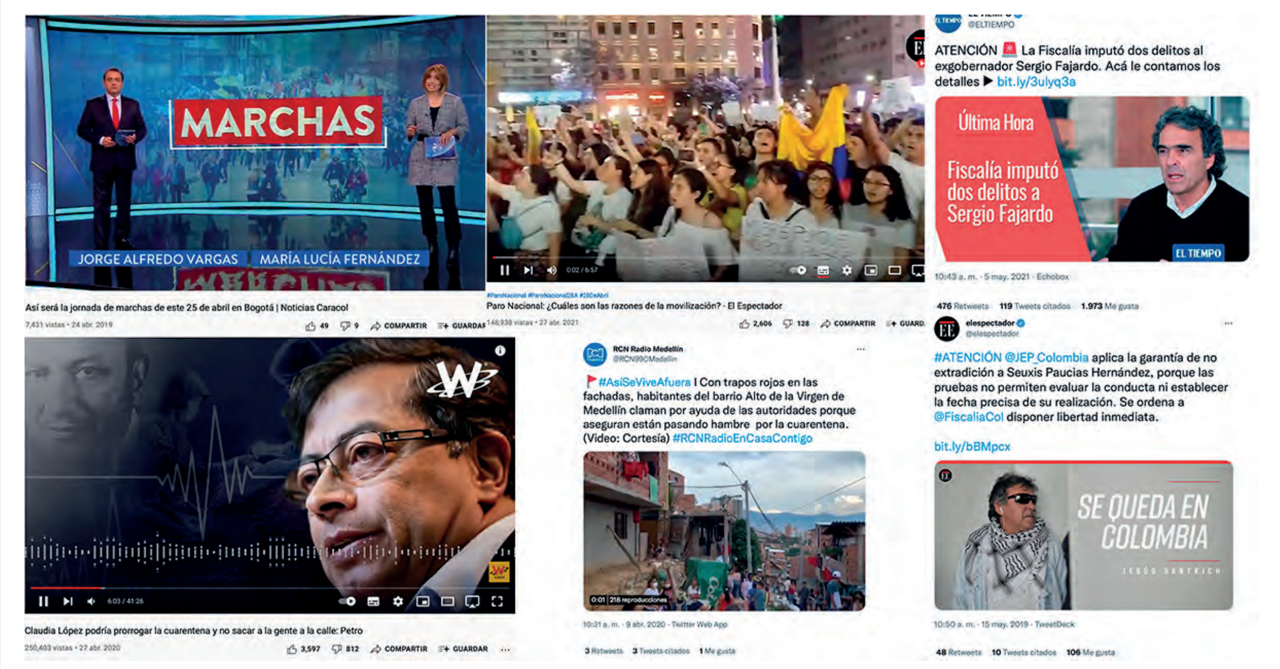

Figura 4. Agenda discursiva de los medios (varias fuentes)

La labor periodística se basó, en el periodo de estudio, en noticias, frases destacadas de entrevistas, posiciones de líderes de opinión, tendencias marcadas por las redes sociales, hechos internacionales y opinión profesional de los comunicadores (**Barrios-Rubio**; **Pedrero-Esteban**, 2021). El análisis cualitativo pone de manifiesto que el derrotero informativo (figura 4) iguala el alcance potencial de las apuestas de ocio y entretenimiento de las plataformas sociales. La táctica operativa de la empresa periodística está encaminada a posicionar la marca del medio en el imaginario colectivo. La cadena de mensajes que circulan a lo largo del día estructura una arquitectura de relación con el público, marketing social y empresarial, y de comunicación externa ajustada a las políticas institucionales del ideario de la empresa periodística. Desde las correspondientes aplicaciones se fusionan procesos, adoptándose rutinas productivas e innovando el modelo de negocio para generar lealtad de los usuarios sin importar el escenario de aproximación al contenido.

La agenda temática de las redes sociales se correlaciona con la del offline y no impone por sí sola la construcción del imaginario en la opinión pública. Esta conversación digital en las plataformas de comunicación requiere del eco que le brindan el medio escrito, sonoro y audiovisual. La convergencia de eventos ciudadanos en Colombia, acaecidos en los últimos tres años –2019, implementación de los acuerdos de paz; 2020, confinamiento ciudadano por la pandemia SARS-CoV-2; 2021 inconformismo poblacional que lleva el paro nacional a las calles– (figuras 4 y 5) ha forzado a

Figura 5. Devenir temático en las redes sociales (*Twitter*)

un cambio en el paradigma desde el que mientras los medios tradicionales siguen siendo el lugar del debate nacional, las redes se constituyen en foco de expansión y contextualización del derrotero conversacional de las personas. Así, las agendas de medios, de los líderes políticos y autoridades nacionales o locales reciben la presión de las reacciones de los seguidores ante los acontecimientos (figuras 4 y 5).

> Los medios de comunicación tradicionales siguen siendo un referente informativo y de consumo en el ecosistema digital

Los medios responden en su estrategia operativa a un consumo digital móvil, fragmentado y multisoporte –diversos canales de emisión y recepción– que es consecuente con unos usuarios en un escenario de tránsito social y proactivo en el que se involucran narrativas transmediáticas que propician la producción de nuevos contenidos. La huella digital de los medios y sus usuarios pone de manifiesto la circulación de cualquier contenido, en cualquier lugar, en cualquier momento, y en cualquier dispositivo, característica que tiene sus particularidades de lenguaje para captar la atención de los públicos en cada uno de los escenarios que fueron objeto de estudio. Los medios concentran esfuerzos no solo en contar historias sino en poner en contexto las noticias, sus significados e implicaciones para la población (figura 6). El material de estudio permite afirmar que el qué de la noticia ya no es lo que importa, lo relevante es el cómo y el por qué. La figura 6 muestra cómo los participantes en las marchas ciudadanas se expresan, en algunos casos, tapándose la cara para elevar sus peticiones, al tiempo que intimidan a aquellos que no la siguen. La industria mediática genera una hoja de ruta que se conforma de acuerdo con la aceptación que brinda la audiencia al producto que se ofrece en el medio convencional y las alternativas digitales.

Desde la tecnología se moldea la cultura en que se vive, ya que el mensaje más que un contenido específico es la significación, el reconocimiento y la puesta en común de un mundo que debe ser repensado, como un perfecto ejemplo de la ecología de los medios (**Scolari**; **Rapa**, 2020). Indudablemente, la relación de las personas y las tecnologías mediáticas que usan influye en lo que se piensa y el cómo se comportan. Además, la triangulación medio/audiencia/usuario en el ecosistema digital posiciona en el imaginario colectivo las agendas de discusión de los medios, fragmentado aún más la realidad (**Maniou** *et al.*, 2020) y revitalizando su proceso de mediación (**Romero-Rodríguez** *et al.*, 2016).

3.3. Los medios y el para qué estar en los escenarios sociales digitales

Con relación a *Facebook*, la lectura de los datos permite reconocer tres grandes ámbitos que nutren la actuación de la industria mediática en escenario: 1) la ampliación de competencias narrativas de cada una de las marcas periodísticas; 2) la inclusión de nuevas rutinas productivas y 3) la creación de perfiles informativos especializados que denotan hibridación de competencias comunicativas (figura 7). Está claro que el consumo audiovisual acapara importantes minutos del tiempo en redes sociales, fundamentalmente a través del smartphone. La base de la comunicación en *Facebook* permite identificar contenidos presentados de diversas maneras, redundancia constante en las franjas del día y la noche, propiciando una interacción continuada en el tiempo. Los métodos de conexión ininterrumpida bajo la necesidad de una búsqueda de información de interés es una táctica operativa que se fundamenta en la identidad, la conversación, el compartir, la relación y la reputación.

Figura 6. Conexión medios/usuarios en la construcción de la realidad (*Caracol* y *Facebook*)

Figura 7. Apuesta multimedia de los medios en *Facebook*

El microblog *Twitter* ejerce, para los medios colombianos, como epicentro de la generación de opinión marcando la agenda informativa del día con los "hashtags" que se imponen desde las mesas de la radio en la mañana. Esta estrategia permite a la industria mediática, además de estar presente, monitorear de qué hablan las personas. El límite de palabras para contar un mensaje obliga a los medios a presentar un contenido contundente con frases bien construidas acompañadas de un adjetivo y una imagen que llamen a la acción. En el universo de mensajes analizados, se encontraron un sinnúmero de publicaciones de los medios y de los usuarios, que más que opiniones o recontextualización de los mensajes, confunden convirtiéndose en la base de rumores y posibles *fake news*.

Por su parte, *Instagram* es una red todavía en crecimiento que es utilizada para conectar con las capas más jóvenes de la población y con contenidos distribuidos de manera regular y sistemática para no perderse entre el incesante volumen de las fotografías de los usuarios. La industria periodística colombiana pone a circular publicaciones, mezcla de imágenes y videos, que configuran una realidad que resignifica los acontecimientos en el imaginario con un grado de irrelevancia, desinformación, propaganda y engaño impuestos por grupos de interés ajenos a los medios.

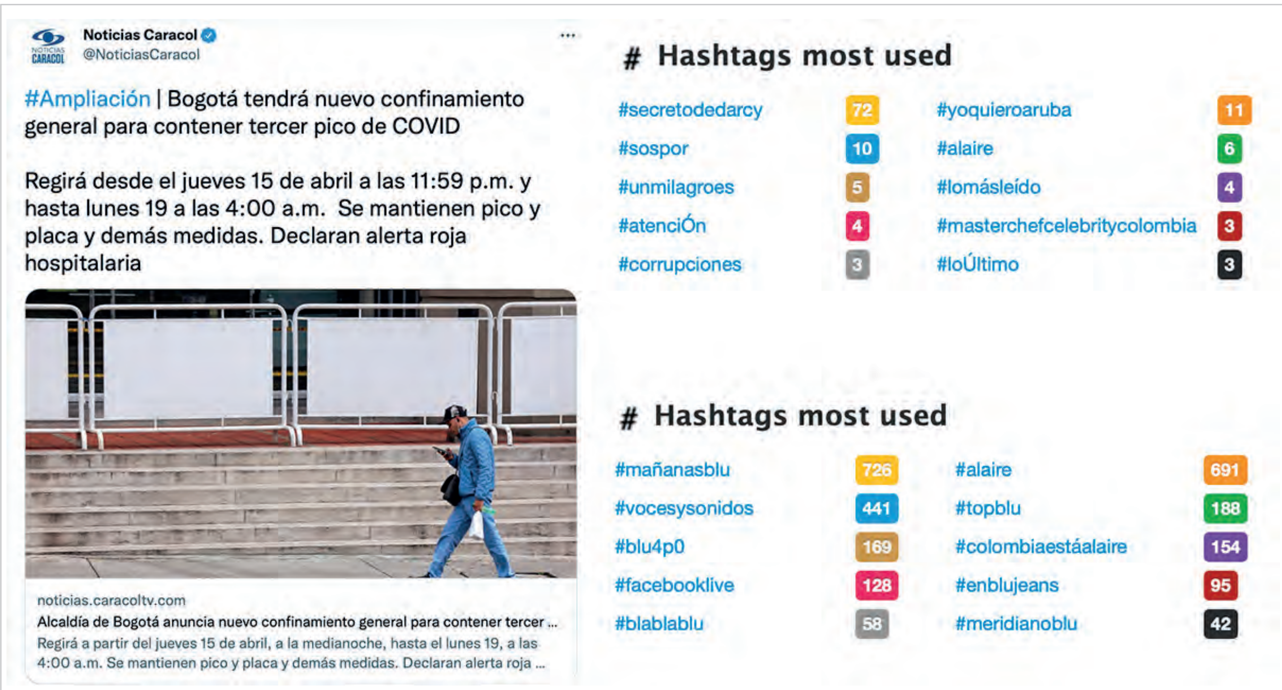

Figura 8. Tendencias de los medios en *Twitter*

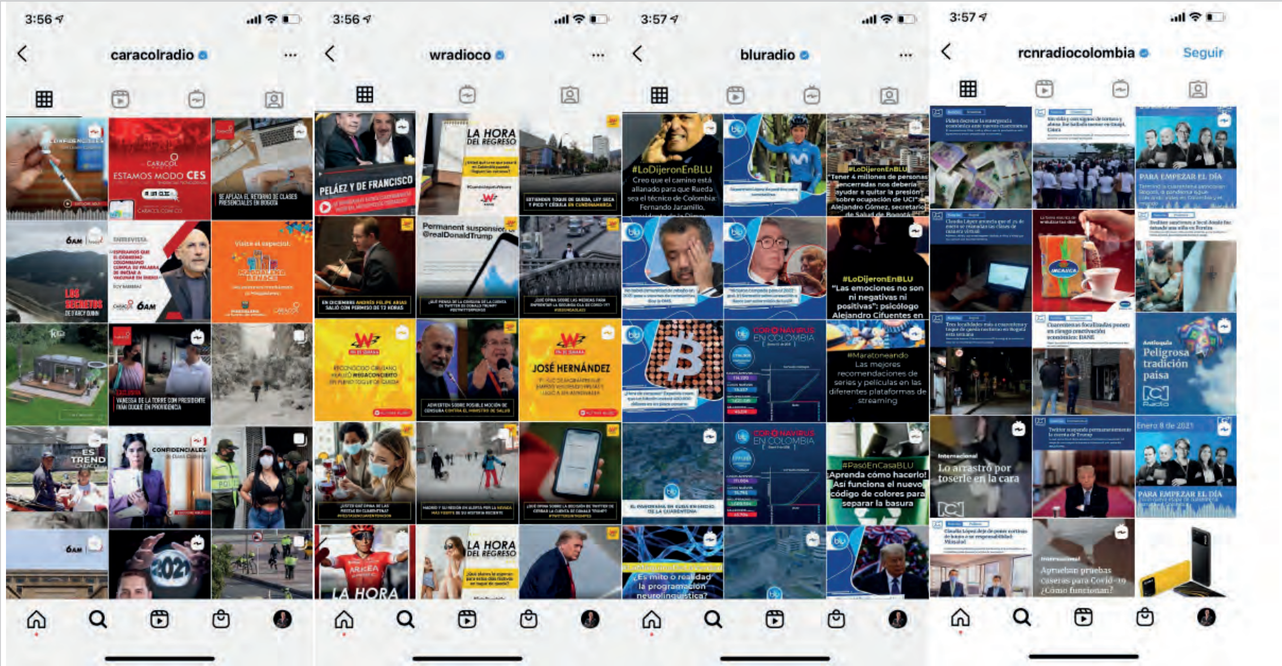

Figura 9. La realidad a través de la imagen. Fuente: varias emisoras de radio.

YouTube, si bien es un escenario en el que el nivel de compromiso de los usuarios ha bajado significativamente durante el periodo analizado, es una plataforma de relevancia en la producción de contenidos por parte de los *mass media.* Consolidación de una cultura visual a través del smartphone (**Barrios-Rubio**; **Pedrero-Esteban**, 2021) incentiva una táctica operativa de los medios que se concentra en la producción de un vídeo acompañado de un titular y un campo de texto sintético. Para la industria mediática es importante estar en *YouTube*, dar información que no es relevante en texto, pero sí en vídeo; esta plataforma denota una estrategia operativa que atribuye al usuario el control del consumo y desdibuja la apuesta de acceso lineal al contenido como es tradicional para la radio y la televisión.

La opción de consumo audiovisual que generan los medios, sin importar su especificidad operativa, se fundamenta en un contenido accesible en cualquier lugar y momento sin importar el dispositivo de pantalla con el que se cuenta. La propuesta comunicativa indica una redefinición de la industria mediática que está distante de la confianza y credibilidad del público. En la construcción de la opinión pública en la red, la industria apuesta porque los hechos primero se vean, luego se escuchen y más tarde se lean. Este tipo de producto comunicativo de la industria mediática en la red cumple con 4 funciones:

1) producción e interpretación de sentido, materialización de la realidad en el contexto social desde sus antecedentes, causas y consecuencias;

2) articulación de los procesos, cadena de hechos que marcan la globalidad de los acontecimientos, producción y reconocimiento del diario vivir;

3) atención de las problemáticas y demandas específicas en las dimensiones de la comunicación masiva, personal masiva y de organizaciones o grupos; y

4) diseño de productos de comunicación pertinentes a las problemáticas y demandas de los destinatarios, relevancia de los contextos que marcan la realidad de los usuarios.

3.4. Noción de realidad en el discurso de los seguidores/usuarios

Las interacciones de los seguidores/usuarios están fundadas en las emociones que se mueven a través de las *fake news*, la infoxicación y el odio que agita a los colectivos sociales contra la institucionalidad y los medios de comunicación que a cada instante se muestran lejanos de las realidades de las ciudadanías. Las redes sociales se usan como espacio público unidireccional en el que se comparten mensajes, se informa, pero no se construyen relaciones entre los sujetos más allá de la polarización que radicaliza los extremos políticos de la nación (figura 10). Esta concepción estratégica y creativa propone un falso diálogo con los seguidores ya que es prácticamente testimonial la interacción con los emisores, pese a perseguir dar una apariencia de unidad funcional. Lo tecnológico y lo social convergen en un espacio de micropolítica doméstica de tensiones y disputas entre los grupos poblacionales.

> Las audiencias, sin importar su rango generacional, encuentran en el smartphone un instrumento donde se concentran los ojos de los usuarios para ver e interpretar el mundo

Figura 10. Polarización ciudadana en las redes sociales

La red se constituye en escenario en el que se puede realizar la recolección de instantes de la realidad nacional, construcción de lo público desde la que se hace parte de la conversación y se fija la opinión pública. Es una noción de la realidad sustentada desde una burbuja en la que se entremezclan y comparten creencias y valores de personas, altamente ideologizadas que creen en lo que está próximo a su líder predilecto sin importar cuál sea la verdad ni el discurso social de los medios (figura 10), fomentándose así la polarización social.

Los mensajes de la empresa periodística generan un tipo de emoción que lleva al seguidor/usuario a interactuar (agrado o desagrado) y compartir el producto comunicativo (tabla 8). El análisis cualitativo del corpus de estudio, después de revisar las cifras de los insumos cuantitativos, demarca una clara afinidad de los ciudadanos con la prensa que mantiene

Tabla 8. Interacción del seguidor/usuario con el mensaje mediático

Facebook						
	Mensajes	**Total reacciones**	**% comentarios**	**% compartidos**	**% me gusta, encanta o divierte**	**% me enoja, entristece, asombra**
Escrita	21.106	31.186.531	24,3%	21,7%	46,5%	7,5%
Sonora	44.705	20.991.525	12,0%	23,9%	52,6%	11,5%
Audiovisual	10.759	12.680.598	7,9%	19,1%	58,6%	14,4%
Twitter						
	Mensajes	**Total reacciones**	**% comentarios**		**% me gusta**	**% RT**
Escrita	44.468	3.139.738	41,7%		33,8%	24,5%
Sonora	80.848	2.454.090	37,9%		33,9%	28,2%
Audiovisual	12.049	988.506	38,5%		38,1%	23,4%
Instagram						
	Mensajes	**Total reacciones**	**% comentarios**		**% me gusta**	**% compartidos**
Escrita	2.489	16.028.242	3,0%		79,7%	17,3%
Sonora	4.017	1.921.805	9,5%		82,9%	7,6%
Audiovisual	1.041	4.404.928	3,2%		88,4%	8,4%
YouTube						
	Vídeos	**Total visualizaciones**	**Total reacciones**	**% comentarios**	**% me gusta**	**% no me gusta**
Escrita	2.747	153.378	793.286	22,0%	69,7%	8,3%
Sonora	2.419	127.795	265.475	23,3%	68,0%	8,7%
Audiovisual	1.274	330.832	1.188.086	17,1%	76,9%	6,0%

Estas cifras consolidan datos de 2019, 2020 y 2021 de: escrita (2 periódicos), sonora (5 emisoras), y audiovisual (2 canales).

Figura 11. Voz de los usuarios en el escenario social

un crecimiento constante y revitaliza su valor frente al público como fuente de información en el escenario digital (tabla 8). Ello contrasta con una industria radiofónica que todavía no tiene una clara estrategia de sinergias entre el online y el offline, lo que influye negativamente en su narrativa. En el caso de los perfiles televisivos, se observa un divorcio entre el medio y sus usuarios, ya que la visualización en pantalla del clima de tensión en las calles contrasta con el discurso de carácter conservador que naturalmente respalda la institucionalidad del estado. En este punto, debe aclararse que mayoritariamente el tipo de respuesta del seguidor/usuario muestra agrado o desagrado y deseo de compartir la publicación.

La pandemia del SARS-CoV-2 y el estallido de inconformismo social, para el caso colombiano, han acentuado la crisis de reputación del periodismo ante la penetración exponencial de las redes sociales a través de las cuales el ciudadano resignifica los acontecimientos como se aprecia en la figura 11. Se observa como realidad y ficción se mezclan facilitando la desinformación y las *fake news* que se difunden incontrolablemente (**Masip** *et al.*, 2020). En la era digital, todos son partícipes en las noticias de última hora, incluso antes de que sean noticias. Los ciudadanos están a la caza de ideas e informaciones que alimenten esos deseos de conocer más del otro. La investigación pone de manifiesto cómo desde las redes sociales se transforman las percepciones que se tiene del mundo y de la realidad del entorno cercano (figura 11) (**Karyotakis** *et al.*, 2019).

Los hashtags se han convertido en la vía para llevar a los ciudadanos temas, contenidos y posicionamiento de personajes de la vida nacional. Este modo de ver, oír y entender el mundo se ha incorporado a la dieta mediática siendo una de sus consecuencias la búsqueda de confirmación ideológica, en la línea de la *echo chamber* . En todo caso, se generan dos discursos diferentes (**Gutiérrez** *et al.*, 2014) en el que los medios informativos parecen estar más interesados en la circulación de sus publicaciones y el espectáculo que se genera en sus perfiles, que en contrarrestar los bulos entre sus propios usuarios. Así, independientemente del tipo de contenido consumido, las plataformas sociales para la industria son una estrategia para atraer a una audiencia cautiva (**Morimoto**, 2020; **Plasek**; **Temesi**, 2019) que, en buena parte, alimentará a su vez el entorno offline.

4. Conclusiones

El flujo informativo en momentos de crisis resulta complejo porque impone ritmos y esquemas de creación y distribución muy distantes de los tradicionales modelos de actuación de los medios que, por otra parte, no los exime de cuidar el valor intrínseco y consustancial a todo editor: objetividad, independencia y claridad (*Reuters Institute*, 2019). Aunque los medios tradicionales se mantienen como espacio para el análisis, ha ganado peso la participación de las comunidades en las distintas plataformas, en las que se genera un flujo acorde a los rasgos generacionales e ideológicos del público de cada red o escenario cuya relevancia supera ya a la del paradigma comunicativo clásico. El cambio de arquetipo convierte en imperativa la apuesta por nuevos contenidos (temáticas amplias y géneros variados), públicos (mayor segmentación, otros

Aunque los medios tradicionales se mantienen como espacio para el análisis, ha ganado peso la participación de las comunidades en las distintas plataformas, en las que se genera un flujo acorde a los rasgos generacionales e ideológicos del público

targets y nichos), tratamientos (renovados formatos y lenguajes), canales de distribución (aplicaciones, redes sociales, asistentes de voz, *wearables*…) y sistemas de financiación y monetización (suscripción, *crowdfunding*…) (**Suing** *et al.*, 2018).

> La innovación tecnológica ha impuesto nuevas formas de consumo cuyas lógicas no se corresponden ya con el sistema tradicional de producción, distribución y consumo de la información; la normalización de la conectividad, la ubicuidad, la atemporalidad y la interactividad constituyen valores hoy inherentes a los contenidos difundidos

El heterogéneo entorno, en el que convergen los sistemas tradicionales y digitales, marca el fundamento discursivo para captar la atención de los usuarios e imponer en la agenda social un tema en particular, esquema de actuación que responde al fenómeno de mediamorfosis (**Aguaded**; **Romero-Rodríguez**, 2015) que, si bien es global, tiene sus particularidades en el ecosistema comunicativo colombiano en la construcción de opinión pública (**Chadwick**, 2017). En los casos analizados, se observa la constitución de una bioesfera de relación entre los *mass media* y sus usuarios, un proceso de mediación (**Romero-Rodríguez** *et al.*, 2016) fuertemente impactado por las redes sociales y afectado por la ausencia de una lectura crítica de la realidad por parte del público. Esta circunstancia abre campo a la proliferación de un sinnúmero de mensajes que se instauran en el imaginario sin cumplir con los estándares de responsabilidad social, comportamiento ético y ajustarse a una escala de valores.

La gestión de la comunicación en un periodo de crisis, por parte de emisores y receptores, denota una oferta de contenidos a la carta de la industria mediática en convergencia con la construcción discursiva colectiva de los ciudadanos que luchan por hacerse oír mientras dicen defender los valores democráticos para encontrar soluciones que dibujen salidas al inconformismo social. Esta gama de propuestas comunicativas mediáticas está en conexidad con la ecología de los medios, *media evolution* (**Scolari**; **Rapa**, 2020) que, por una parte, llama a propiciar un acceso inmediato, fácil y directo al contenido, desde cualquier dispositivo, pero, que, por otra, se desdibuja en la multiplicación de odio y frustración. Estas últimas alimentadas por ideas populistas y progresistas contemporáneas de los usuarios (**Da-Empoli**, 2019). En el ecosistema comunicativo de los colombianos se percibe la construcción de agendas periodísticas marcadas por nuevas formas de presentar los contenidos, entramado comunicativo que exige un esfuerzo cognitivo por parte del público para interpretar el material que circula en pantalla. El uso y apropiación de las redes sociales por parte de los ciudadanos desdibuja el consenso que debería existir sobre la importancia y rigurosidad frente a los temas noticiosos. Así, en el ecosistema digital, la industria promueve la circulación de contenidos que, en paralelo, acaban por fragmentar la opinión pública (**Maniou** *et al.*, 2020) dando relevancia a contenidos falsos que no son detectados oportunamente (**Meel**; **Vishwakarma**, 2020).

Progresivamente mediado por el *Smartphone*, el *streaming* y la interacción en entornos virtuales de socialización se ha producido un cambio en los patrones de consumo mediático. Quizás la consecuencia más evidente es que la prensa, la radio y la televisión han dejado de ser la principal fuente de actualidad perdiendo su rol de formadores de opinión pública (**Casero-Ripollés**; **García-Gordillo**, 2020). La implementación de los acuerdos de paz, la crisis sanitaria y el inconformismo social llevado a la calle, para el caso colombiano, han acentuado la crisis de la industria ante la penetración exponencial de las redes sociales, un escenario en el que los ciudadanos son caja de resonancia de la desinformación y las *fake news* difundidas incontrolablemente (**Masip** *et al*., 2020). Las pautas de conducta que delinean la relación medio/audiencia/usuario en la socialización y construcción de la realidad está impactada por los compromisos políticos, económicos y sociales que permean a los colectivos ciudadanos en los escenarios sociales y la labor de las figuras del periodismo en los medios. La militancia ideológica de los agentes de la comunicación ha generado una pérdida de credibilidad y eficacia en la persuasión de las audiencias (**Morimoto**, 2020; **Plasek**; **Temesi**, 2019). En este proceso, la empresa periodística comienza a perder trascendencia como voz de decisión en la construcción de realidad (**Martín-Santana** *et al.*, 2017).

Los medios deben definir un modelo que permita garantizar el reconocimiento y fiabilidad de la información (**Newman**; **Fletcher**, 2017). El modelo tradicional de la industria mediática ya no funciona, la transformación y disrupción que propicia el ecosistema digital es muy rápida bajo la óptica de unos actores que participan, auditan y cuestionan a la marca periodística. La emisión y circulación de los mensajes sociales da relevancia a múltiples aspectos del proceso comunicativo (**Berduygina** *et al.*, 2019), manifestaciones y acciones colectivas (**Karyotakis** *et al.*, 2019) materializadas en la publicación de fotos, videos, audios y textos, de primera mano, genera nuevas narrativas del evento noticioso. Los perfiles sociales, objeto de estudio en esta investigación, demarcan en su contenido una mezcla del trabajo profesional del medio en convergencia con el arte digital de ironía y caricatura de los usuarios (**Baym**; **Jones**, 2012; **Kooijman**, 2008; **Becker**, 2018) y en ocasiones se difunde intencionalmente para engañar a los seguidores (**Laser** *et al.*, 2018; **Mavridis**, 2018). El entorno acá expuesto exalta la necesidad de analizar y profundizar, en próximos estudios, en las dinámicas de los efectos del consumo de información en las redes sociales.

> El uso y apropiación de las redes sociales por parte de los ciudadanos desdibuja el consenso que debería existir sobre la importancia y rigurosidad frente a los temas noticiosos

5. Nota

1. Los estratos socioeconómicos están asociados al nivel de ingresos y la capacidad adquisitiva de los ciudadanos, en el territorio colombiano son seis. NSE 1 significa Bajo-bajo, NSE 2 Bajo, NSE 3 Medio-bajo, NSE 4 Medio, NSE 5 Medio-alto y NSE 6 Alto.

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Legal and criminal prosecution of disinformation in Spain in the context of the European Union

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Abstract

Disinformation poses a very important and growing risk to our society, either alone or in association with other hybrid threats, which is being addressed at both the international and European Union (EU) as well as national level. Within the EU, a multidisciplinary and cooperative approach has been advocated between all the actors involved, in contrast to the strong regulatory perspective traditionally adopted in the history of European integration within the EU framework. For this reason, together with the inherent limitations imposed by the nature of the right to freedom of expression and information on any possible administrative censorship or criminal punishment, Spain has adopted only one recent regulation (*Decree PCM/1030/2020*) to establish the Spanish procedure to combat disinformation as required by European directive. Moreover, although fake news cannot be prosecuted directly in Spain outside the scope of crimes against the market and consumers, fake news can include very different types of criminal offence depending on the content and the intention with which it is disseminated. We illustrate these possibilities through some recent judicial decisions on this matter and declarations by the Office of the Attorney-General. It remains to be seen whether this soft approach to combating disinformation will be sufficient to combat this new plague on our contemporary society effectively.

Keywords

Disinformation; Fake news; Freedom of expression; Freedom of information; Censorship; Cybersecurity; Online platforms; Traditional media; Legacy media; Soft law norms; Hard law norms.

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1. Introduction

In recent years, cyberattacks on both public and private institutions have multiplied in all countries around the world. In fact, according to data from the *National Cryptological Center* of the *Ministry of Defense*, Spain is subject to three critical or highly dangerous cyberattacks against the public sector or strategic companies per day (*National Cryptological Center*, 2019). The origin and purposes of these attacks are varied, but it is particularly worrying that some of them come from states

> "whose purpose is to weaken and compromise Spain's economic, technological, and political capacity in an increasingly complex, competitive, and globalized world" ["*que tienen entre sus propósitos debilitar y comprometer la capacidad económica, tecnológica y política de España en un mundo cada vez más complejo, competitivo y globalizado*"] (*National Cryptological Center*, 2019, p. 4).

Alongside these cyberattacks of great relevance to national interests, there are frequent attacks on all types of entities or individuals, of lesser importance to global interests but clearly still of great importance to the lives of those individuals or entities.

Parallel to these cyberattacks focused on disrupting the computer systems of those affected, other attacks are occurring more and more frequently, the aim of which is to disrupt public opinion, thereby damaging the democratic functioning of democratic states as well as international organizations. This type of action has been included under the already well-known term of "disinformation" campaigns. More precisely, this term can be defined as

> "[...] the intentional dissemination of non-rigorous information that seeks to undermine public trust, distort the facts, transmit a certain way of perceiving reality, and exploit vulnerabilities with the aim of destabilization" ["*[…] la difusión intencionada de información no rigurosa que busca minar la confianza pública, distorsionar los hechos, transmitir una determinada forma de percibir la realidad y explotar vulnerabilidades con el objetivo de desestabilizar*"] (**Olmo-y-Romero**, 2019, p. 4).

In this regard, note that it is not uncommon to associate disinformation campaigns exclusively with well-known phenomena such as fake news, false news, or hoaxes, although, as seen from the various elements of the proposed definition, various other actions should also be included when talking about "disinformation" campaigns. Among these, without being exhaustive, one can mention the news approach, or the use of technical means to manipulate reality, such as algorithms, automated bot accounts, etc. Thus, for example, the Director of the *NATO Center Stratcom Center of Excellence*, Janis Sarts, in his appearance before the *Parliamentary Commission on National Security* of Spain, gave as an example the fact that, according to data collected by researchers of the center he directed, 85% of the content in Russian on *Twitter* in which the words "NATO," "Latvia," or "Estonia" appear was generated by robots (*Cortes Generales*, 2017, p. 15).

By way of illustration, let us indicate the methodology that some of these more serious disinformation campaigns utilize with the aim of destabilizing the attacked society. First, an identification and analysis of the social and political vulnerabilities of the victim of the attack is carried out. Second, transmedia narratives to be disseminated through various communication channels are developed. Third, a network of individual media outlets is set up. Finally, automated distribution channels are created (*National Cryptological Center*, 2019, pp. 17-19).

In this regard, it should be emphasized that, although such deception techniques have always been used to achieve political or war aims (*National Cryptological Center*, 2019, p. 5), today, owing to the technological revolution that has taken place worldwide, their danger and scope have multiplied, constituting a serious global risk (**Shao** *et al.*, 2018, p. 2). Furthermore, experts point to various factors that are contributing to the proliferation of such disinformation campaigns. First, it is necessary to highlight their high level of effectiveness, due to the current technological possibilities, normally affecting social vulnerabilities that already exist in the attacked society. Like weeds among the wheat, elements of illegitimate disinformation are inserted into legitimate social and political communication channels, which increases their apparent veracity. Second, their recurrence is explained by the difficulty of attributing responsibility for such campaigns and the obstacles to identifying the link between an orchestrated campaign and its resulting influence on changes in public opinion through the attacked entities. Finally, the extent and dangerousness of such disinformation campaigns make it intrinsically difficult for democratic societies to prosecute these hostile actions against our societies from a legal point of view, unlike other behaviors whose offensive nature is clearer, such as armed attacks, terrorist actions, or even attacks on computer systems or hacking. Indeed, it is difficult to counteract disinformation without simultaneously attacking the fundamental principles of democratic states and societies, such as freedom of expression and opinion, which underpin the fundamental individual rights of both citizens and foreigners.

In this way, we understand that determining the legal instruments with which states fight disinformation campaigns is not only of interest from a sociological perspective by allowing us to delve into the features and dimensions of this new social phenomenon but also of great legal and political interest by revealing the democratic maturity and level of respect for the rule of law prevai-

> Within the EU, a multidisciplinary and cooperative approach has been advocated between all the actors involved, in contrast to a strong regulatory perspective

ling in these states. In this regard, our aim herein is to shed light on the means by which Spain has been equipped to confront this type of campaign and its perpetrators, in particular through the instruments of criminal law. To this end, we first present the context of EU law within which Spanish legislation is framed. We then analyze the Spanish legislation adopted to counter these new forms of attack focused on fundamental values of society and the tools that criminal law provides for this. Finally, we present some conclusions.

We follow the methodology of the legal sciences, analyzing primary sources such as international treaties and other legal regulations of the EU and the *Council of Europe*, as well as the ad hoc legal regulations adopted in Spain or the appropriate criminal regulations, together with the jurisprudence of the European and Spanish courts on the subject. At the same time, relying on secondary sources, we highlight the most relevant and recent doctrinal developments in the fight against disinformation in Spain.

2. Background regarding the fight against disinformation in the EU

2.1. Awareness of the problem within the limits inherent to the rule of law

As mentioned in the "Introduction," neither states nor international organizations, let alone the EU, are spared from disinformation campaigns.

In this sense, it has been increasingly recognized by the Member States, and by the EU itself, that they have suffered massive disinformation campaigns, especially in electoral or political contexts, either from internal groups, as in the recent electoral campaigns in Germany (**Delcker**; **Janosch**, 2021), or from third countries, with the specific objective of discrediting and delegitimizing elections (*European Commission*, 2018c). Recently for example, in September 2021, the High Representative of the European Union for Foreign Affairs and Security Policy, Josep Borrell, stated that some Member States had observed malicious computer activities, collectively referred to as Ghostwriter, that endangered integrity and security, and linked them to the Russian state. High Representative Borrell stated that such malicious computer activities were directed against parliamentarians, government officials, politicians, and members of the EU press and civil society through access to computer systems and personal accounts, and data theft. Borrell concluded that these activities were contrary to the rules of the responsible behavior of states in cyberspace endorsed by all members of the *United Nations* and aimed at undermining the democratic institutions and processes of the Member States of the EU,

> "[…] in particular by enabling disinformation and manipulation of information." (*Council of the European Union*, 2021).

Indeed, as pointed out by the High Representative of the Union, disinformation campaigns are particularly compromising at the EU level by disrupting the free exercise of freedom of information for malicious purposes, which lies very close to the central core of democratic life in the EU and its Member States. In this regard, it should be recalled that the European Court of Human Rights (ECHR) has reiterated in its jurisprudence that

> "freedom of expression, […] constitutes one of the essential foundations of a democratic society and one of the primary conditions for its progress." (*ECHR*, 1992, *Castells v. España*, para. 42).

Indeed, this reality is inscribed in the fundamental rules of the Union. Thus, article 2 of the *Treaty on European Union* (*TEU*) states that democracy is one of the fundamental values of the UE, and is based on the existence of free and independent media, whose operation requires the full exercise of freedom of expression and information. This freedom is guaranteed, in turn, by article 11 of the *Charter of Fundamental Rights of the European Union*. It should be remembered that, according to this provision, freedom of expression and information includes freedom of opinion, freedom to receive or communicate information or ideas without interference by public authorities and regardless of borders, as well as freedom of the media and its pluralism. Article 10 of the *European Convention on Human Rights* (*ECHR*), which is also part of EU law, recognizes the right to freedom of expression. According to its provisions,

> "This right shall include freedom to hold opinions and to receive and impart information and ideas without interference by public authority and regardless of frontiers."

However, the provision's text also clarifies that

> "1. […] This Article shall not prevent States from requiring the licensing of broadcasting, television or cinema enterprises. 2. The exercise of these freedoms, since it carries with it duties and responsibilities, may be subject to such formalities, conditions, restrictions or penalties as are prescribed by law and are necessary in a democratic society, in the interests of national security, territorial disorder or crime, for the protection of health or morals, for the protection of the reputation or rights of others, for preventing the disclosure of information received in confidence, or for maintaining the authority and impartiality of the judiciary."

Meanwhile, European jurisprudence, from both the *Court of Justice of the European Union* (*CJEU*) and the *ECHR*, when interpreting and applying this right, has reiterated that any limitation of freedom of expression must be interpreted restrictively and any limitation must be imposed by regulatory provisions (*CJEU*, 2001, *Connolly v European Commission*, para. 42). Of particular interest to our work is the fact that the *CJEU* has warned authorities that they cannot silence opinions, even if they are contrary to the official view (*CJEU*, 2001, *Connolly v. European Commission*, para. 43). Even for the *ECHR*, article 10 of the *ECHR*

"[…] does not prohibit discussion or dissemination of information received even if it is strongly suspected that this information might not be truthful. To suggest otherwise would deprive persons of the right to express their views and opinions about statements made in the mass media and would thus place an unreasonable restriction on the freedom of expression set forth in Article 10 of the *Convention*." (*ECHR*, 2005, *Salov v. Ukraine*, para. 103).

2.2. Adoption of measures by the EU to combat disinformation

In this context of growing concern about disinformation and the need for the EU to address it, in March 2015, the *European Council* requested that the High Representative of the European Union for Foreign Affairs and Security Policy prepare an action plan on strategic communication (*European Council*, 2015, point 13), which led to the establishment of the *East StratCom Task Force*, operational since September 2015 and part of the *Information Analysis and Strategic Communications Division* of the *European External Action Service*. Its main mission is to develop communication elements and information campaigns aimed at better explaining EU policies in the countries of Eastern Europe.

A few months later, in June 2017, the *European Parliament* began to reflect on the need to adopt legal instruments regarding disinformation and the spread of false content (*European Parliament*, 2017).

In this regard, before getting into our study of the measures adopted by the EU in recent years focused on disinformation, we must point out the need to take into account that this phenomenon can only be addressed from a multidisciplinary perspective, since it affects a multitude of aspects, such as hybrid threats, the digital single market, the regulation of the media in the EU and its Member States, etc. There is no doubt, therefore, that the regulation of the disinformation phenomenon is based on a broad and complex EU regulatory framework, generally from before the explosion of this phenomenon in recent years (**Seijas**, 2020, p. 3). Thus, among many other community regulations involved in a more or less indirect way, one can cite

- *Directive 2013/40/EU*, aimed at the harmonization of the criminal law rules of the Member States in the field of attacks against information systems by establishing minimum rules relating to the definition of criminal offences and applicable sanctions, and improving cooperation between the responsible authorities, including the police and other specialized services;
- *EU Directive 2016/1148*, regarding measures to ensure a high common level of network and information system security in the EU; or
- the package of measures adopted by the *European Commission* in 2018 to ensure free and fair European elections (*European Commission*, 2018c);
- *Directive (EU) 2018/1808* of the *European Parliament and of the Council* of 14 November 2018, which amended *Directive 2010/13/EU* regarding the coordination of certain provisions laid down by law, regulation, or administrative action in Member States concerning the provision of audiovisual media services (the *Audiovisual Media Services Directive*), in the light of changing market realities.

Returning to the study of measures taken specifically to tackle disinformation, it is worth highlighting that, in January 2018, the *European Commission* established a high-level group of experts to advise on political initiatives aimed at countering fake news and disinformation disseminated online, which was of great importance for the evolution of EU action in this field. Its final report, published on March 12, 2018, reviews best practices in the light of fundamental principles and appropriate responses derived from those principles, proposing to the *European Commission* a multidimensional approach to this issue (**Renda**, 2018, p. 21), seeking to involve all relevant parties in any future action and insisting on the need for self-regulation. The report also recommended a number of other measures, such as promoting media literacy among the population, developing tools to empower users and journalists to tackle the phenomenon of disinformation, or protecting the diversity and sustainability of European media. As measures aimed in particular at private actors, the report of the expert group advocated the development of a code of principles that online platforms and social networks should endorse, including, for example, the need to ensure transparency when explaining how their algorithms select the news presented. With regard to monitoring the implementation of the proposed measures, the report suggested the establishment of a multilateral coalition of relevant parties to ensure that any measures agreed are implemented, monitored, and regularly reviewed (*European Commission*, 2018, a). It is interesting to note the complete absence of any recommendation to the community bodies regarding the adoption of mandatory legal standards for the Member States (**Jiménez-Cruz** *et al.*, 2018).

In response to these suggestions, in March 2018, the *European Commission* and the High Representative of the European Union for Foreign Affairs and Security Policy developed the Action Plan against Disinformation, which was approved by the *European Council* in December 2018 (*European Commission* and *High Representative of the European Union for Foreign Affairs and Security Policy*, 2018). This action plan builds on the recognition of the need for political determination and unified action between EU institutions, Member States, civil society, and the private sector, especially online platforms. This unified action should be based on four pillars:

i) improving the capacities of EU institutions to detect, analyze, and expose disinformation;

ii) strengthening coordinated and joint responses to disinformation;

iii) mobilizing the private sector to tackle disinformation, and

iv) raising awareness and enhancing societal resilience. In this sense, it should be noted that, as stated by Fonseca-Morillo in the conception of the plan,

> "[...] media literacy goes beyond the knowledge of information technologies: it is about developing the critical thinking skills necessary to analyze complex realities and distinguish facts from opinions or create content responsibly" ["*[...] la alfabetización mediática va más allá del conocimiento de las tecnologías de la información: se trata de desarrollar las habilidades de pensamiento crítico necesarias para analizar realidades complejas y distinguir hechos de opiniones o crear contenido de manera responsable*"] (**Fonseca Morillo**, 2020, p. 2).

In the action plan, with regard to the necessary legislative development, the *Commission* and the High Representative requested that Member States implement the provisions contained in Article 33a of *Directive (EU) 2018/1808* on audiovisual media services as soon as possible, which required Member States to promote and take measures for the development of media literacy skills and to report regularly to the *European Commission* on the introduction and implementation of such measures.

As a result of the implementation of the 2018 action plan, the EU's Rapid Alert System was launched, being set up between EU institutions and Member States to facilitate the exchange of information on, and coordinate responses to, disinformation campaigns. The Rapid Alert System is based on open-source information and also draws on the expertise of academia, fact checkers, online platforms, and international partners.

Along the same lines, in April 2018, the *European Commission*, to involve private actors (especially online platforms) in the fight against disinformation, proposed a code of practice (*European Commission*, 2018b) that implies self-regulatory rules that must be voluntarily accepted by private operators to achieve the objectives set by the *European Commission*. These self-regulatory rules set out a wide range of commitments, from transparency in political publicity to the closure of false accounts and the demonetization of disinformation providers. The code of practice was subsequently opened for signature by the main operators in this field, many of which (*Facebook*, *Google*, *Microsoft*, *Mozilla*, *TikTok*, and *Twitter*) had already signed by the mid-2020s (*European Commission*, 2021).

On the other hand, we must remember that the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic, more popularly known as coronavirus disease 2019 (Covid-19), has been accompanied by powerful disinformation campaigns, further overshadowing the aforementioned panorama, eventually leading the *World Health Organization* (2019, p. 34) to label the situation as an "infodemic."

> Freedom of expression, which is key to democracy, prevents the imposition of any kind of censorship in the media, even if its content is false. However, the imposition of limits on disinformation is permitted for security or other fundamental reasons

For example, in a joint communication in June 2020, the *European Commission* and the High Representative of the EU warned that, among the multiple harmful elements of the pandemic, some foreign actors and certain third countries, in particular Russia and China, had undertaken disinformation campaigns concerning Covid-19 in the EU, its surroundings, and on a global scale to undermine the democratic debate and exacerbate social polarization (*European Commission* and *High Representative of the European Union for Foreign Affairs and Security Policy*, 2020, p. 4). In that press release, the *Commission* and the High Representative recommended continuing to act through the instruments available to the EU, building on the December 2018 *Action Plan against Disinformation* and in collaboration with the competent authorities of the Member States, civil society, and social media platforms, with the aim of increasing the resilience of citizens. At the same time, the *Commission* and the High Representative stressed the need for this fight against disinformation to be carried out without undermining freedom of expression and other fundamental rights, as well as democratic values. It should be noted that the *Commission* and the High Representative warned that the Covid-19 crisis had exposed the risk that some measures designed to tackle the "infodemic" would be used as a pretext to undermine fundamental rights and freedoms, or would be abused for political purposes inside and outside the EU. The press release went so far as to point out some deviations from the delicate balance between freedom of expression and the criminal repression of disinformation by Member States. For example, the introduction of a new specific offence of dissemination of disinformation into the Hungarian penal code was seen during the state of alert (*European Commission* and *High Representative of the European Union for Foreign Affairs and Security Policy*, 2020, p. 12-13).

Finally, in December 2020, an Action Plan for European Democracy was adopted, emphasizing the well-known approaches to disinformation and reaffirming that the EU, to preserve and strengthen its democratic life, needs to make more systematic use of the full range of tools it possesses to counter foreign interference and influence operations. There is also an emphasis on the need to further develop these tools, in particular by imposing sanctions on those responsible (*European Commission*, 2020b, p. 24). In relation to the cooperation of online platforms and the usefulness of the Code of Practice on Disinformation, the *Commission* recognized that there was a need for

"[…] a stronger approach, based on clear commitments and subject to appropriate monitoring mechanisms, to combat disinformation more effectively." (*European Commission*, 2020b, p. 26).

In this regard, the *European Commission* announced that the future Digital Services Act will propose

"[...] rules to ensure that platforms have greater responsibility when it comes to reporting on how they moderate their content, advertising, and algorithmic processes." (*European Commission*, 2020b, p. 26).

We have referred to the array of measures that the EU has taken in recent years against disinformation, although it is striking that there are no legal acts, such as directives or regulations, from the Member States that are focused on this problem. Undoubtedly, this lack of adoption of hard law norms is due to the sensitivity of this topic, as it is strongly related to freedom of expression and information. This absence was recommended, for example, by the 2018 report from the high-level expert group on disinformation. However, note that, if such disinformation campaigns are part of a hybrid threat from abroad, the primary responsibility for legislating on this matter would rest with the Member States of the EU, since it should not be forgotten that the fight against disinformation campaigns is, to a large extent, a question to be addressed by individual nations. This was highlighted by the *European Commission* and the High Representative of the Union for Foreign Affairs and Security Policy in their 2017 Joint Report to the *European Parliament* and the *European Council* on the implementation of the Joint Communication on Countering Hybrid Threats of April 2016. In the words of those senior European authorities, while the EU can help Member States strengthen their resilience to hybrid threats,

"[…] the primary responsibility lies with the Member States, as the fight against hybrid threats is a matter of defense and national security." (*European Commission* and *High Representative of the European Union for Foreign Affairs and Security Policy* (2017), p. 2).

For these various reasons, there are no solid EU rules on this subject, and this lack of legal reach, with its consequent negative impact on effectiveness, has already been highlighted by the *European Commission*'s first evaluation report on the implementation and effectiveness of the Code of Practice on Disinformation in 2020 (*European Commission*, 2020a) and has also been strongly criticized by some authors, such as Pamment, for whom the EU's policy on disinformation is characterized:

"[...] by a lack of terminological clarity, unclear and untested legal foundations, a weak evidence base, an unreliable political mandate, and a variety of instruments that have developed in an organic rather than a systematic manner. The limited successes the EU has achieved so far –in terms of the creation of instruments such as the Code of practice on Disinformation, the Action Plan Against Disinformation, the *East StratCom Task Force*, and the Rapid Alert System– have been hard earned" (**Pamment**, 2020, p. 5).

3. Legal and criminal context of the fight against disinformation in Spain

3.1. Adopting a multidisciplinary lens to link disinformation to cybersecurity instead of adopting specific regulations against it

Spain was established as a democratic society in 1978 and is a member of European international organizations, such as the *Council of Europe* and the EU, which require respect for the rule of law to join them. Spain is thus not oblivious to the legal requirements linked to the impossibility of limiting fundamental rights, such as freedom of expression and information. Therefore, the *Spanish Constitutional Court* (*CC*) has made declarations similar to the European high courts, pointing out, for example, that the rights guaranteed by article 20.1 of the *Constitution* (freedom of expression and information**;** right to literary, artistic, scientific, and technical production and creation; and **freedom to teach)**

"[...] are not only an expression of a basic individual freedom but are also configured as elements shaping our democratic political system" ["*[…] no son sólo expresión de una libertad individual básica sino que se configuran también como elementos conformadores de nuestro sistema político democrático*"] (*Constitutional Court*, 2007, Judgment 235/2007, Legal basis, 4).

On the other hand and in the same way, when freedom of information has come into conflict with other fundamental rights, such as the right to dignity or to one's own image, the *Constitutional Court* has highlighted the prevalent or preferential nature of the freedom of information regarding its reporting capacity of a free public opinion, an essential element of political pluralism in democratic states (*Congreso de los Diputados*, *Spanish Constitution*, synopsis of article 20).

The limitations imposed by the nature of the rights that accompany freedom of expression in the media and on social networks, and the recommendations from the legal instruments and reports from community sources described above, based on a self-regulatory approach encompassing all the actors involved without giving exclusive prominence to the community or national authorities, highlight the fact that there is no criminal law that directly combats disinformation in Spain. Indeed, this problem is being addressed from a multidisciplinary perspective and by linking disinformation to cybersecurity.

In this vein, a national strategy was developed in 2013 and renewed in 2019 and 2021, integrating cybersecurity into the national security system. This strategy is committed to strengthening a strong but perhaps overly complex institutional structure (including the *National Security Council*, *National Cybersecurity Council*, *Situation Committee*, *Standing*

Committee on Cybersecurity, and *National Cybersecurity Forum*), including public–private cooperation, integration into international initiatives, and the development of a culture of cybersecurity, in particular by promoting a critical spirit for the benefit of truthful and high-quality information that contributes to the identification of fake news and misinformation. Thus, it is obvious that, in the context of cybersecurity, regarding the protection of information systems, more specific legal instruments have been adopted in Spain than those intended to protect against disinformation. Among these is *Royal decree 12/2018*, from September 7, concerning the security of networks and information systems, which transfers into Spanish law the *Directive (EU) 2016/1148* outlined above, on measures aimed at ensuring a high common level of security of networks and information systems in the EU. In this regard, it is important to bring up the opinion of the Operating Director of the *Department of National Security*, for whom all these approaches and measures are proving useful, and Spain is in a prominent position, at both a European and global level, in relation to the protection of cybersecurity (*Cortes Generales*, 2019a, p. 12).

> For the time being, Spain has adopted only one recent regulation (*Decree PCM/1030/2020*) to establish the Spanish procedure to combat disinformation as required by European directive. To date, although this law is being challenged in court and in the European Parliament, it has not been declared unlawful

On the other hand, it should be noted that the Government of Spain approved, on November 30, 2021, the draft of the *General Law on Audiovisual Communication* that transfers the audiovisual media services directive reformed in 2018 into the Spanish legal system, and that is currently reaching the end of its parliamentary process. This bill, which falls into the area of protection against disinformation, emphasizes the desirability of adopting voluntary codes of conduct developed by audiovisual media service providers, industry, business, or professional or user associations and organizations (Article 34). Likewise, it insists, in line with regulations adopted in the EU and Spain, on the implementation of measures aimed at the acquisition and development of media literacy skills in all sectors of society (Article 10) (*Congreso de los Diputados*, 2021).

To end this section and illustrate the launch of campaigns in Spain specifically in the field of digital literacy, involving private actors and civil society, we provide Gallardo-Camacho and Marta-Lazo as an example. They point to the initiative of the Atresmedia group, which has opted to implement mechanisms to guarantee the credibility of the news and press services of its two major networks, Antena 3 Noticias and la Sexta Noticias, as well as the opening of online sites to help citizens check the veracity of the content in the press (**Gallardo-Camacho**; **Marta-Lazo**, 2020, p. 5).

3.2. Options for indirect criminal prosecution of conduct involving disinformation in Spain

As noted above, in Spain, the dissemination of false information or fake news, either alone or as possible elements of disinformation campaigns, does not constitute criminal conduct according to the *Criminal Code*. Although this issue has been the subject of strong debate in recent months considering the amount of fake news generated regarding the pandemic, criminalizing these behaviors in and of themselves would go against the fundamental right of freedom of expression established in article 20 of the *Spanish Constitution* of 1978, which we reproduce herein almost entirely because of its centrality in terms of disinformation:

> "Article 20. 1. The following rights are recognized and protected: a) To freely express and disseminate thoughts, ideas, and opinions through speech, writing, or any other means of reproduction. b) Literary, artistic, scientific, and technical production and creation. [...] d) Free communication or receipt of accurate information by any means of dissemination. […]. 2. The exercise of these rights cannot be restricted by any type of prior censorship. […] 4. These freedoms have their limits in respect to the rights recognized in this section, in the precepts of the laws that implement it, and especially, in the right to dignity, privacy, self-image, and protection of adolescence and childhood. 5. The seizure of publications, recordings, and other means of information may be agreed upon only by court order."
>
> ["*Artículo 20. 1. Se reconocen y protegen los derechos: a) A expresar y difundir libremente los pensamientos, ideas y opiniones mediante la palabra, el escrito o cualquier otro medio de reproducción. b) A la producción y creación literaria, artística, científica y técnica. […] d) A comunicar o recibir libremente información veraz por cualquier medio de difusión. […]. 2. El ejercicio de estos derechos no puede restringirse mediante ningún tipo de censura previa. […] 4. Estas libertades tienen su límite en el respeto a los derechos reconocidos en este Título, en los preceptos de las leyes que lo desarrollen y, especialmente, en el derecho al honor, a la intimidad, a la propia imagen y a la protección de la juventud y de la infancia. 5. Sólo podrá acordarse el secuestro de publicaciones, grabaciones y otros medios de información en virtud de resolución judicial*".]

Thus, with a few exceptions, in the Spanish legal system, disinformation campaigns can only be prosecuted indirectly, on the basis of the consequences of the actions of such campaigns on other, protected legal assets, notwithstanding whether such information or statements have been spread via traditional or online channels. In this latter regard, we point out incidentally that, as Professor Pere Simón warned, the criminal response to opinions spread in the online context does not require the invention of specific responses for this medium by the legislator, but rather the application of the principles operating in the analogue world, adapted where necessary (**Simón-Castellano**, 2021, p. 189). However, some authors have noticed differences in the judicial treatment of disinformation depending on the channel where it appears. Thus, as Professor Cabellos Espiérrez has shown, the great capacity for content dissemination that is intrinsic to the internet and social networks entails that, in jurisprudential practice in Spain, the criminal treatment of content appearing in such channels,

> "[...]is done in a way that tends to restrict the effectiveness of freedom of expression [...]" ["*[…]se haga de un modo que tiende a restringir la efectividad de la libertad de expresión […]*"] (**Cabellos Espiérrez**, 2018, p. 47).

One of these specific exceptions in which the use of fake news is directly pursued can be understood in a broad sense as evidenced by a report from the Technical Secretariat of the *Office of the Attorney-General* entitled "Criminal treatment of fake news" (*Office of the Attorney-General*, 2020, p. 1), which is constituted by false information in the field of crimes against the market and consumers. Indeed, article 282 of the Criminal *Code* punishes

> "[...] manufacturers or traders who, in their offers or advertising of products or services, make false allegations or manifest uncertain characteristics about them, so that they can cause serious and manifest harm to consumers, without prejudice to the penalty that must be applied for the commission of other crimes" ["*[…] a los fabricantes o comerciantes que, en sus ofertas o publicidad de productos o servicios, hagan alegaciones falsas o manifiesten características inciertas sobre los mismos, de modo que puedan causar un perjuicio grave y manifiesto a los consumidores, sin perjuicio de la pena que corresponda aplicar por la comisión de otros delitos*"].

Likewise, article 284.1.2 of the *Criminal Code* punishes with imprisonment or a fine those who, by any means, for profit, disseminate false or misleading news or rumors about persons or companies, on the basis of false data.

As mentioned above, apart from these cases, which would not even properly fall within the framework of disinformation described in the beginning, fake news, which is more related to political motivations, can include very different crimes depending on the content and the intention with which it is disseminated. In this work, the presentation of the possible crimes follows the classification proposed in the cited "Criminal treatment of fake news" report from the Technical Secretariat of the *Office of the Attorney-General*.

Thus, fake news can constitute hate crimes under article 510 of the *Criminal Code*, which punishes

> "[...] the expression of epithets, qualifiers, or expressions that contain a message of hatred that is transmitted in a generic way [...]" ["*[…] la expresión de epítetos, calificativos, o expresiones, que contienen un mensaje de odio que se transmite de forma genérica* […]"] (*Supreme Court*, 2018, Fundamento de Derecho Único),

and is likely to generate a climate of hatred, discrimination, hostility, or violence against certain groups. In this regard, paragraph 3 of that article of the *Criminal Code* provides that:

> "The penalties provided for in the preceding paragraphs will be imposed in the upper half of the range when the acts have been carried out through a social communication medium, through the internet, or through the use of information technologies, so that it becomes accessible to a large number of people." ["*Las penas previstas en los apartados anteriores se impondrán en su mitad superior cuando los hechos se hubieran llevado a cabo a través de un medio de comunicación social, por medio de internet o mediante el uso de tecnologías de la información, de modo que, aquel se hiciera accesible a un elevado número de personas*".]

Recently, in fact, the *Supreme Court* sentenced a person on appeal for a hate crime for issuing expressions inciting hate against a collective on the social network *Twitter* in 2015 and 2016, specifically applying the aggravating circumstance of article 510.3 of the *Criminal Code*, since the author had two accounts on that social network that had around 2,000 followers (*Supreme Court*, 2018, Fundamento de Derecho Único).

In the case where the use of fake news or other possible forms of disinformation is accompanied by the disclosure of real personal data, the *Office of the Attorney-General* considers that such conduct may constitute a crime of discovery and disclosure of secrets described in article 197 of the *Criminal Code* (*Office of the Attorney-General*, 2020, p. 2). Note that the drafting of this article of the *Criminal Code* is the result of the transfer into Spanish law of *Directive 2013/40/EU* on attacks against information systems, which seeks to harmonize the criminal laws of the Member States to curb the

> "[...] threat posed to the EU by the risk of computer attacks of a terrorist or political nature against the computer systems of the Member States' critical infrastructures or of those of the institutions of the EU, and also to the growing trend toward large-scale attacks based on new methods of action, such as the creation and use of infected networks of computers (botnets)" ["*[…] amenaza que supone para la Unión el riesgo de ataques informáticos de carácter terrorista o de naturaleza política contra los sistemas informáticos de las infraestructuras críticas de los Estados Miembros o de las Instituciones de la Unión, e igualmente a la tendencia creciente hacia ataques a gran escala a partir de nuevos métodos de actuación como la creación y utilización de redes infectadas de ordenadores (botnets)*"] (*Office of the Attorney-General*, 2017, p. 2)

Likewise, in the case of fake news that may significantly affect an individual, the crime against moral integrity in article 173.1 of the *Criminal Code* could apply (*Office of the Attorney-General*, 2020, p. 2). In this regard, we must point out how, in the appeal against one of the trials arising from the actions carried out by the notorious "*manada*" in Spain, the defendant's argument that he had created a website under the name “tourlaManada.com” to denounce the frequent disinformation campaigns that appear in the media was not admitted as a reason for acquittal from the commission of the crime against moral integrity in article 173 of the *Criminal Code*. In fact, for the defendant, the website had not been created to offer a guided tour of the places that the five members of the group visited before the acts constituting the crime of sexual abuse,

> “[...] but a vindictive act to draw attention to the disinformation of the media and its tendency to collect harsh news without verifying sources” [“*[…] sino un acto reivindicativo para llamar la atención sobre la desinformación de los medios y su tendencia a recoger noticias escabrosas sin contrastar fuentes*”] (*Provincial Court of Navarre*, 2020, pp. 4-5). .

Disinformation campaigns or the use of fake news may also include some element of terrorist offences. Thus, on occasion, the perpetrator of a disinformation campaign has been convicted of a terrorist recruitment and indoctrination offense. This was the case, for example, of a self-styled Islamic State militant residing in Melilla who resorted to a disinformation campaign by introducing fake news on Facebook about the conquest of Mosul by the Daesh, and who, in the end, was sentenced in the *National Court* in 2021 for the crime of recruitment and terrorist indoctrination, provided for and punished in article 577.1 and 2 of the *Criminal Code* (*Audiencia Nacional*, 2021, p. 6)

On the other hand, fake news or disinformation campaigns can also be considered to represent acts that violate the right to dignity. Thus, for example, the recent publication on social networks of certain videos concerning a person of public relevance, edited in a biased way, was considered by a judge as a distortion of the original publication’s true content as a whole, thus representing a manipulation of public opinion and, therefore, a qualified action of disinformation and intentional manipulation. It should be added that this was one of the elements that led to the conviction of the defendant in the case for violation of the plaintiff’s right to dignity (*Provincial Court of Granada*, 2020, Fundamentos de Derecho Primero). Likewise, the *Office of the Attorney-General* believes that fake news can extend to the crimes of slander, from articles 205-206 of the *Criminal Code*, or of defamation, from articles 20–209 of the *Criminal Code* (*Office of the Attorney-General*, 2020, pp. 2–3).

Similarly, fake news regarding possible curative methods without medical confirmation or that are clearly ineffective could constitute one of the crimes against public health provided for in articles 359 et seq. of the *Criminal Code*. However, if these behaviors additionally imply an intention to do business, they would represent a crime of fraud from articles 248 et seq. of the *Criminal Code* (*Office of the Attorney-General*, 2020, p. 3).

3.3. Recent attempts to combat disinformation more directly

After this succinct review of the current state of affairs regarding the possible criminal prosecution of disinformation indirectly through the damage it can do to various legal assets, we must now address the various recent attempts to regulate this issue directly, given the pressing nature of this problem in our society in recent years. In this regard, it should be borne in mind that countries in close proximity to Spain have shown the same concern, particularly in electoral matters. For example, Germany enacted a specific law in June 2017 against posting hate speech, child pornography, terrorism-related articles, and false information on social media, given the inadequacy of voluntary measures taken by social media platforms (*Bundesrepublik Deutschland*, 2017). Likewise, in November 2018, France adopted a law against the manipulation of information, with the objective of better protecting democracy against various forms of intentional dissemination of false news (*République Française*, 2018).

In Spain, it must be noted that, in December 2017, the *Partido Popular* parliamentary group presented a proposal in the *Congress of Deputies* aimed at directly regulating fake news (*Congreso de los Diputados*, 2018). However, this proposal was rejected in March 2018 and was not acted upon (*Cortes Generales*, 2018, p. 5). In addition, in those months, some groups also opposed the regulation of fake news because they understood that such regulation could go against the fundamental right to freedom of expression and was unnecessary because there was already regulation of fake news and propaganda in the *Electoral Law* as well as the *Criminal Code* (*Cortes Generales*, 2019 b).

A few months later, in October 2020, and in the midst of the pandemic, the coalition government formed by the *Spanish Socialist Workers’ Party* and *Unidas Podemos* adopted a law to combat disinformation. According to its own text, the purpose of the law is no other than to respond to the requirements of the EU and

> “[...] implement at the national level the policies and strategies promulgated in the field of the fight against disinformation[...]” [“*[...]implementar a nivel nacional las políticas y estrategias promulgadas en el ámbito de la lucha contra la desinformación[...]*”]

and define the bodies, agencies, and authorities that make up the system, as well as define the procedure of their actions (*Government of Spain*, 2020, *Law PCM/1030/2020*). Specifically, within the *National Security System*, an institutional framework was established for the fight against disinformation, consisting of (1) the *National Security Council*, (2) the *Situation Committee*, (3) the *Secretary of State for Communication*, (4) the *Permanent Committee against Disinformation*, (5) the responsible public authorities, and (6) the private sector and civil society. As part of the planned procedure, the law established a series of action or activation levels from the *National Security System* aimed at combating disinformation in view of the danger level of the threat. It should be highlighted that a level 4 is envisaged, which will involve coordination

> "[...] of the response at the political level by the *National Security Council* in case of public attribution of a disinformation campaign to a third State" ["*[…] de la respuesta a nivel político por parte del Consejo de Seguridad Nacional en caso de atribución pública de una campaña de desinformación a un tercer Estado*"] (*Government of Spain*, 2020, *Law PCM/1030/2020*).

In this regard, it is worth highlighting how the doctrine usually warns of the risks and dangers of leaving controlling and limiting powers in matters related to freedom of expression to the administrative authorities, while advancing the desirability of attributing these powers to the judiciary (**Cabellos-Espiérrez**, 2018, p. 48). In fact, the aforementioned 2020 law to combat disinformation was subject to an appeal before the *Supreme Court* by various institutions and for various reasons, but in particular because its implementation would imply a kind of prior censorship, likely to jeopardize the right to freedom of expression and the right to information, without the due guarantees required by the *Spanish Constitution* for the limitation of fundamental rights, or for not respecting the organic structure provided for in *Law 36/2015 on National Security*. The *Supreme Court* has issued decisions on incidental or procedural legitimacy matters regarding the plaintiffs (*Supreme Court*, 2021a; b; c; d), but in a recent judgment, from October 18, 2021, it entered the main substance of the matter. In it, the *Supreme Court* rejected the basis of the contentious administrative appeal filed by *Confilegal*, which, in essence, attacked the provisions of *Law PCM/1030/2020* because it gave prominence regarding actions to be taken against disinformation to the *Department of National Security*, whose action lies beyond judicial control, thus depriving the *National Intelligence Center* of its primary role and

> "[...] which is deprived of the functions attributed by article 4 of Law 11/2002, functions that it performs – and here would be the core of its challenge – under judicial control [...]" ["*[…] que queda desapoderado de las funciones atribuidas por el artículo 4 de la Ley 11/2002, funciones que desempeña – y aquí estaría el meollo de su impugnación – bajo control judicial[…]*"] (*Supreme Court*, 2021, and *Fundamento de Derecho Sexto*).

However, for the *Supreme Court*, the contested law fully respects the organic and jurisdictional structure provided for in *Law 36/2015 regarding National Security* and, therefore, it declared the law to be in accordance with the legal structure (*Supreme Court*, 2021e, Ruling).

A question regarding *Law PCM/1030/2020* was also addressed to the *Commission* in the *European Parliament* in November 2020. In particular, the *Commission* was first asked whether it had analyzed the fact that the monitoring committee proposed in the law under examination

> "[…] is controlled by the Secretary of State for Communication, which reports directly to the *Ministry of the Presidency*, and that the order speaks of examining 'the freedom and pluralism of the media'?" ["*[...] está controlado por la Secretaría de Estado de Comunicación, que depende directamente del Ministerio de la Presidencia, y de que la orden habla de examinar 'la libertad y pluralismo de los medios'?*"].

Additionally, the *Commission* was asked whether it considered

> "[…] that the content of the government decision is irrelevant and that it is sufficient to use the pretext of the fight against disinformation to accept any measure" ["*[…] que el contenido de la decisión gubernamental no tiene relevancia y que es suficiente con utilizar el pretexto de la lucha contra la desinformación para aceptar cualquier medida*"] (*European Parliament*, 2020).

And on February 25, 2021, Vice President Jourová, on behalf of the *Commission*, responded in writing noting that the Ministerial Order in question

> "[...] updates the existing Spanish system to prevent, detect, and respond to disinformation campaigns and to establish coordination structures" ["*[…] actualiza el sistema español existente para prevenir, detectar y responder a las campañas de desinformación y para establecer estructuras de coordinación*"] [...], and "[...] it does not constitute a legal basis for deciding on the content of information provided by the media" ["*[…] no constituye una base jurídica para decidir sobre el contenido de la información facilitada por los medios de comunicación*"].

In addition, in the *Commission*'s view,

> "[...] the Permanent Committee is responsible for monitoring and evaluating online disinformation campaigns, investigating their origin, and determining whether the case should be referred to the *National Security Council* for a political response, such as diplomatic action or retaliatory measures when the perpetrator is a foreign state. This work is the responsibility of the central government and is in line with the 2018 Action Plan against Disinformation, which called on Member States to strengthen their capacities in the fight against disinformation." (*European Parliament*, 2021).

4. Conclusions

In this paper, we have analyzed the different legal ways to prosecute disinformation in Spain, which were already provided for by criminal law, and the attempts made in recent years (when the phenomenon reached very worrying dimensions) to legislate and control it through other channels. We have contextualized this legal study in the fight against disinformation within the EU, to determine, where appropriate, the possible origin, context, and motivation of Spanish regulations.

> It remains to be seen whether this soft approach or the recourse to soft law measures to combat disinformation will be sufficient to defeat this new plague on our contemporary society

This research thereby highlights the important limit that every democratic entity encounters concerning the right to freedom of expression and information when it comes to fighting disinformation. We must emphasize that this freedom has been recognized as fundamental and inherent to the rule of law, in both the legal regulation and Spanish communities, by the most relevant European and national instruments in the field, such as the *TEU*, the *Charter of Fundamental Rights of the European Union*, the *ECHR*, or the *Spanish Constitution*, as well as by the consolidated jurisprudence of European and national courts. Thus, freedom of expression goes so far as to allow criticism of community or national authorities, whether spread through traditional media or new social networks, even if not true. Any limitation to this, which must be based on assessed national security or other legitimate grounds, must be imposed by law, as well as subject to the relevant parliamentary and judicial guarantees. Any type of administrative censorship of content outside these parameters is alien to European values and foreign to the Spanish legal system.

For these reasons, we find that, at the EU level, disinformation has been fought with a series of non-normative measures that advocate a multidisciplinary and cooperative approach among all the actors involved, from EU authorities to online platforms through the Member States. As a corollary, that same approach has been the framework that has been followed in Spain. Thus there is only one recent regulation to fight disinformation in a direct and specific way, *Law PCM/1030/2020*, which rather than regulating content, tries to respond to the European directive requiring the implementation of procedures and organic structures in each Member State to fight disinformation. Although the law in question has been appealed through the courts, mainly on the basis of the fear of the absence of judicial guarantees in the procedure, all judicial decisions have so far declared it to be in accordance with law, as has the *European Commission* when questioned in the European Parliament on the matter.

In this way, although the debate on the adequacy of fighting disinformation through solid legal regulations or hard law remains open (**Magallón-Rosa**, 2019, p. 345), it seems that the field is moving to support cooperation between international and national authorities, self-regulation by private actors, such as online platforms, or launching educational campaigns among the population to increase their resilience to the problem. In this vein, we described herein the specific case of digital literacy promotion by an important audiovisual group in Spain to try to guarantee the veracity of the content offered in its newscasts, and to teach users to identify hoaxes in social networks.

It remains to be seen whether this soft approach, or recourse to soft law measures to combat disinformation, will be sufficient to defeat this new plague on our contemporary society.

It would be highly desirable if the Russian invasion of Ukraine and the fake news accompanying this war could serve as a definitive wake-up call to raise awareness of the importance of these issues.

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Las innovaciones periodísticas más destacadas en España (2010-2020): características e impacto organizacional, industrial y social

The most prominent journalistic innovations in Spain (2010-2020): organizational, industrial and social characteristics and impact

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Resumen

La aparición de nuevos actores y plataformas tecnológicas, los cambios en los hábitos de consumo y la transformación del ecosistema digital han acelerado el proceso de innovación periodística en la última década (2010-2020), acentuado por la pandemia por Covid-19. El periodismo atraviesa desde hace años un proceso de cambio permanente que afecta a las prácticas, los productos y los profesionales. Este estudio identifica las innovaciones periodísticas más destacadas, describe sus características y analiza su impacto en función del valor aportado en la organización, de su alcance en la industria y de su contribución a la sociedad. Se han realizado entrevistas semiestructuradas a un grupo de expertos (n=22), integrado por académicos y profesionales. Codificadas y sumadas las innovaciones (n=60) de un total de 253 menciones, se analiza el alcance de las mismas en los tres ámbitos –organización, industria y sociedad– para obtener el listado de las 20 más relevantes. Los resultados indican que la innovación surge de forma incremental en cómo se produce, organiza, distribuye y sostiene el periodismo. Algunas innovaciones han influido de manera sustancial en la organización y en la sociedad, como el modelo de socios o el *fact-checking*; sin embargo están aún lejos de ser adoptadas de modo generalizado en la industria. El periodismo de datos se ha catalogado como la innovación periodística más relevante por implicar cambios en la producción, generar un periodismo de calidad e impulsar su adopción por otros agentes del sector.

Palabras clave

Periodismo; Innovación en periodismo; Producción periodística; Organización de medios; Comercialización; Distribución; Periodismo de datos; Verificación de noticias; Streaming; Medios de comunicación.

Abstract

The emergence of new players and technological platforms, changes in consumer habits, and the transformation of the digital ecosystem accelerated the process of journalistic innovation in the last decade (2010-2020), emphasized by the Covid-19 pandemic. Journalism has undergone a process of permanent change, affecting practices, products, and professionals. In this context, this study identifies the most prominent journalistic innovations, describes their characteristics, and analyzes their impact in terms of the value provided in organization, their scope in the industry, and their contribution to society. To achieve this, semistructured interviews were conducted with a group of experts (*n* = 22) made up of academics and professionals. Once the innovations (*n* = 60) from a total of 253 references were coded and added up, the scope of these changes in the organizational, industrial, and societal fields was analyzed to obtain a list of the 20 most relevant. The results indicate that innovation emerges incrementally in how journalism is produced, organized, distributed, and sustained. Some innovations have substantially influenced organization and society, such as the membership model or fact-checking; however, they are still far from being widely adopted in the industry. Data journalism has been catalogued as the most relevant journalistic innovation because it implies changes in production, generates quality journalism, and encourages its implementation by other representatives in the sector.

Keywords

Journalism; Innovation in journalism; Production; Newsroom and media organization; Marketing; Distribution; Data journalism; Fact-checking; Streaming; Media.

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1. Introducción

La profundidad de los cambios en la producción, distribución y consumo de información, en los modelos de negocio y en la organización de los medios ha consolidado el interés científico por la innovación periodística durante la última década (**Belair-Gagnon**; **Steinke**, 2020; **Bleyen** *et al.*, 2014; **Dogruel**, 2015; **García-Avilés**, 2021a). La búsqueda de los términos "media innovation" o "innovation in journalism" en los títulos y los resúmenes de los artículos indexados en la base de datos *Social Sciences Citation Index* muestra el crecimiento de esta materia en el período 2010-2020 (gráfico 1).

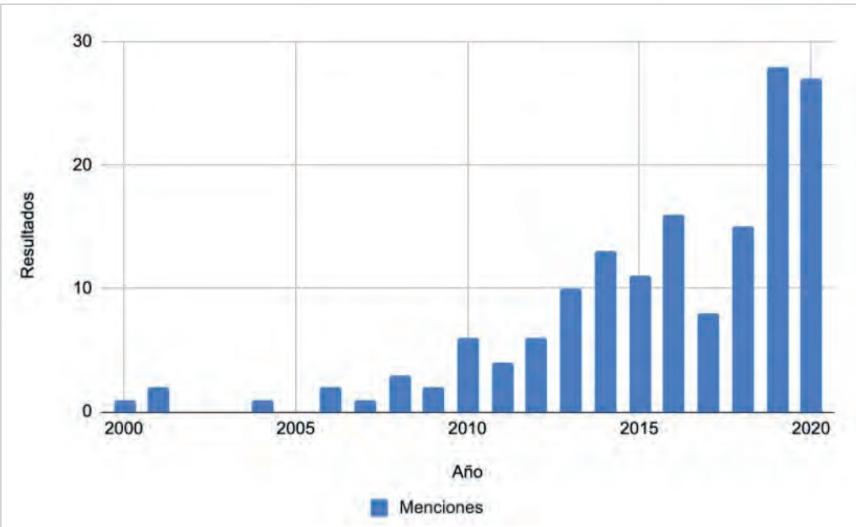

Gráfico 1. Menciones de "media innovation" e "innovation in journalism" en revistas indexadas en el *Social Sciences Citation Index* entre 1/01/2000 y 31/12/2020.

Aunque la investigación sobre la innovación en periodismo ha crecido significativamente, son todavía escasas las contribuciones teóricas, metodológicas y sistemáticas (**García-Avilés**, 2021a). Su estudio generalmente se ha vinculado con las estrategias con las que las organizaciones mejoran sus procesos productivos y la relación con las audiencias para aportar mayor valor (**Belair-Gagnon**; **Steinke**, 2020). Entre los temas tratados destaca la innovación en los contenidos y los géneros (**Sixto-García** *et al*., 2022; **Trillo-Domínguez**; **Alberich-Pascual**, 2020), la transformación de los modelos de negocio (**Baxter**, 2015; **Barland**, 2020; **Marín-Sanchiz** *et al*., 2019), los procesos de producción (**García-Avilés** *et al*., 2018) y la relación de los medios con sus públicos (**Meijer**, 2020) mediante nuevos canales, como los boletines (**Rojas-Torrijos**; **González-Alba**, 2019; **Guallar** *et al*., 2021), las notificaciones (**Pedrero-Esteban**; **Herrera-Damas**, 2017) o las aplicaciones de mensajería (**Palomo**; **Sedano**, 2018).

> La investigación sobre la innovación en periodismo ha crecido significativamente, aunque son todavía escasas las contribuciones teóricas, metodológicas y sistemáticas

También se ha estudiado la creación de laboratorios de innovación (**Salaverría**, 2015; **Zaragoza-Fuster**; **García-Avilés**, 2018; **Hogh-Janovsky**; **Meier**, 2021) y de unidades especializadas en verificación o en periodismo de datos (**Valero-Pastor**; **Carvajal**, 2017). Este escenario se ha interpretado como la era del periodismo de alta tecnología (**López-García**; **Vizoso**, 2021) que ha propiciado el desarrollo de startups periodísticas (**Valero-Pastor**; **González-Alba**, 2018), con innovadoras culturas organizacionales y nuevos perfiles profesionales (**Valero-Pastor** *et al*., 2019).

El crecimiento científico en torno a la innovación periodística constata la relevancia y rapidez de los cambios industriales en el sector. Sin embargo, la innovación no ha sido la única respuesta a la crisis económica y a la disrupción digital (**Campos-Freire**, 2015): algunas empresas mediáticas han optado por la batalla jurídica, la presión y el lobby para modificar determinadas leyes y proteger sus intereses (**Díaz-Noci**, 2019).

Según una investigación de 2015, la innovación en España se desarrollaba especialmente en los márgenes de la industria informativa tradicional, mediante proyectos periodísticos impulsados por emprendedores, entidades sin ánimo de lucro o ex periodistas de medios consolidados (**De-Lara** *et al*., 2015). Desde entonces los medios tradicionales han reaccionado de forma drástica, reconociendo que sus esfuerzos debieron volcarse en sus medios digitales, a pesar de su fragilidad económica y la dificultad para consolidar modelos sostenibles a medio y largo plazo (**Salaverría**, 2021).

Parece pertinente, por tanto, revisar qué innovaciones periodísticas se han producido en la última década, cuál es su naturaleza y qué han aportado al proceso periodístico y a la organización empresarial. El interés por indagar en esta materia crece por el impacto que ha tenido la pandemia por Covid-19 en las redacciones y su influencia en los procesos de innovación (**García-Avilés**, 2021b).

El objetivo general del estudio es identificar las innovaciones periodísticas más destacadas en España (2010-2020). De él parten los siguientes objetivos secundarios:

O1. Diseñar una metodología para medir el valor aportado (interno, externo y social).

O2. Analizar las características de las innovaciones más relevantes, en qué área de la organización se producen y su naturaleza.

O3. Jerarquizar la relevancia de esas innovaciones en función del impacto en la propia organización, en la industria y en la sociedad.

2. Innovación en periodismo: concepto, áreas y medición de impacto

La gestión de la innovación consiste en transformar un impulso inicial de mejora, teniendo en cuenta todos los factores que favorecen o impiden su desarrollo (**Haner**, 2002). La innovación periodística se traduciría en desarrollar nuevos elementos, no solo tecnológicos, que mejoren la distribución, adquisición, procesamiento, exhibición y almacenamiento de los contenidos (**Schmitz-Weiss**; **Domingo**, 2010, p. 1158).

Generalmente la innovación alude a un proceso que incorpora enfoques y prácticas novedosas, conjugando la calidad y unos estándares éticos exigentes que permiten mejorar los servicios y productos, e incrementar los ingresos o la audiencia (**Pavlik**, 2013). El concepto alude a

> "la capacidad para reaccionar ante los cambios en los productos, procesos y servicios, mediante el uso de habilidades creativas que permiten identificar un problema o necesidad y resolverlo mediante algo nuevo que aporte valor al medio y a los consumidores" (**García-Avilés** *et al*., 2018, p. 29).

Este enfoque comprende la estrategia, la estructura y los procesos que generan valor para la organización informativa, fomentando la creatividad y el servicio público (**Küng**, 2015).

La innovación aporta valor al medio y a sus destinatarios (**García-Avilés** *et al*., 2019). Sin embargo, la creciente atención por la innovación también ha despertado reticencias entre los investigadores que exigen una reflexión más profunda sobre los cambios y la adopción tecnológica indiscriminada (**Creech**; **Nadler**, 2018; **Peters**; **Carlson**, 2019). Como señalan algunos autores, la innovación debe estar orientada a la mejora de la vida de las personas mediante servicios y soluciones (**Bruns**, 2014), evitando el

> Los investigadores exigen una reflexión más profunda sobre el carácter de los cambios y la adopción tecnológica indiscriminada

determinismo tecnológico o los destellos de la novedad técnica (**Küng**, 2015). El trabajo de **De-Lara** *et al*. (2015) aportó una propuesta metodológica para medir la innovación en cuatro áreas de las organizaciones (producto o servicio, procesos de producción y distribución, comercialización, y organización), basada a su vez en la clasificación recogida en el *Manual de Oslo* en su tercera edición (*OCDE*, 2018).

Las innovaciones no solo repercuten en la propia compañía que las implanta: pueden lograr la aceptación por parte de la industria y crear tendencia

En la medición de la innovación en la industria se han establecido dos grados de impacto:

a) Innovaciones radicales;

b) Innovaciones incrementales (**Christensen**, 1997).

Las innovaciones radicales incluyen novedades con consecuencias de gran alcance en la economía y el mercado a través de la destrucción creativa (**Schumpeter**, 1943, pp. 81-84), y se producen con menos frecuencia dentro del periodismo (**Storsul**; **Krumsvik**, 2013). En cambio, las innovaciones incrementales aluden a las mejoras graduales que modifican determinados componentes o procesos de la empresa (**Tidd**; **Bessant**, 2005). Estas innovaciones se encuentran en los productos y servicios, en la automatización de procesos o en la mejora de las herramientas (**Nieminen**, 2019). **Storsul** y **Krumsvik** (2013, p. 18) consideran que la mayoría de las innovaciones periodísticas son incrementales, debido a que implican cambios leves que

> "no desafían la economía o la lógica del mercado de los medios".

Las innovaciones no solo repercuten en la propia compañía que las implanta: pueden lograr la aceptación por parte de la industria y crear tendencia. De acuerdo con **Covin**, **Slevin** y **Heeley** (2000, p. 177), los pioneros en el mercado obtienen con su comportamiento empresarial una ventaja competitiva sostenible que obliga al resto de actores a adaptarse al nuevo escenario. Las innovaciones no solo benefician a los destinatarios directos del mensaje periodístico, sino que también generan externalidades positivas por el carácter de bien público de la información (**Hamilton**, 2016). Como sostiene **Bruns** (2014), para comprender plenamente los procesos de innovación en el periodismo se requiere necesariamente una perspectiva holística de las innovaciones, que considere la ecología mediática como un elemento constitutivo de las estructuras sociales. Es decir, es pertinente rastrear la repercusión de las innovaciones tanto en los medios como en la sociedad porque la innovación mediática es una fuente de cambio social, pero está por ver si también se puede considerar una innovación social (**Bruns**, 2014).

En efecto, es relevante no sólo identificar qué procesos, productos o áreas del periodismo han cambiado, sino también entender cómo han influido en la industria y, finalmente, en la sociedad. El periodismo en la era digital resulta más difícil de definir y sus fronteras se desdibujan (**Carlson**; **Lewis**, 2015; **Malik**; **Shapiro**, 2017), pero su papel sigue siendo fundamental para garantizar los valores básicos de las sociedades democráticas –la libertad, la justicia, la igualdad y la solidaridad– (**McQuail**, 1992), especialmente cuando internet contribuye a transformar el papel de las audiencias (**Masip** *et al*., 2019).

En su estudio pionero sobre la difusión de la innovación, **Rogers** (2003) plantea cómo se produce su adopción y cómo altera las estructuras sociales. Se trataría de un proceso comunicativo de ciertos agentes al ecosistema mediático y social. La innovación se manifiesta como un proceso socializante, pues se dilucida en el entorno de la redacción, la industria y la sociedad.

Existe la posibilidad de abordar estas innovaciones periodísticas como innovaciones sociales, como "nuevas ideas que funcionan para cumplir objetivos sociales" (**Mulgan** *et al*., 2007, p. 8). En este sentido, a partir del *Manual de Oslo* (*OCDE*, 2018) pueden identificarse indicadores para calibrar el impacto social de la innovación periodística: educación, igualdad, enfoque de género, lucha contra la pobreza, sostenibilidad y acciones ambientales, compromiso con la diversidad, transparencia y democracia, cohesión social y mejoras en la calidad de vida.

3. Método

El trabajo parte de un panel de expertos para obtener una muestra inicial de innovaciones, a la que posteriormente se aplica una medición jerárquica basada en el impacto de cada una. Este segundo paso permite detectar las innovaciones más destacadas de entre la muestra en términos de su influencia organizacional, industrial y social.

En la fase del panel de expertos se realizaron entrevistas semiestructuradas en profundidad a un grupo de ellos (n=22) con el objetivo de recoger las innovaciones periodísticas más relevantes, así como su justificación. Para alcanzar ese panel definitivo, se seleccionó primero a 50 expertos procedentes de medios, organizaciones profesionales, consultorías y universidades que destacan por su conocimiento de la materia. La selección se hizo mediante un muestreo intencionado (**Koerber**; **McMichael**, 2008), válido para estudios cualitativos. Se pudo contactar con 40 de ellos y, finalmente, aceptaron participar 22.

El guion de la entrevista se diseñó meticulosamente para que los expertos revisaran las innovaciones de la década al completo, invitándoles a pensar en cada área y dándoles el tiempo necesario para remontarse al pasado. Además, recibieron el cuestionario con antelación para reflexionar previamente sobre sus respuestas (ver anexo 1).

En la selección de la muestra se utilizaron criterios de paridad, diversidad geográfica y perfil profesional (tabla 1). Se concedió el anonimato a los sujetos con la garantía de no difundir información personal, preservando así la confidencialidad. Las entrevistas se efectuaron telemáticamente entre enero y marzo de 2021, con una duración media de 45 minutos. Se grabaron y transcribieron para su posterior análisis.

Tabla 1. Composición del panel de expertos

Cargo	Área	Lugar	Género	Edad
Director de Diseño	Medios	Madrid	Hombre	38
Editor Jefe	Medios	Madrid	Mujer	40
Profesor de Periodismo	Universidad	Pamplona	Hombre	50
Profesor de Periodismo	Universidad	Sevilla	Hombre	45
Profesor de Periodismo	Universidad	Madrid	Hombre	45
Profesor de Periodismo	Universidad	Murcia	Hombre	45
Profesor de Periodismo	Universidad	Madrid	Mujer	35
Director de Innovación	Medios	Madrid	Hombre	40
Jefe de Contenidos	Medios	Madrid	Hombre	60
Consultor de audiencias	Consultoría	Madrid	Hombre	38
Consultor de audiencias	Consultoría	Madrid	Hombre	55
CEO	Consultoría	Madrid	Hombre	58
CEO	Startups	Madrid	Hombre	42
Analista	Startups	Madrid	Mujer	42
Jefe de Comunicación	Asociaciones	Londres	Hombre	40
Jefe de Comunicación	Asociaciones	Madrid	Hombre	35
Presidente	Asociaciones	Valencia	Mujer	35
Jefa de Producto	Medios	Madrid	Mujer	44
Subdirector	Medios	Madrid	Hombre	44
Fundadora	Startups	Barcelona	Mujer	49
CEO	Medios	Madrid	Mujer	54
Jefe de Innovación	Medios	Barcelona	Hombre	53

3.1. Recopilación y selección

Para la codificación de las entrevistas, la extracción de las innovaciones y su justificación, se elaboró un libro de códigos que explica cada elemento. En la primera codificación se recopilaron 253 menciones a innovaciones periodísticas ocurridas entre 2010 y 2020. La recogida consistió en la anotación de los diversos items en una base de datos con los siguientes elementos objetivos extraídos del discurso del entrevistado:

- Título de la innovación.
- Ejemplo (si lo menciona el experto).
- Descripción de la innovación.
- Problema/necesidad que resuelve.
- Experto que la menciona.

Para facilitar la interpretación de los resultados, tras la primera codificación se completó la base de datos con nuevos elementos de fuentes secundarias, esta vez ajenos al discurso del experto:

- Año de origen de la innovación.
- Nivel de impacto (interno, industrial, social).
- Área de innovación (producción, distribución, organización, comercialización).
- Contextualización de la innovación.
- Relación con Covid-19.

Posteriormente se consolidaron las menciones de los 22 entrevistados, agrupándolas en categorías similares, lo que generó un total de 60 innovaciones. Finalmente se seleccionaron las innovaciones más relevantes según su impacto, atendiendo al objetivo del presente estudio, mediante una fórmula que tuviera en cuenta las menciones de los expertos y la evaluación de los investigadores. Para ello se estableció un marco interpretativo con unos criterios consistentes que permitiera analizar las innovaciones periodísticas desde una perspectiva lo menos sesgada posible.

> Es pertinente rastrear la repercusión de las innovaciones tanto en los medios como en la sociedad porque la innovación mediática es una fuente de cambio social

La muestra final (n=60) fue sometida a una evaluación de su impacto en los tres niveles expuestos (organización, industria y sociedad), que se corresponden con una visión holística de la innovación en periodismo:

- Impacto en la organización. Mide la incidencia positiva de las innovaciones en un medio de comunicación a nivel interno, porque suponen una mejora de sus procesos, resultados o productos y servicios, no sólo en términos económicos.
- Impacto en la industria. Considera el grado de aceptación de una innovación en la industria y su capacidad para crear tendencia o cambiar el escenario, obligando a los competidores a imitarla por medio de la apropiación.
- Impacto en la sociedad. Analiza la repercusión de las innovaciones en la sociedad, fomentando valores identificados en el *Manual de Oslo* (2018).

A la hora de asignar puntuaciones a cada innovación, se concedió un valor diferente según en qué niveles (organización, industria o sociedad) tiene impacto. Así, el impacto en la industria obtiene un valor mayor que en la organización, y el impacto en la sociedad, a su vez, es superior al que se da exclusivamente en la industria. De este modo se otorga una puntuación superior cuanto mayor es el número de personas a las que afectan las innovaciones (**Hamilton**, 2016). Se considera que a una innovación que tenga unos efectos sociales positivos porque favorece la calidad democrática se le debe asignar una puntuación mayor que a otra que únicamente beneficie a una organización concreta o a la industria en general.

Una vez determinada la necesidad de medir de forma diferente los niveles de impacto, se establece un puntaje para cada criterio, teniendo en cuenta también el grado de innovación de las iniciativas. En los ámbitos de la organización y la industria se acude a la propuesta reflejada en el marco teórico (incremental o disruptiva). De esta manera, en el nivel organizacional solo las innovaciones consideradas más rompedoras obtienen 5 puntos, mientras que no se puntúan las más continuistas porque se trata del grado mínimo de contribución. En el nivel de impacto industrial, las innovaciones incrementales sí obtienen 5 puntos porque se ha comprobado que no todas las innovaciones internas se replican en otros medios. Por su parte, las radicales reciben 10 puntos, entendiendo como tales las que han revolucionado las prácticas, productos y procesos en la industria.

Por último, ante la dificultad de medir el grado de una innovación social debido a sus múltiples receptores y ramificaciones (**Echeverría** *et al*., 2011), se decide emplear únicamente el criterio de la existencia o no de impacto social en cada innovación. La tabla 2 resume estas puntuaciones jerarquizadas según los niveles de impacto y grados de innovación.

Tabla 2. Síntesis de los parámetros de medición del impacto en la innovación

Nivel de impacto	Grado	Puntuación
Organización	Radical	5 puntos
	Incremental	0 puntos
Industria	Radical	10 puntos
	Incremental	5 puntos
Sociedad		10 puntos

La puntuación se asignó mediante la técnica del "grupo de consenso", en la que se busca un nivel de acuerdo colectivo de quienes elaboran el estudio sobre las cuestiones en las que no haya pruebas definitivas y se dependa de factores cualitativos (**List**, 2001). Este proceso facilita la cohesión entre las opiniones diversas mediante el diálogo y la exposición de puntos de vista. En este caso, este método se empleó para determinar el impacto de cada innovación dentro de la organización, en la industria y en la sociedad, al entenderse que podía darse cierta disparidad de criterios sobre el grado de incrementalidad o disrupción.

Además, cada nueva mención realizada por un experto suma otro punto. Por lo tanto, la clasificación final de las innovaciones no solo depende de la atribución de impacto mediante el consenso de los investigadores, sino que también recae en la prevalencia en las entrevistas previas. Las escalas de medición de la tabla 2 se diseñaron teniendo en cuenta el número de expertos participantes, de modo que la máxima valoración de impacto posible de una innovación (25) guarda un equilibrio con el máximo número de menciones posibles (22).

Por otro lado, considerando que en la muestra de expertos se incluyen profesionales en activo, se decide sumar solo 0,5 puntos por cada mención que provenga de expertos involucrados en el desarrollo de esa innovación determinada. Por ejemplo, si una persona que se dedica a producir podcasts considera que este formato es una de las mayores innovaciones en la última década, la suma de la innovación "Podcasts" se incrementa 0,5 puntos en lugar de 1.

4. Resultados

Tras el análisis de las entrevistas y la suma de los diversos indicadores se han obtenido las 20 innovaciones más relevantes implementadas en el ecosistema informativo español durante el período 2010-2020 (tabla 3). Las cinco primeras clasificadas fueron las siguientes:

- el periodismo de datos (33 puntos);
- el modelo de socios (28,5);
- el *fact-checking* (28);
- los contenidos *mobile first* (24); y
- los nuevos formatos y narrativas periodísticas (24).

La clasificación pone de manifiesto algunos de los retos que han surgido tras la pandemia por Covid-19, que ha impulsado el periodismo científico (17), el teletrabajo (19) y el streaming (21).

En el área de producción, destaca el uso del periodismo de datos (33), las iniciativas de *fact-checking* (28) y el desarrollo de nuevos formatos (24), entre otras innovaciones relevantes como el uso de la inteligencia artificial (19), la especialización en periodismo científico (17) y la adopción de un enfoque de género en los contenidos (17).

En la distribución, sobresale el aprovechamiento de canales como los dispositivos móviles (24) y las redes sociales (23); los productos basados en el canal, como los boletines (21), el streaming (21) y los *podcasts* (18); y la personalización de los contenidos (15).

En cuanto a la organización, despunta la tendencia al trabajo en remoto (19), seguida de diversas manifestaciones de la cultura colaborativa: la formación de equipos multidisciplinares en las redacciones (17), los laboratorios de medios (17), y la colaboración interempresarial mediante la participación en consorcios de investigación (17).

Por último, en el área de comercialización, el modelo de socios (28,5) y las suscripciones (23) aventajan a otras innovaciones como el uso del *branded content* (14) o el modelo de las fundaciones sin ánimo de lucro (14), evidenciando la transición de la industria hacia modelos sustentados en el pago por parte de los usuarios.

Las innovaciones analizadas adquieren relevancia en el nivel organizacional e industrial porque aportan valor para los medios que las implementan y por el alcance de su adopción por parte del sector; y en el nivel social, porque benefician a la sociedad en alguno de los indicadores contemplados, como el acceso a una información de calidad. Únicamente 9 de las 20 innovaciones repercuten en los tres niveles: periodismo de datos, redes sociales, modelo de socios, *mobile first*, nuevos formatos, streaming, periodismo científico, enfoque de género y la participación en consorcios de medios.

Tabla 3. Clasificación general de las innovaciones periodísticas más relevantes

Innovación	Total
Periodismo de datos	33
Modelo de socios	28,5
Fact-checking	28
Mobile first (entornos, notificaciones)	24
Nuevos formatos (infografía, inmersivo)	24
Suscripción	23
Redes sociales	23
Boletines o *newsletters*	21
Streaming	21
Trabajo en remoto	19
Inteligencia artificial	19
Podcasts	18
Enfoque de género	17
Organización/equipos	17
Laboratorios de innovación	17
Periodismo científico	17
Consorcios de medios	17
Contenido personalizado	15
Branded content	14
Fundación sin ánimo de lucro	14

Las innovaciones descartadas no se han considerado relevantes para el estudio porque recibieron menos menciones de los expertos (ver anexo 2). El análisis de las tres dimensiones de impacto tampoco ha sido significativo, indicador clave en el cribado final. Las más citadas fueron el uso de la analítica, el periodismo enfocado en nichos temáticos, la creación de eventos digitales, las estrategias *crossmedia* o los modelos de negocio B2B.

4.1. Innovaciones en la producción

La innovación más destacada es el periodismo de datos, caracterizado por la búsqueda de historias contenidas en grandes series de datos y la elaboración de visualizaciones que transmiten la información de forma comprensible para la audiencia. Aunque se trata de una mejora incremental de la producción periodística, el panel de expertos destaca la apropiación de esta especialidad en la industria, su contribución al esclarecimiento de temas profundos y los beneficios sociales que aporta.

Los expertos también subrayan su visible impacto en la propia organización que la aplica, a través de la creación de unidades y secciones específicas para este tipo de piezas, como sucede en *Ara*, *El confidencial*, *El español* (**Rivera-Hernández**; **Rojas-Torrijos**, 2016), *El país* y *Datadista*. Los encuestados resaltan la incorporación de profesionales especializados en medios que carecían de

> El periodismo de datos, el modelo de socios, el *fact-checking*, los contenidos *mobile first* y los nuevos formatos y narrativas periodísticas son las cinco innovaciones más destacadas

estos perfiles y la aparición de servicios de creación o repositorio de contenidos de datos, como *Graphext* o *Screple* de *Nació digital*. Con respecto a su impacto social, destacan el auge de esta modalidad durante la pandemia por el Covid-19 por el afán explicativo de ingentes cantidades de datos sobre contagios, fallecimientos, vacunaciones, etc.

> La pandemia ha eliminado por la fuerza el tabú de que se puede hacer un medio sin que nadie pise la redacción

El *fact-checking* es la segunda innovación más destacada en la producción, que combate directamente la desinformación que circula en las redes sociales y servicios de mensajería.

> "En esta década, el *fact-checking* ha supuesto un *boom* para la calidad del producto [...]. Proyectos como *Maldita* fueron una innovación en España, muchas redacciones incorporamos equipos para hacer ese trabajo", afirma un experto.

De hecho, han nacido proyectos mediáticos al albur de esta actividad (**Vázquez-Herrero** *et al*., 2019). Esta innovación tiene una alta repercusión social, porque su tarea contribuye a la convivencia social, protege a la ciudadanía de la desinformación, diluye la dependencia informativa de los medios tradicionales y lidia con la crisis de credibilidad.

El empleo de nuevos formatos es otra de las innovaciones más destacadas en la producción. Sobresale el uso de la infografía interactiva para la explicación de temas complejos durante la pandemia por Covid-19.

> "Se está realizando una buena cobertura a través de formatos interactivos y explicativos. Las herramientas infográficas ayudan a explicar situaciones complicadas o en evolución", indica una entrevistada.

Por ese motivo, también se valora su alto aporte social. Con respecto a la adopción en la industria, sin embargo, esta modalidad no ha sido generalizada.

Algunas de estas iniciativas, apunta uno de los entrevistados, han sido galardonadas a nivel internacional, como los trabajos de *eldiario.es*, con piezas como el buscador de inmatriculaciones de la Iglesia; y de *Ara*, que obtuvo un notable volumen de tráfico con el interactivo sobre el uso del catalán, "Guia per viure en català", entre otros (figura 1). Estos formatos brindan notables posibilidades de inmersión y personalización.

El enfoque de género introducido en la cobertura periodística es otra de las innovaciones más relevantes por dos razones: la inclusión del feminismo entre los principios editoriales de los medios y la elaboración de contenidos con dicho enfoque en secciones dedicadas exclusivamente a las temáticas de igualdad. Los expertos argumentan que hasta 2018 no había medios significados con la causa feminista.

> "Después del 8M de 2018, hubo un *shock* total para los medios, que vieron la oportunidad de manifestarse así y empezaron a nombrar a directoras de género, como en *El país* o *eldiario.es*. Algunos incluyen a mujeres en puestos directivos, aunque sea en niveles intermedios", afirma una entrevistada.

Esta innovación ha transformado los flujos de trabajo, ha repercutido en los contenidos del producto periodístico y, a su vez, en la sociedad:

> "La adopción del feminismo ha mejorado el periodismo, ha promovido que se estén tratando otros temas", concluye la experta.

El periodismo científico supone una apuesta renovada de los medios en la última década, especialmente a partir de la crisis sanitaria de 2020. Una de las entrevistadas recuerda que el periodismo especializado en ciencia y sus secciones estaban "relegados a curiosidades". Tras la pandemia por Covid-19 resulta más evidente por qué las redacciones deberían contar con periodistas capaces de entender y divulgar la ciencia. Los expertos mencionan casos como *Materia*, de *El país*, o la *Agencia Sinc*, y reivindican la necesidad del periodismo científico en temas como los efectos de las tecnologías, la emergencia climática o la salud.

Figura 1. Captura del reportaje interactivo del diario *Ara* "Guia per viure en català"
https://interactius.ara.cat/viureencatala

Finalmente, el panel de expertos destaca el papel de la inteligencia artificial en la producción automática y masiva de noticias basadas en texto. Se subraya que la inteligencia artificial permite generar contenidos sobre temas deportivos, meteorológicos o bursátiles, y facilita la configuración de una oferta personalizada y el diseño de los muros de pago algorítmicos. El alcance de esta tecnología para las organizaciones y los usuarios ha sido muy relevante, porque es el sostén de la publicidad programática, que supone una fuente de ingresos notable en los medios, según un entrevistado.

> La existencia de innovación no garantiza la calidad ni tampoco la sostenibilidad mediática

4.2. Innovaciones en la distribución

Entre los resultados en esta área destaca el *mobile first* relacionado con la experiencia de usuario y el producto informativo en los dispositivos móviles. Se menciona la creación de productos específicos para móvil y tableta; la optimización de las versiones móviles de los medios, con tecnologías como *Amp* o *Facebook instant articles*; la gestión intencional de las notificaciones *push* y la distribución de los contenidos en entornos de otras plataformas. Los profesionales señalan el cambio de mentalidad en el diseño de producto, la redacción de titulares o la planificación editorial.

"Hace 10 años se trabajaba pensando en *desktop*. El foco estaba ahí, no se atendía al *mobile*", expone un experto.

El uso periodístico de las redes sociales es otra innovación destacada. El panel de expertos ha valorado la introducción incremental de estrategias y tácticas para acercarse a los públicos fuera de su matriz, en plataformas con gran alcance. También se reconoce la utilidad de haber reorientado el producto y la distribución hacia las redes sociales por su capacidad de generar tráfico al sitio web, a pesar de una excesiva dependencia de los cambios tecnológicos de este tipo de redes.

Por ese motivo, los entrevistados han valorado el uso inteligente de las redes sociales para conectar con las audiencias, a diferencia de otras prácticas en detrimento de la calidad del producto o la credibilidad del medio orientadas al mero incremento del tráfico web. Asimismo, la existencia de estas mismas plataformas ha tenido un impacto en la sociedad y en el periodismo, porque dotan a los usuarios de nuevas capacidades que cuestionan la posición tradicional de los medios.

También destacan los boletines informativos o *newsletters*, un formato editorial que se envía por correo electrónico. De escasa novedad como canal, se subraya la recuperación y renovación del formato en un ecosistema mediático transmedia, ya que los boletines ofrecen una experiencia editorial al tiempo que mejoran la distribución y atraen usuarios al canal principal. El desarrollo de esta innovación ha sido incremental, aportando valores como la intimidad y la fidelidad con la audiencia. Este formato se ha adoptado ampliamente hasta el punto de constituirse en un producto en sí mismo, señalan varios expertos.

El streaming comprende las retransmisiones en directo a través de plataformas como *YouTube* o *Twitch*, según se menciona en las entrevistas, en la cobertura de eventos en vivo, ruedas de prensa o actividades retransmitidas por periodistas. Se justifica la relevancia organizativa e industrial de esta innovación por su capacidad de atraer audiencias más jóvenes. También se destaca que gracias al streaming han aparecido comunicadores que incorporan nuevas audiencias y trascienden el universo de los videojuegos, la música o el entretenimiento. Se incide en que la pandemia por Covid-19 ha acelerado la relevancia de estos canales. Entre los ejemplos se menciona la cobertura de las elecciones presidenciales de Estados Unidos 2020 realizada en *Twitch* por Emilio Doménech (*@Nanisimo*) (figura 2), periodista de *Newtral*. Estas plataformas fomentan formatos más participativos que rompen la rutina unidireccional de las coberturas en vivo de los medios.

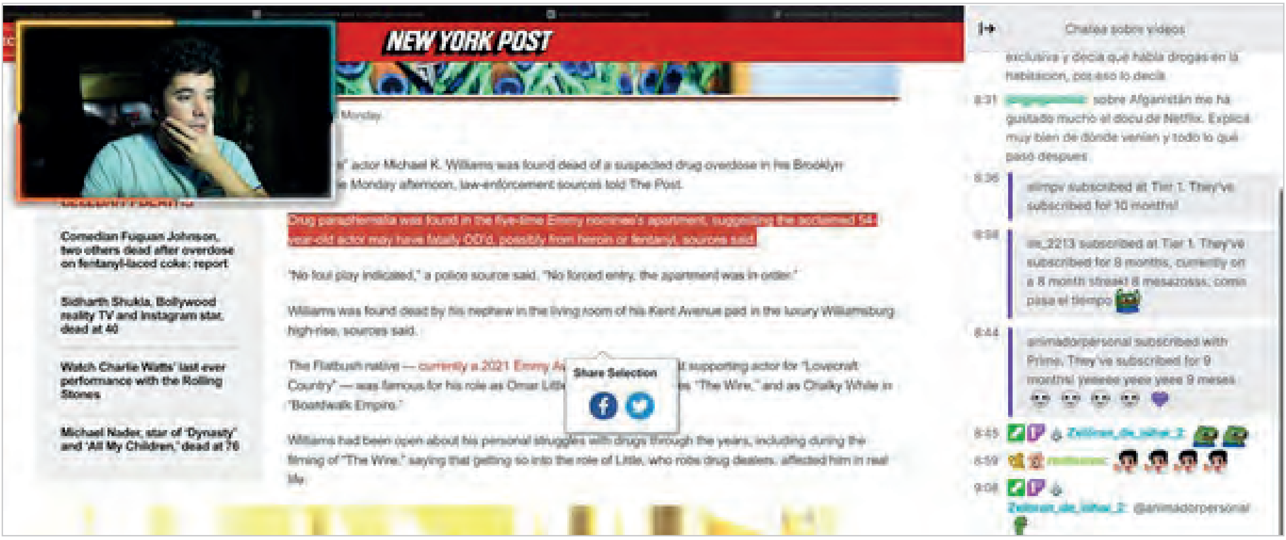

Figura 2. Captura de pantalla de una emisión en streaming de Emilio Doménech en *Twitch*

El auge del podcast implica la recuperación del formato en un ecosistema móvil con un consumo más cómodo y accesible, incrementando la calidad sonora y las posibilidades de monetización. Así lo describe un directivo de un medio nativo digital:

> Destaca la colaboración entre diversos medios como una innovación organizativa, especialmente en redes internacionales

> "Salir del formato de texto y pasar a algo más llevadero que se puede escuchar en dispositivos móviles en *Spotify* o cualquier tipo de redes bajo demanda, sin estar pendiente de la pantalla, da bastante dinamismo y versatilidad".

También se destaca cómo este formato recupera la importancia del nicho, la autoría y la voz del periodista o elementos narrativos como la serialización y la sensación de intimidad. Sin embargo,

> "existe un uso realmente bueno, pero no masivo. Se han hecho podcasts de nicho de calidad, pero poco rupturistas", apunta una experta.

Varios entrevistados subrayan el surgimiento de plataformas agregadoras y productoras de podcasts, como *Cuonda*, *Podimo* o *Podium podcast*, y la diversificación de marca de *Prisa* y el lanzamiento de *Podium studio* para innovar en publicidad para podcast.

Finalmente, otra de las innovaciones recogidas en la distribución ha sido la difusión de contenido personalizado. Los medios tratan de ofrecer a su audiencia una experiencia de consumo de sus productos lo más cercana posible a sus intereses, gracias a la recolección y tratamiento de datos de los usuarios. Esta innovación ha sido reformulada por las empresas periodísticas con un indudable impacto en la industria.

> "Hacer un periódico único para cada lector según sus intereses es algo innovador. Ahora parece una obviedad porque se ve en redes sociales, pero en el ámbito periodístico tiene un valor muy grande: cambiamos el foco de la masa a los clientes", indica un directivo.

De este modo se pueden conocer los gustos de los usuarios y aportar valor específico.

4.3. Innovaciones en la organización

El teletrabajo permite la elaboración de productos y contenidos en remoto con nuevas herramientas y flujos. Según varios expertos, destaca su amplia adopción en la mayoría de las redacciones debido a la crisis de la Covid-19, lo que evidenció que el trabajo periodístico también puede realizarse a distancia, sin que el producto se vea afectado. La pandemia ha eliminado por la fuerza el "tabú" de que se puede hacer un medio sin que nadie pise la redacción, señala uno de los académicos. Se valora que la presencialidad no volverá a tener la misma predominancia y que las redacciones adoptan estructuras más flexibles, a través de sistemas híbridos que faciliten la conciliación. Por ejemplo, algunos destacan cómo el *eldiario.es* ha aprovechado la coyuntura para reestructurar su redacción, con "sitios calientes" en lugar de puestos fijos y mayor espacio para el contacto entre los periodistas y los socios. Para varios entrevistados, el calado de los cambios y su extensión en el sector conceden al teletrabajo un grado de relevancia industrial máximo:

> "Es un impacto definitivo en el mundo del periodismo, en la forma en la que compartimos ideas, en los flujos de trabajo y en cómo nos relacionamos con las fuentes", apunta un participante.

Otras tres innovaciones se enmarcan en la tendencia hacia la colaboración entre profesionales, unidades y medios (**De-Lara**; **Santos**, 2019; **Valero-Pastor**; **Carvajal**, 2017): la formación de equipos multidisciplinarios en las redacciones, los laboratorios de medios y los consorcios de investigación internacionales.

La instauración del trabajo colaborativo entre diferentes perfiles profesionales, cuya cooperación no era tan importante en el periodismo tradicional, resulta esencial para ampliar las competencias de los medios en el ecosistema digital.

> "Es lo que permite el periodismo de datos, el *branded content*, la personalización, la escritura automática de noticias... Todo eso viene precedido de un paso previo que es dejar de tener a periodistas trabajando con periodistas y ponerles a trabajar con diseñadores, desarrolladores, etc.", asegura uno de los entrevistados.

Estos equipos han pasado de ocupar un papel residual en las redacciones a convertirse en fuentes de conocimiento central en las organizaciones.

> "La pregunta es: ¿cómo se organiza el medio? Muchos han reconocido que se tenían que reorganizar internamente y lo han hecho", afirma una entrevistada.

Algunos participantes destacan que la reconfiguración de los equipos de trabajo debe ser resultado de un proceso de experimentación continua para dar respuesta a los retos.

Por otro lado, los laboratorios de medios son manifestaciones concretas de estas unidades multidisciplinarias con flujos de trabajo independientes de la redacción editorial. Sus miembros se dedican a aspectos innovadores como el desarrollo de vías de negocio, la optimización y el diseño del producto y la experimentación con nuevas narrativas. Esta tendencia se encuentra en retroceso por su coste elevado y el riesgo de crear silos en los que la innovación y el conocimiento obtenido no trasciendan al resto de la redacción. Sin embargo, hay apropiaciones exitosas de esta transformación organizativa, como *El confidencial Lab* o *RTVE Lab*, en el que las innovaciones permean sobre todas las áreas. En palabras de un experto,

> "es extremadamente innovador desde una perspectiva técnica, también es innovador para la organización, para la distribución, la producción y la interacción con las audiencias".

Por ello, se atribuye un alto impacto a los laboratorios en el nivel organizacional, aunque no tanto en un nivel industrial por su baja adopción en el mercado de referencia.

Por último, destaca la colaboración entre diversos medios como una innovación organizativa, especialmente en redes internacionales. En concreto, se valora el desarrollo de investigaciones periodísticas que requieren cuantiosos recursos personales y técnicos en su producción y distribución, porque el periodismo tradicionalmente se ha caracterizado por la cultura individualista de protección de las exclusivas, incluso en el plano intraorganizacional. La popularización de los consorcios de medios, con el *International Consortium of Investigative Journalists* (*ICIJ*) como máximo exponente, ha supuesto una ruptura de estas dinámicas y ha posibilitado el desarrollo de trabajos informativos con impacto social, como "Los papeles de Panamá". El esfuerzo que requiere este tipo de productos refuerza el protagonismo de los periodistas gracias a su colaboración con otros profesionales (**Larrondo-Ureta**; **Ferreras-Rodríguez**, 2021). Según un entrevistado, cuyo medio participa en estas iniciativas,

> "probablemente no haya investigaciones de tanto calado como estas, que hayan impactado tanto sobre una sociedad globalizada (...) Eso ha sido clave en el lanzamiento de exclusivas y el impacto mundial que puede tener una información mediante la alianza de medios internacionales".

4.4. Innovaciones en la comercialización

En comercialización destacan dos innovaciones relacionadas con el auge de los modelos de negocio basados en el pago de los usuarios: la membresía y las suscripciones. Aunque las suscripciones y muros de pago recibieron un mayor número de menciones por parte de los expertos, el modelo de socios aparece en un lugar superior en la clasificación por generar un mayor impacto social. Las ventajas del modelo de membresía, según los expertos, residen en que además de reducirse la dependencia de los ingresos publicitarios, se permite que quienes no pueden pagar accedan al contenido, generando así un bien social superior. En este modelo los lectores pagan por la sensación de pertenencia a una comunidad en lugar de como transacción por unos bienes o servicios, por lo que se promueve la identificación de la audiencia con los valores editoriales de la marca.

El modelo de membresía por excelencia en España, citado como ejemplo por la totalidad del panel de expertos, es el de *eldiario.es*. Este medio nació en 2012 bajo este modelo, que sirvió de referente para la evolución del negocio digital de otros medios internacionales, como *The guardian*. Uno de los consultados explica:

> "Los suscriptores de *eldiario.es* lo hacen no solo porque vaya a tener un contenido premium diferente al gratuito, sino para que otros disfruten de ese periodismo".

Por otro lado, el panel de expertos resalta la transición general del mercado de medios en España hacia los modelos sostenidos por los ingresos de los usuarios, ya sea mediante muros de pago medidos, freemium, algorítmicos u otros sistemas de venta de contenidos. La adopción de esta innovación comercial se ha acelerado en los últimos años con gran repercusión. Los expertos subrayan las estrategias empleadas por las entidades en esa transición, como el muro de registro en *El país* para la lectura de opinión o los modelos automatizados de propensión al pago que se empiezan a adoptar en *El mundo* y *El confidencial*. Esta generalización en el mercado justifica su nivel máximo de impacto industrial, como afirma una experta, porque

> "los muros de pago están cambiando las reglas de juego".

La apropiación de estos modelos provoca cambios profundos en las organizaciones. Por un lado, de forma más evidente, contribuye a la sostenibilidad por medio de la diversificación de las vías de ingresos, ante la caída de las cuentas publicitarias. Por otro lado, prioriza la estrategia de la calidad frente a las tácticas de la cantidad.

> "Se debe cambiar a un modelo donde se premie, en lugar de llegar a más audiencia, hacer contenido más especializado y de más calidad para personas a las que les puede interesar", indica una experta.

También sobresale el *branded content*, utilizado para paliar las menguantes facturaciones publicitarias. Se trata de un tipo de publicidad nativa, elaborado con estilo y narrativa periodística, sin menciones directas a la marca dentro del contenido. Los ejemplos se caracterizan por un formato cuidado, visualmente atractivo, que aporta valor periodístico a la audiencia. El caso de *EC brands* es paradigmático, ya que comenzó como un proyecto experimental del laboratorio de *El confidencial* y se convirtió en una agencia *end-to-end*, con los perfiles profesionales y recursos necesarios para cubrir el proceso completo, desde la comercialización hasta la redacción, pasando por el diseño y el desarrollo tecnológico de las piezas.

El panel de expertos resalta la transición general del mercado de medios en España hacia los modelos sostenidos por los ingresos de los usuarios

> "Como alternativa o complemento al formato publicitario *display*, las marcas apuestan por el *branded content* sabiendo que el contenido no es un publirreportaje, sino un producto elaborado por los periodistas para el público, con un formato atractivo", asegura un experto.

Este tirón entre los anunciantes provoca que cada vez más medios españoles cuenten con el *branded content* entre sus vías de ingresos. La adopción generalizada del formato implica un alto nivel de impacto industrial en España, aunque no se perciben cambios radicales en los flujos de trabajo de las compañías ni se registran externalidades sociales positivas.

Por último, se incluye en la lista de innovaciones la constitución de organizaciones periodísticas bajo la forma jurídica de fundación sin ánimo de lucro. Se considera una innovación por su misión social y la naturaleza del modelo de ingresos. Mediante este tipo de estructura legal, los medios fortalecen su independencia editorial, porque acceden a donaciones, desgravaciones o subvenciones públicas. Por ejemplo, *Porcausa* trabaja sobre asuntos relacionados con el desarrollo social, la desigualdad, la exclusión y la pobreza, dentro y fuera de España, y *Maldita*, que empezó como asociación y se constituyó como fundación sin ánimo de lucro a finales de 2020, se focaliza en la lucha contra la desinformación. El ejemplo más destacado para el panel de expertos es la *Fundación Ciudadana Civio*, cuyo cometido es vigilar a los poderes públicos y promover la transparencia.

> "Es beneficiosa y disruptiva para la sociedad democrática. Independientemente de quién esté en el gobierno; ha promovido una mejora de la ley de transparencia", afirma un experto,

cuya declaración justifica por qué se atribuye a esta innovación un impacto social.

5. Discusión y conclusiones

Este estudio revela las principales innovaciones que se han producido en el periodismo español en la última década (2010-2020), explica su naturaleza y su grado de impacto en las organizaciones, en la industria y en la sociedad. Trata de paliar la carencia de análisis sistemáticos contrastables sobre el fenómeno de la innovación (**Belair-Gagnon**; **Steinke**, 2020; **García-Avilés**, 2021a) y además contribuye a radiografiar la transición digital de los medios tradicionales (**Salaverría**, 2021). Partiendo del *Manual de Oslo* (2018) y de otros trabajos preliminares (**De-Lara**, 2015), se presenta la innovación como un fenómeno holístico que emerge en diversas áreas de la actividad periodística: producción, distribución, comercialización y organización.

Los hallazgos obtenidos reflejan la velocidad de los cambios en el ecosistema informativo y acotan su alcance. La innovación periodística realizada en España muestra que el periodismo digital se produce, distribuye, organiza y sostiene cada vez mejor, aunque el grado de adopción es desigual. La existencia de innovación no garantiza la calidad ni tampoco la sostenibilidad mediática (**Salaverría**, 2021). Aunque se han identificado procesos innovadores, no se ha constatado su extrapolación plena al resto del sector, incluso en fenómenos como el *fact-checking* o el periodismo de datos.

Este estudio descubre que la industria mediática española tiene a su alcance agentes, procesos y técnicas para evolucionar, más allá de otras estrategias defensivas o conservadoras (**García-Santamaría**; **Pérez-Serrano**, 2020; **Bonet-Bagant**, 2017). Se deduce la existencia de una cultura y una práctica de la innovación, que responde a un esquema de aportación de valor, aunque tampoco escapa de la tendencia a usar etiquetas biensonantes o introducir novedades vacías de significado (**Küng**, 2015).

El artículo explica cómo las innovaciones periodísticas repercuten hacia el interior de las propias organizaciones, generan tendencia y provocan cambios en la industria y, finalmente, tienen un impacto social, por la envergadura del valor aportado. Sin embargo, si se contrasta la aparición de estas novedades con el estado económico financiero general del sector o la precariedad laboral durante la última década, se entienden mejor las reticencias de algunos académicos ante la euforia de la innovación (**Creech**; **Nadler**, 2018; **Peters**; **Carlson**, 2019).

La mayoría de las innovaciones detectadas han supuesto una mejora incremental (**Storsul**; **Krumsvik**, 2013) en la forma de producir, distribuir, organizar y comercializar la actividad periodística. Algunas han logrado impactar de manera sustancial en la organización: el modelo de socios o el *fact-checking* son innovaciones radicales a nivel interno, la primera por su capacidad de abrir nuevas dinámicas de sostenibilidad en el periodismo, la segunda por atender a una demanda latente y provocar el nacimiento de medios especializados de contrastado éxito. Otras innovaciones relevantes a nivel interno (laboratorios, trabajo en remoto, inteligencia artificial…) no han tenido un impacto significativo en la sociedad. El periodismo de datos, sin embargo, alcanza el grado máximo de relevancia por implicar cambios en la producción, impulsar la apropiación por otros agentes del sector y generar un periodismo de más calidad.

Se entiende la ecología mediática contemporánea como un elemento constitutivo de las estructuras sociales (**Bruns**, 2014). Se han producido innovaciones periodísticas que han tenido un impacto significativo a nivel social, porque han facilitado el acceso a información, han ayudado a sostener actividades de interés público o han abierto nuevos enfoques periodísticos que añaden diversidad, transparencia o pluralismo (*OECD*, 2018).

> La mayoría de las innovaciones detectadas han supuesto una mejora incremental en la actividad periodística

Las áreas de producción y distribución del mensaje periodístico son las más propicias en los esfuerzos innovadores de los medios. Los nuevos formatos, que se han volcado en el avance de la tecnología, el aumento del consumo en teléfonos móviles y la implantación de laboratorios de innovación, creados *ad hoc* para producir nuevos contenidos y aportar un mayor valor al usuario, espectador o lector, han compartido junto a los boletines informativos y los podcasts un espacio de relevancia en la estrategia de las cabeceras periodísticas.

> Algunas innovaciones periodísticas son mutaciones de tendencias previas (*branded content*, boletines, periodismo de datos)

Pero los medios también innovan en la forma de organizarse y de sostenerse económicamente. La implementación de sistemas de inteligencia artificial permite elevar la eficiencia productiva, especialmente en labores que tienen un alto coste humano y organizativo (**Thurman**; **Lewis**; **Kunert**, 2019). Los modelos de suscripción, que pueden presentarse en múltiples formatos y estrategias –membresía, muros de pago porosos, *freemium* e híbridos entre los dos anteriores– han supuesto una estrategia de supervivencia de los medios a largo plazo. Además, se han identificado innovaciones incrementales que afianzan la idea de marca en los consumidores: por ejemplo, a través de los eventos digitales y presenciales, que permiten abrir la puerta a la participación del usuario y aumentar la transparencia de los procesos de trabajo.

Algunas innovaciones periodísticas son mutaciones de tendencias previas (*branded content*, periodismo científico, boletines, nichos temáticos, periodismo de datos), que se replican de forma significativa en la industria. Son innovadoras porque sufren modificaciones novedosas que aportan valor a sus destinatarios de una manera inédita (organizaciones, audiencias y/o sociedad). Pero la mayoría de las innovaciones son adopciones de tecnologías ajenas o de desarrollos externos a la industria.

Por otro lado, en la recogida de las innovaciones se ha percibido el efecto de la pandemia por Covid-19, tanto en la explicación de la innovación de verificación, como en la aparición del trabajo en remoto, el streaming o el modelo de suscripción, acelerado por la crisis publicitaria. La crisis sanitaria ha significado un impulso definitivo a prácticas innovadoras latentes, que no habían sido adoptadas de forma extensiva en la industria (**García-Avilés**, 2021b).

Entre las limitaciones del estudio conviene destacar el riesgo del sesgo cognitivo de los expertos consultados al destacar lo reciente, en detrimento de innovaciones que fueron significativas a principios de la década. Esta debilidad podría haberse paliado con un estudio longitudinal, elaborado con diversas catas anuales. En todo caso, en el diseño del cuestionario y en las entrevistas se buscó expresamente que los entrevistados contemplaran la década íntegra, dándoles el tiempo necesario y compartiendo el guion con antelación. Por tanto, el resultado no es el de una fotografía del momento, a pesar de que la obtención de las menciones de las innovaciones se produce al cabo de diez años. En cuanto al análisis particular de cada innovación, también ha sido un reto analizar el impacto social sin unos parámetros cuantitativos claros. La técnica del "grupo de consenso" ha servido para argumentar en favor de una postura y para buscar puntos de acuerdo, mientras que se han recogido nuevos argumentos para defender la relevancia social de cada innovación. En ese punto fueron útiles los indicadores propuestos en el *Manual de Oslo* (2018) para discernir sobre la contribución social de la innovación periodística.

Finalmente, se abren varias líneas de investigación que pueden contribuir a comprender el fenómeno de la innovación en periodismo: informes comparativos internacionales sobre las innovaciones periodísticas; estudios sobre la recepción de estas innovaciones en poblaciones específicas, o análisis crítico normativos que valoren los cambios en la práctica profesional de algunas de las innovaciones y evalúen efectos adversos en el largo plazo.

> La crisis sanitaria ha significado un impulso definitivo a prácticas innovadoras latentes

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8. Anexos

Anexo 1. Cuestionario guía

Observaciones preliminares

Nos centraremos, por un lado, en el análisis de innovaciones específicas y, por otro lado, en las iniciativas periodísticas o medios de comunicación.

Por favor, no mencione innovaciones desarrolladas por empresas para las que trabaja o con las que tenga una relación directa (es decir, consultor, colaborador).

Por favor, piense en las innovaciones entendiendo el periodismo en un sentido amplio, incluyendo la radio y televisión, medios impresos y digitales, medios tradicionales, así como organizaciones de noticias sin ánimo de lucro, start-ups informativas, publicaciones de nicho (deportes, ciencia, tecnología, cultura...), empresas de tecnología con servicios de noticias, medios nativos digitales, laboratorios de medios, medios locales, etc. Las innovaciones pueden identificarse en las áreas de la producción, la organización, los procesos internos o la comercialización de los productos y servicios.

1a. ¿Podría mencionar las 10 innovaciones periodísticas exitosas más innovadoras o relevantes de España, lanzadas hace al menos un año? Estamos considerando las innovaciones aplicadas entre los años 2011 y 2020. Por exitosas se entiende que las innovaciones siguen en curso y han logrado objetivos o resultados deseados.

1b. ¿Por qué nombró cada innovación?

Respuesta asistida (es posible que haya varias respuestas):

- Económicamente beneficiosa para la organización productora
- Económicamente significativo para toda la industria
- Modelo y pionero de toda la industria
- Mejora la calidad periodística
- Disruptiva/radical para la calidad periodística
- Beneficiosa para una sociedad democrática (por ejemplo, formación de opinión)
- Disruptiva para una sociedad democrática
- Extremadamente innovadora desde una perspectiva técnica
- Innovador para la organización (para la distribución, para la producción, para la interacción con las audiencias)
- Otro

1c. ¿Quién implantó la innovación? ¿Cuándo? ¿Con qué objetivo?

1d. ¿Hay alguna innovación en la que no haya pensado en primer lugar, pero que crea que es particularmente importante en las siguientes áreas?

- Objetos de la innovación: una herramienta específica (ej. un sistema de gestión de contenidos impulsado por la inteligencia artificial).
- Sujetos de la innovación: roles y funciones innovadoras (ej. periodistas *hackers*, periodistas de datos, periodistas/equipos de investigación).
- Procesos de innovación (ej. un algoritmo para mejorar la distribución de noticias personalizadas).
- Redes de innovación (ej. redes para la igualdad de género).
- Mecanismos de transferencia de la innovación (ej. una asociación de medios).
- Cultura de la innovación
- Unidades de innovación: departamentos específicos que se centran en la innovación (ej. laboratorios de medios, periodismo de datos, verificadores, departamentos/redes de investigación, departamentos de medios sociales...).
- Innovación en contenidos: innovación en la narración y los relatos (ej. un reportaje de inmersión, un webdoc con juegos, un reportaje de TV de realidad aumentada, un noticiario de *Snapchat*).
- Innovación en géneros: desarrollo de nuevos géneros y formatos periodísticos (ej. *newsgames*, historias en vivo de *Instagram*, documentales de realidad virtual, cobertura transmedia…).
- Innovación de los modelos empresariales: creación de nuevas fuentes de ingresos, formas innovadoras de comercializar productos y servicios de noticias (ej. emprendimiento, financiado por fundaciones, modelos de afiliación).
- Innovación en la participación del público (ej. creación de agencias fotográficas de noticias generadas por los ciudadanos, el fotoperiodismo colaborativo, las interacciones a través de las redes sociales).

2a: ¿Qué innovación periodística española que fracasó entre 2011 y 2020 considera que está entre las más innovadoras o importantes? (Máx. 3 respuestas). El criterio que define el fracaso en esta investigación es que la innovación ya no exista hoy en día.

2b: ¿Por qué nombró cada innovación fracasada?

- Económicamente beneficiosa para la organización productora
- Económicamente significativo para toda la industria
- Modelo y pionero de toda la industria

- Mejora la calidad periodística
- Disruptiva/radical para la calidad periodística
- Beneficiosa para una sociedad democrática (por ejemplo, formación de opinión)
- Disruptiva para una sociedad democrática
- Extremadamente innovadora desde una perspectiva técnica
- Innovador para la organización (para la distribución, para la producción, para la interacción con las audiencias)
- Otro

3. ¿Podría destacar alguna innovación adoptada en España que ha servido para solucionar problemas asociados a la pandemia del Covid-19?

4. ¿Qué organizaciones periodísticas españolas considera más innovadoras? Por favor, explique brevemente la razón por la que seleccionó cada una de ellas (Hasta 10)

5. ¿A qué otras personas expertas en el mercado español deberíamos preguntar sobre las innovaciones periodísticas de los últimos diez años? (Máx. 5 personas)

Anexo 2. Innovaciones descartadas

Innovación	Total
Analítica	13
Periodismo comunitario	13
Entornos múltiples	12
Estrategia de CMS	11
Product manager	11
Agencia de publicidad	11
Crowdfunding	11
Medio basado en proyectos	11
Desintermediación	11
Periodismo de servicio	11
Nichos temáticos	10
Eventos digitales	9
Crossmedia	9
Negocio basado en B2B	8
Curación de contenidos	7
Navegación continua	7
Realidad aumentada	7
Slow journalism	7
Mejoras web	6
Contenido *Evergreen*	6
Financiación con plataformas	6
Generalización temática	6
Optimización web	6
Transparencia	6
Vídeo explicativo	6
Interfaces de audio	3
Video on demand	3
Afiliación	2
Apps de entretenimiento	1,5
Capacidad de 5G	1
Asociaciones de periodistas	1
Mensajería instantánea	1
Micropagos	1
Responsabilidad social corporativa	1
Gigapan	0,5
Piezas de última hora	0,5

Profile of digital slow journalism audiences in Argentina, Colombia, and Mexico

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Abstract

The aim of this work is to study slow journalism audiences, with a particular interest in Latin America, specifically Argentina, Colombia, and Mexico. Five case studies were carried out, covering *Anfibia* (Argentina), *Arcadia* (Colombia), *Gatopardo* (Mexico), *La silla vacía* (Colombia), and *Letras libres* (Mexico), along with a Delphi study (double round with 27 participants) and a structured questionnaire (of 1,500 people between the ages of 18 and 65 years). The results indicate that 75% of the surveyed population obtain their information from all kinds of digital media, among whom 84% use social media for this purpose. Slow journalism is still mainly unknown to a large fraction (17%) of the population, although once given its definition and some named examples, 40% of those surveyed claimed to have read the slow press at some time. Quality is the main reason for its consumption (62%), followed by searching for specific subjects (46%), especially for young people (65%) and in Colombia (52%). Experts in slow journalism agree that the key to consolidating an audience involves listening to and interacting with its members, together with their active participation in the media.

Keywords

Audience studies; Digital audience; Journalism; Slow journalism; Digital journalism; Digital media; Printed media; Digital press; Slow reader; *Anfibia*; *Arcadia*; *Gatopardo*; *La silla vacía*; *Letras libres*; Latin America.

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1. Introduction

Slow journalism is a journalistic practice that is unhurried, offering its readers context and in-depth analysis of the information provided. It represents an alternative to traditional, rapidly consumed journalism and is in direct opposition to *fake news.* According to **Le-Masurier** (2016), slow journalism provides a critique of fast news through its own processes and methods. Currently, different terms are used to refer to this kind of journalism, including *long-form journalism*, *literary journalism*, *narrative journalism*, and *new journalism*. However, there is no clear differentiation between or acceptance of these concepts (**Giles**; **Roberts**, 2014; **Van-Krieken**, 2019), and certain studies reveal a need to specify a definition to facilitate future empirical research (**Van-Krieken**; **Sanders**, 2021). However, various research studies that have used such terms highlight the similar characteristics and functions of this journalistic genre: directed at society, participative, high quality, in-depth information, independence, narrative style, and providing the time and distance needed for analysis (**Neveu**, 2016, pp. 448-460; **Ball**, 2016; **Belt**; **South**, 2015; **Lassila-Merisalo**, 2014). The connection or similarity among this wide range of concepts is thus a reality that should be considered.

It is also worth pointing out the ongoing academic debate regarding when and where this type of journalism was born. While some authors suggest that the historical roots of *slow journalism* can be found in the New Journalism of the 1960s (**Wolfe**; **Johnson**, 1973), others point out that its origins and roots in Spanish can be found even earlier (in both Spain and Latin America), in the second half of the nineteenth century (**Chillón**, 2014; **Rodríguez-Rodríguez**; **Albalad-Aiguabella**, 2012, pp. 293-294), albeit with different experiences and results (**Palau-Sampio**; **Cuartero-Naranjo**, 2018). Writers contributing to this journalistic practice include Octavio Paz, Tomás Eloy Martínez, Alma Guillermoprieto, Mariahé Pabón, Alberto Salcedo, Miguel Otero, Truman Capote, Gay Talese, Tom Wolfe, and Norman Mailer, among others. However, Gabriel García Márquez and his foundation (created in 1994) played the most important role in the consolidation of this type of journalism, especially in the Latin American countries analyzed herein. Indeed,

> "[i]t is inconceivable to consider the strength of superior journalistic prose without the existence of FNPI (Fundación Gabriel García Márquez para el Nuevo Periodismo Iberoamericano), the UN of old-new Hispanic journalism" (**Rodríguez-Rodríguez**; **Albalad-Aiguabella**, 2012, pp. 295-296).

These writers and journalists practiced their profession in different forms but always with the same end: to tell stories with a more creative and literary language that allowed a description of the scenes, atmosphere, and emotions of the protagonists.

Regarding the geographic region studied here, **Hoyos** (2009) explains that this style developed primarily with the successful Latin American feature article in the period 1960–1980, followed by the interview, before reaching its peak in the modern-day news report. News reports enable different overlapping viewpoints, semantic activity of the reader, a space–time rupture in the narrative, and lexical richness, among other features. Thus, journalists who promote slow journalism in Latin America today draw on the work of that movement, leading to its consideration as a variant (**Puerta**, 2011). There is currently talk of a "new Latin American feature article" as "heir" to the previous one (**Rosique-Cedillo**; **Barranquero-Carretero**, 2015, pp. 454), a rising phenomenon (**Bonano**, 2014) that helps to explain complex stories and that is published in both printed and digital form (**Sierra-Caballero**; **López-Hidalgo**, 2016). Its aim is to promote a formal renovation of the novel (**López-Hidalgo**, 2018).

Colombia and Argentina stand out as two of the territories with the most slow media within Latin America. Some of these are *Gatopardo* (paper and digital), *La silla vacía* (native digital), *Anfibia* (local digital), and *Letras libres* (paper and digital). The following common characteristics can be highlighted in Latin American slow journalism: a digital strategy (due to the high cost of paper publication), an innovative design adapted to consumption on small electronic devices, the participation of independent (freelance) journalists, a synergy with similar slow projects, and stories that are relevant to a minority but active audience.

However, while some have faith in this "segmented offering" that "contributes to audience loyalty" (**Rosique-Cedillo**; **Barranquero-Carretero**, 2015, p. 460), few studies have addressed the opinions of its reader community in Latin America (**Gurrutxaga-Rekondo**; **Álvarez-Berastegi**; **Agirre-Maiora**, 2021; **Agirre-Maiora**; **Murua-Uria**; **Zabalondo-Loidi**, 2020). For example, what do readers demand of them? What is the relationship between the media outlet and its audience? How do they connect with it? Have studies been carried out to define their audiences? Faced with this sparsity of information, it is difficult to determine the current state and future challenges of slow journalism, both in general as well as in Latin America in particular.

1.1. Slow journalism and the digital audience

Slow journalism uses genres that have been abandoned by fast journalism (**Herrscher**, 2012; **Boynton**, 2005; **Greenberg**, 2007), including in-depth or investigative reports, feature articles or essay, and long interviews. The focus is placed on stories and their protagonists in an attempt to reflect the environment, atmosphere, opinions, and sentiments of their protagonists. Such stories invite the reader to pause and reflect, rather than merely providing entertainment. Slow journalism is also considered to represent cultural resistance or a counterhegemonic movement (**Rauch**, 2011; **Peñafiel-Saiz**; **Zabalondo**; **Aiestaran**, 2020). New and interesting ways of practicing slow journalism are now emerging, especially in the digital field (**Jacobsons**; **Marino**; **Gutsche**, 2016). However, the inclusion of multimedia content in such pieces remains weak (**Zabalondo**; **Aiestaran**; **Peñafiel-Saiz**, 2021; **Sabaté**, 2020; **Sabaté-Gauxachs**; **Micó-Sanz**; **Díez-Bosch**, 2019), and slow media companies have not found it easy to consolidate their business models (**Dowling**, 2016; **Agirre-Maiora**; **Murua-Uria**; **Zabalondo-Loidi**, 2020).

Consumer habits have changed drastically during the last decade, and it has become increasingly more difficult to attract and retain audience attention (**Siapera**, 2015), especially among the younger population. At the same time, (traditional and digital) journalism has been submerged in a general crisis for over a decade (International Federation of Journalists, 2020), resulting in a journalistic product with reduced quality (**Bauer** *et al.*, 2013).

Faced with this situation, one can ask whether we really need more media outlets, or more journalistic quality? According to **Ramírez-De-la-Piscina** *et al.* (2015),

> "quality journalism must be the main concern, the guide and the ultimate goal" of the profession" (p. 294).

In this sense, slow media outlets play a fundamental role, since they offer high-quality journalism, avoiding fast or headline reading to promote pause, explanation, reflection, the construction of pragmatic audiences, and action aimed at change or the eradication of social inequality (**Barranquero-Carretero**, 2013; **Benaissa-Pedriza**, 2017). However, slow journalism practice requires time, as well as higher production costs to investigate and offer alternative information. It is only recently that the perspective and role of the audience in the future of digital journalism has started to be taken seriously, along with

> "the implications of their decisions" in the creation of "democratic citizens" (**Schrøder**, 2019, p. 7).

One research gap in the academic field is to investigate whether the audience shares the perception that digital slow journalism functions as an alternative to headline or fast journalism, offers high-quality information, and is adapted to the demands and expectations of the digital generation (**Drok**; **Hermans**, 2015). According to the results, the young audience believes that news should be

> "available anytime, anywhere and free of charge" (p. 5).

Therefore, the researchers concluded that slow readers are at the same time fast, and it is not known whether their interest in slow journalism is related to a specific subject. It was also discovered that a considerable proportion of the analyzed population would preferably choose a type of journalism that is

> "more investigative, inclusive, co-operative and constructive" (**Drok**; **Hermans**, 2015, p. 5).

In this research, the (physical and digital) audience is first considered to be a fundamental source of information about journalistic practice in general (**Benton**, 2020) and slow journalism in particular, in order to determine their needs and propose solutions that improve and guarantee a sustainable future for digital slow journalism. Secondly, considering the lack of studies about the slow audience in Latin America (**Meléndez-Yúdico**, 2016; **Martínez**; **Zuluaga**, 2016; **Zuluaga-Trujillo**; **Gómez-Montero**, 2019) and considering the trajectory and success of narrative journalism in this region (**Rosique-Cedillo**; **Barranquero-Carretero**, 2015; **Gurrutxaga-Rekondo**; **Álvarez-Berastegi**; **Agirre-Maiora**, 2021), this work focuses on three countries: Argentina, Colombia, and Mexico. More precisely, it aims to answer the following research questions:

> RQ1: What is the target audience of the analyzed slow media, and what perception do these media entities have of their audience? What strategies have they developed to consolidate their reader community?
>
> RQ2: How do experts define the reader of slow journalism?
>
> RQ3: What are the general news-reading habits and routines of the analyzed population? What level of knowledge does the analyzed population have of slow journalism, and what is their perception of it?

2. Methodology

The data collection techniques used were case studies (in-depth interviews and nonparticipant direct observation), a Delphi study, and a structured questionnaire. This three-pronged methodology enabled greater control over quality during the research process.

It is worth highlighting that, in a short period of time, various studies into this journalistic current have been carried out. Considering that the most important ability in state-of-the-art communication research is the development of methodological skills independent of the research topic, one should consider both completed works that have appeared as well as those currently emerging when attempting to construct theories and practices in the area of slow journalism from different research viewpoints.

Albalad-Aiguabella (2015, p. 11) analyzed the case of *longform.org* and is

> "a representative example of how the online news media goes beyond the sensationalist headline and a few paragraphs."

This work was based on a mixed methodology, applying website content analysis to obtain data, as well as an in-depth interview with its founder. The conclusions state that narrative journalism in English is currently enjoying a moment of splendor on the digital continent, with an audience eager to consume well-told stories, that the digital format is no obstacle to reading at length, and that the use of technology as a reading medium is increasing relentlessly.

On the other hand, **Barranquero** and **Jaurrieta** (2016) carried out a case study of *Jot Down*, a Spanish startup magazine, based on interviews with its directors and online interviews with its contributors. Their conclusions address the problems and sustainability of this business model and its financing. Barranquero and Jaurrieta state that, in less than 5 years, Spanish journalism has managed to put into practice a new way of producing information and that

> "in specialising in specific topic areas, each publication has been able to provide a more meticulous and committed coverage of current problems and, in the end, this shows the viability of the slow journalism philosophy" (2016, p. 13).

In work about some experiences of slow journalism in Latin America, **Rosique** and **Barranquero** (2015) use, among other techniques, direct observations and in-depth interviews to conclude that there is not a single, closed, and definitive model of slow journalism initiatives in the Spanish or Latin American digital field.

Benaissa-Pedriza (2017), author of the essay entitled "Slow journalism in the infoxication era," compiles the results of exploratory research based on qualitative and direct observation methodologies. The subjective reflection of that study considers informed and documented opinions on the basis of an unstructured case study, the results of scientific research carried out by experts, and the reading of journalistic articles that reflect the standpoints of information professionals about the subject. That case study was carried out in three phases, including the selection of cases relevant to the research topic, their analysis, and a subsequent interpretation/discussion. The sources consulted were primary in nature, comprising a selective sample of information published in the media during the months prior to the writing of the essay. The sources included articles, news items, reports, and interviews, published both digitally and in print. The sample selection criteria were based on the relevance of the subject matter, topical media, and their informative function.

The work entitled "*El periodismo slow digital de Jot Down* y *Gatopardo*" ["The digital slow journalism of *Jot Down* and *Gatopardo*"] (**Sabaté-Gauxachs**; **Micó-Sanz**; **Díez-Bosch**, 2018) also studies content, techniques, and formats, and examines how journalism centered in essence on print is also enjoying a consolidated presence and audience in the digital world. The work aims to investigate the situation and recognition of journalists in this kind of media, as well as their routines, processes, and working conditions, using a methodology based on in-depth interviews, content analysis, nonparticipative observation, and a review of relevant literature. The main conclusions show that, given the current situation facing journalism and the media, prioritizing quality over immediacy and hybridizing tradition with innovation could be key to guaranteeing its future.

Palau-Sampio, in one of her research works in the area of Spanish and Latin American narrative journalism (**Palau-Sampio**; **Cuartero-Naranjo**, 2018), states that there has been an important growth of narrative journalism in Latin America, in light of the boom in Latin American feature articles, and to a lesser extent in the Spanish ambit, with a particular impulse being provided by specialized publishers. That study draws on in-depth interviews with prominent representatives from narrative journalism in Spain, Argentina, and Chile, with the aim of discovering the contrasting points of view, subject matter, influences, and publications among Spanish and Latin American journalists.

2.1. Case studies

A bibliographical review of the *Scopus* database guided the research team in the initial selection of the news media analyzed herein, applying the key words "*slow journalism*", "*periodismo reposado*," "*periodismo narrativo*," "*periodismo de investigación*," "*periodismo de lenta cocción*" or "*slow media*" in the *Google* platform. Firstly, after reading the extant relevant literature, a preselection was carried out. Subsequently, from among the 30 magazines most often mentioned in the articles, the top 10 digital narrative news media in Spanish were selected using the following criteria: up-to-date content, presence of context in the published texts (about facts and/or protagonists), presence of narrative texts, plurality of genres used (features, interviews, reports, profiles, critiques, essays, opinions, etc.), level of reference and/or influence of the website, whether in its own country or in terms of the subject matter (confirmed audience, followers on social media, etc.), and lastly, the quality of the web design. To select the media entities, each of these criteria was given a score between 0 and 5. Finally, the research team judged that the sample reflected a broad balance in terms of both geography and subject matter. The news media from the Latin American geographical area selected in this way were *Letras libres* (Mexico), *Arcadia* (Colombia*),* *Anfibia* (Argentina), *La silla vacía* (Colombia), and *Gatopardo* (Mexico).

The strategy applied in the case studies was to carry out a heuristic and empirical investigation using multiple variables, sources of knowledge, and information. As pointed out by **Yin** (1992), the aim of the case study is to investigate a specific phenomenon within its real-life

> The analysed publications arise from different circumstances, but are all motivated by the search for news quality, by their innovative role in the way of telling stories and by confronting the profound crisis in journalism affecting both the media and the work situation of many journalists

context. Thus, within the framework of the five case studies, 12 in-depth interviews were carried out with those responsible for these slow media, both journalistically and economically, along with those in charge of new technology (social media). The people interviewed for each of the media entities were: Sara Malagón (General Editor of the magazine), Camilo Jiménez (magazine Director and Head of Finance), and Felipe Sánchez (Digital Editor, Technological and Social Media Director) from *Arcadia*; Juanita León (Director of the magazine and Head of Content) and Pablo Isaza (magazine Sales Coordinator and Head of Finance) from *La silla vacía*; Cristian Alarcón (Journalistic Director and Head of Content), Ana Sol García Dinerstein (Executive Producer and Head of Finance), and Tomás Pérez Vizzón (Digital Editor, Technological and Social Media Director) from *Anfibia*; Eduardo Huchin (magazine Editor), Leticia Gaona (Administrative Director and Head of Finance), and Pablo Majluf (Journalist, Technological and Social Media Director) from *Letras libres*; and Felipe Restrepo (magazine Director) from *Gatopardo*.

> Narrative journalism is mainly valued because it offers critique, reflection, and capacity for analysis

All interviews were carried out face-to-face and recorded for later analysis. Furthermore, the investigation was completed with an analysis of the content of the digital magazines and nonparticipant observation of each of the selected media. It is worth highlighting that all the data obtained during 2018 were verified and updated in the autumn of 2020.

2.2. Delphi study

The Delphi panel is prospective in nature and is used to compile the consensual opinion of a group of experts about a specific subject. It is useful for research diagnostics, forecasts, guiding future activities or research, or generating agreement about emerging topics (**Linstone**; **Turoff**, 2002). Twenty-five international professionals and academics who were experts in slow journalism (from Australia, Europe, North America, and South America) participated in the Delphi panel. Ten qualitative questions were drawn up, focused on answering the research questions of the project during two consecutive rounds. Data collection from the first round began in May 2018 via the *Survey Monkey* platform. The results were summarized and compiled into a report that formed the basis of the questions in the second round. The second round validated the findings of the first round, then the opinions of the experts were organized into a measurable format to determine the consensus achieved. Therefore, the second questionnaire (completed in June 2019) included the same ten open questions as the first, but this time each was accompanied by various key results, together with a Likert scale that assessed the degree of consensus among the experts. Before answering the second and final questionnaire, the participants were told to read the report from the first round. The final panel of experts (n = 25) was made up of 48% women and 52% men in the following age groups: 30–39 years (35.71%), 40–49 years (39.28%), and 50 years or above (25%).

2.3. Questionnaires

The questionnaires used in this study combined a descriptive and analytical focus. The questionnaire was designed to gather quantitative and qualitative data about the readers of printed and slow journalism in Argentina, Colombia, and Mexico. The surveys were carried out in 2019 by a company specialized in audience measurement, contracted for this purpose. Firstly, a list of preestablished questions was drawn up to be put to the research subjects via the Internet. Secondly, during the validation phase, this draft was shaped and completed with the guidance of experienced professionals from the company in charge of disseminating the instrument and compiling the data. The distribution of the questionnaires and the data compilation were carried out in Spanish.

The confidence interval was 95%, and the error margin for computation of the answers was 2.53%. The questionnaire was completed anonymously by 1,500 subjects between the ages of 18 and 65 years, resident in Argentina (N = 500), Colombia (N = 500), or Mexico (N = 500), with access to the Internet. The final sample was made up of 48% males, 47% females, and 5% who considered themselves nonbinary, distributed among the following age groups: 18–34 years (47%), 35–49 years (26%), and 50–65 years (27%). According to the data published by the *Instituto Nacional de Estadística y Censos* (*Indec*, National Institute of Statistics and Census) in Argentina (2019), the *Censo Nacional de Población y Vivienda* (National Census of Population and Housing) in Colombia, and the *Instituto Nacional de Estadística y Geografía* (*Inegi*, National Institute of Statistics and Geography) in Mexico, the total universe of the selected population (subjects between the ages of 18 and 65 years with Internet access) comprises 107,898,786 prospects from the three countries combined. The 1,500 completed questionnaires thus represent an acceptable number for an analysis of differences between countries. Given that it is not possible to study the whole population, the obtained data are proportionally supported by a sample in accordance with the variables (age, gender, type of residential area, etc.) of the population they come from. Therefore, the generalization of the results of this study should be understood as a descriptive process that allows us to compare different variables and formulate new hypotheses (**Rothman** *et al.*, 2013).

The questionnaire was made up of 40 semistructured questions, of which 3 were open, 9 were multiple choice (including 2 filter questions), and 28 were closed. The questionnaire was structured into four blocks:

(1) General news-reading habits and routines;

(2) Perception, knowledge, and habits of readers of slow journalism in Argentina, Colombia, and Mexico;

(3) General questions;

(4) Sociodemographic data.

3. Results

3.1. Case studies

During the last two decades, mainly in Latin America and Europe, there has been an exploration of a narrative journalism that uses literary techniques, has a long format and creative style, is new, and is of good quality. This has led to interest in discovering the perspective of the audience of certain reference magazines that incorporate such slow journalism, viz. *Arcadia* (Colombia), *La silla vacía* (Colombia), *Gatopardo* (Mexico), *Letras libres* (Mexico), and *Anfibia* (Argentina), in their digital versions.

Arcadia was a different, adventurous cultural magazine whose aim was to reach a varied, young audience through the slow philosophy, taking advantage of the resources of the major communication group *Semana* under whose auspices it was created. In the words of Camilo Jiménez, director of the magazine from 2018 to 2020,

> "the magazine covers culture in its widest, freshest and most pioneering with a quality design."

Arcadia stopped publishing in February 2020.

La silla vacía is an informative and interactive media for people interested in Colombian current affairs. It came into being in 2009 as an initiative of its current director and main shareholder, Juanita León. She says that

> "the aim of *La silla vacía* is not to report the news but to look at what is behind the news, and it is becoming a laboratory of journalism for the future, which will allow it to continue defending its independence as a mark of identity."

La silla vacía is a digital-native media whose content can be accessed free of charge.

The magazine *Gatopardo* began in 2000 in Colombia within the media group *Publicaciones Semana*. It was set up as a magazine dedicated mainly to narrative journalism. According to Felipe Restrepo, director of the magazine between 2014 and 2019,

> "the editors became aware of the large number of Latin American writers who were rethinking their profession of telling stories and narrating regional reality through their texts. The magazine also wanted to recuperate the tradition of the North American weeklies in the style of *Vanity Fair* and *New Yorker.*"

It is a product with a luxurious image and design. It usually offers detailed, time-rich investigative reports about diverse subjects, particularly politics or the film industry. Its business model is based on advertising. In an interview carried out in July 2018, its director, Felipe Restrepo, indicated that

> "This magazine grew considerably in Colombia and so it soon separated from the group *Semana* and has been independent since then; that is, it doesn't belong to a large media group with political or economic interests."

It is currently produced in Mexico City.

Letras libres is a monthly magazine created in 1999. It has an international distribution and is currently undergoing a renovation without losing sight of long-format journalism. It is the successor of the magazine *Vuelta*, founded by Octavio Paz in 1976, with which prestigious Latin American writers from the 1970s and 1980s collaborated. *Letras libres* produces two editions: one in Mexico and another in Spain. The magazine's editor, Eduardo Huchín, argues that

> "[i]t still has the same editorial line as in the beginning, but seeks to capture a new generation of readers linked to digital platforms and multimedia."

Anfibia (Argentina) is a digital magazine that cultivates high-quality narrative journalism. On its website, the magazine defines itself as a media offering feature articles, essays, and nonfiction stories with the rigor of investigative journalism and literary tools. Cristian Alarcón, Journalistic Director and Head of Content at the magazine, explains that

> "[i]t has always stood out for the special attention paid to its texts, becoming a reference of the progressive vanguard in Argentina, being especially popular among young women in university fields."

All of its content is free of charge, and the most prominent genres are feature articles and essays.

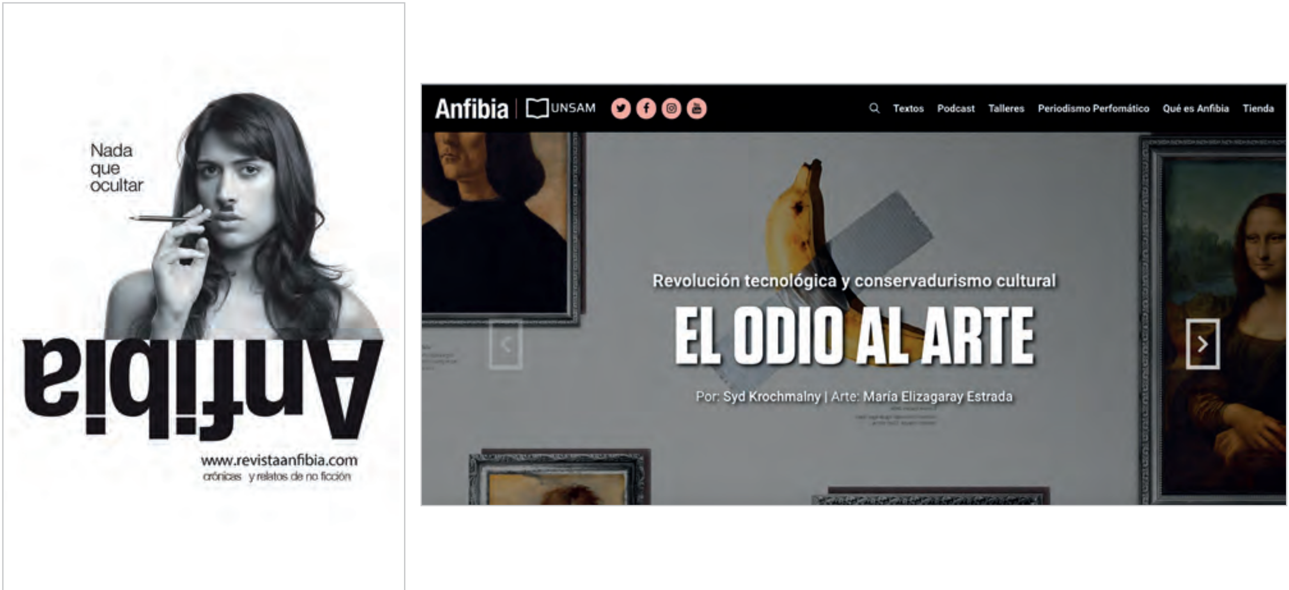
3.2. Profiling slow audiences

The following results were obtained from the qualitative analysis of the interviews carried out by the research team in 2018 and updated in 2021.

Anfibia (Argentina)

The online version of *Anfibia* is very visual and catches the reader's attention right from the start. The genre that is currently most demanded by its audience is the narrative essay. Two features of central importance to the *Anfibia* project are journalism workshops and performance journalism (investigative journalism that takes the form of street performance, straddling the fields of journalism and art, story, and action). The predominant audience of *Anfibia* is female, young, and at university. According to data

> The Latin American audience of digital slow media is unaware of the term slow journalism. Specifically, less than a quarter of those surveyed had heard of it



Anfibia
https://www.revistaanfibia.com

provided by the magazine itself and endorsed by *Google Analytics*, 56.71% are women and 69.61% of the audience is in the 18–44-year age group. The digital audience has grown, albeit with some fluctuations during recent years. In 2019, the numbers fell to 165,435, while in 2020 the Covid-19 pandemic provoked a spectacular increase, as also seen for the vast majority of digital news media around the world, with 265,855 individual users per month. *Anfibia* is considered to be an elite magazine aimed at the political, social, economic, and academic field.

Arcadia (Colombia)

In a search for its own identity, the digital edition of *Arcadia* seeks to take advantage of tools that allow audience interaction. Its digital versions furnish data about how each content item works and the response elicited among readers. In addition to the direct interaction route, another channel to understand the audience is the information provided by social media. Information about audience profiles that comes from social media membership enables employees to better understand the age, tastes, and even ideological profiles of the audience. A priori, this enables the design of content that is more appropriate for such profiles.

In 2018, *Arcadia*'s income from subscriptions was only 10% of the total. A key decision to increase subscriptions and reduce its dependence on advertising was to establish a paywall and close the website that had previously been free of charge. In 2020, each news piece offered only one paragraph free of charge, with three or four complete content items visible.

Arcadia
https://www.semana.com/cultura

Gatopardo
https://gatopardo.com

***La silla vacía* (Colombia)**

This magazine has undergone something of a transformation since its beginnings. Originally a project offering interactive games related to politics, it was soon realized that its audience wanted in-depth, investigative journalism, which led to a more sober design of the magazine, while its narrative evolved towards information designed for mobile devices. In fact, 60% of its audience reads the content on a smartphone. It is a highly visual magazine, offering graphical accounts based on data and with a large podcast presence, which is of great interest to young people. This media outlet opts for subjects related to the consequences of the peace process in Colombia, as well as gender and environmental issues.

La silla vacía has also incorporated a series of regional editions, a political decision in line with the current historical moment in Colombia. The spirit of the magazine includes the aim of reaching a wider audience throughout the country beyond the capital Bogota, where 90% of its readers were originally located. This figure has now reached 50%, with the rest being distributed throughout different regions. Another of the strengths highlighted by its director is the concept of "community" that this media has generated, which was a feature since its creation.

***Gatopardo* (Mexico)**

Gatopardo was not created with a specific audience in mind. Rather, the stories are constructed and published for a wide audience, including both experts and those who do not know anything about the subject. Its audience profile is a well-traveled, educated person with experience of the most exclusive pleasures and a plural, original, and independent vision. It is worth noting that 65% of its readers are men, which may explain its masculine design. The average age of its readers is 35 years. It is situated among the classical luxury and style magazines that are irreverent and intellectual. Its audience tends to be within the high or upper-middle socioeconomic range, for whom sophisticated and personalized experiences are designed (*Similarweb*, 2020).

The digital version of *Gatopardo* received over 198,000 visits in the second half of 2020, half of which were from Mexico, 12% from Spain, and the rest from other Latin American countries. The remaining 15% came from social media (*Similarweb*, 2020).

***Letras libres* (Mexico)**

According to a survey carried out in 2020 among the readers of *Letras libres*, a large fraction (46%) fall within the 46–54-year age range, followed by 22% between the ages of 35 and 44 years, and 20% from 25 to 34 years. In terms of formal education, 59% of the readers of *Letras libres* claim to have a university degree, while 36% hold a postgraduate qualification. They are readers who are interested in the subjects covered by the magazine and are linked to the following sectors of the population: news and the media, literature, and education. In November 2020, according to *Similarweb*, the website received 770,000 visits, with 21% from Mexico, 10.9% from Spain, and 9.84% from Colombia.

Letras libres
https://letraslibres.com

3.3. Key results of the Delphi study on slow journalism

To provide a clearer and more global picture, the Delphi technique was applied to discover the classic profile of the reader of this kind of content and news media. Academic experts and information professionals were asked whether they thought there were significant differences between these readers and those of traditional media, whether printed or audiovisual, and what level of importance they gave to interactivity between the readers and producers of this type of digital magazine.

The results obtained do not reveal a well-defined profile to categorize readers of slow journalism. However, they do agree that it is a minority audience with a particular capacity to establish itself as a user community. However, some experts consider that readers of narrative journalism differ from those of standard journalism, since their profile reflects a high level of formal education, they are more committed to social issues, and moreover they are much more demanding in terms of content than readers of traditional media.

One can thus state that such readers are more interested in quality than in fast consumption of news, that is, a reader who is more cultured, with greater sensitivity and curiosity, along with an active cultural conscience, one who has time to read and analyze the nuances and depth of the stories.

Regarding interaction, maintaining feedback with the reader is very important for these news media. It helps to establish a conversation with the audience and is useful for creating a community, improving results, and keeping projects open to the public. The higher the intellectual level of the reader, the greater the interest in this kind of journalism, given that

> "it isn't a journalism for the majority" (participant 16).

Other participants refer to a plurality of audience rather than one type of reader, since

> "a large part of the readership comes from the traditional media with interest in a particular subject, a greater depth or a style" (participant 3).

Similarly, some commented that, in general, we are faced with

> "an audience that is not up to a journalism of more than 5,000 words or two minutes on the same page" (participant 22).

Some of the surveyed experts underlined the concept of "community":

> "Looking after the reader community is key to survival" (participant 25).

Others highlighted that media that opt for slow journalism must capitalize on this implication

> "in order to maintain a constant communication with the audience –either in person or electronically– that goes back to ideas, input and contributions that help to improve the publication" (participant 10).

3.4. Digital press reading habits in Argentina, Colombia, and Mexico

3.4.1. Use and consumption of the media in general

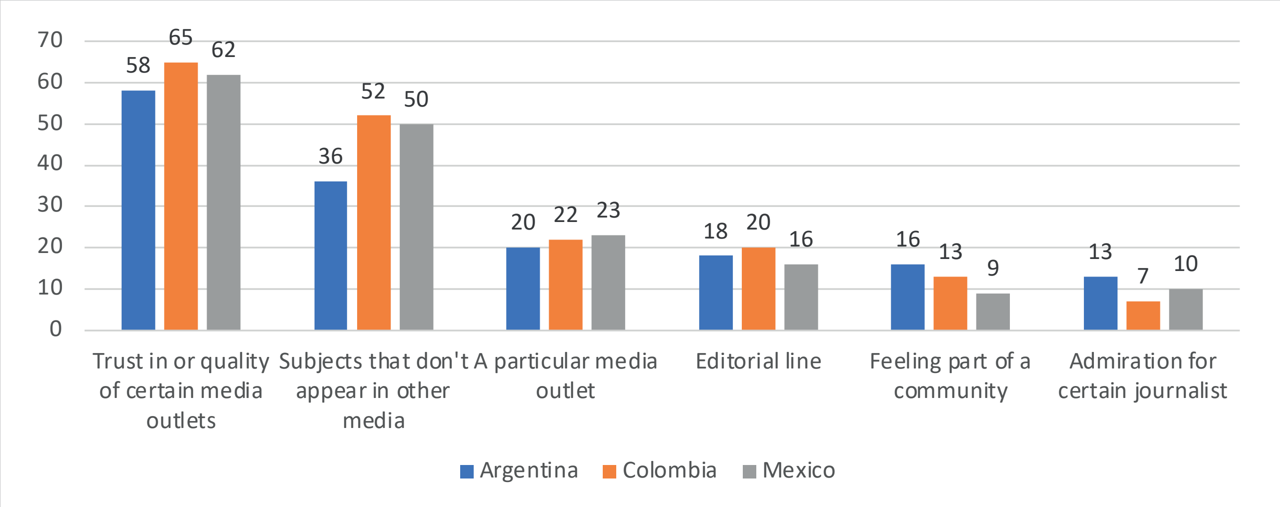
The study analyzed the perception of those surveyed concerning the habits of readers of the digital press in Latin America. Some 84% of the surveyed population in Argentina, Colombia, and Mexico habitually use social media to obtain information about current events. To a slightly lesser extent, they access the digital press (75%) and television (72%) to stay informed. The radio is consumed habitually as a news source by almost half of those surveyed (49%), and the printed press by less than a quarter of the studied population (23%).

Significant differences can be seen by gender, age, type of residential area, and level of education. The digital press is the most important information medium for 38% of men, while social media is the priority for 45% of women. The 18–34-year age group obtains information mainly via social media (57%, with as many as 93% in this age range using it habitually), while a minority of the 50–65-year age range prioritize this medium. Consumption of radio and the printed press drops among the youngest age group. In large cities with over a million inhabitants, more information is consumed in general and particularly via the press (both printed and digital) and the radio than in smaller population centers. The digital press is significantly more of a priority for people with postgraduate university qualifications. Television stands out as a priority medium for 38% of those with only a compulsory education level, in a larger proportion than for the rest of the population, followed by social media (30%), the digital press (24%), radio (7%), and the printed press (2%).

Most of those who obtain their information from the digital press do so because it is easy, comfortable, and quick to access (50%).

Among those who prioritize the printed press, almost a third do so out of habit. Radio is prioritized because it allows other activities to be carried out at the same time (29%), or out of habit (27%).

Graph 1 shows that trust in, or the quality of, the media outlet is the main reason for its consumption (62%); this occurs to a greater extent among young people (65%). Secondly, consumers seek specific subjects (46%), which happens to a greater degree in Colombia (52%) and Mexico (50%), and among those under the age of 35 years (50%).



Graph 1. What do you look for in the media? (multiple answers) (percentages)

Considering that the number of people who have various subscriptions is much lower than those who have some kind of subscription (yes, 28%; no, 72%), we can see that the proportion of people who have had or maintain a subscription to a printed media is 39%, versus 28% for digital media. Colombia stands out in both cases, followed by Mexico (28%) and Argentina (23%), as having the greatest number of subscribers and in the 50–65-year age range (32%). On the other hand, subscriptions to both the print and digital press are related to having a higher level of formal education, living in a larger population center, and being active in the job market.

3.4.2. Perception, knowledge, and consumer habits of readers of the slow press

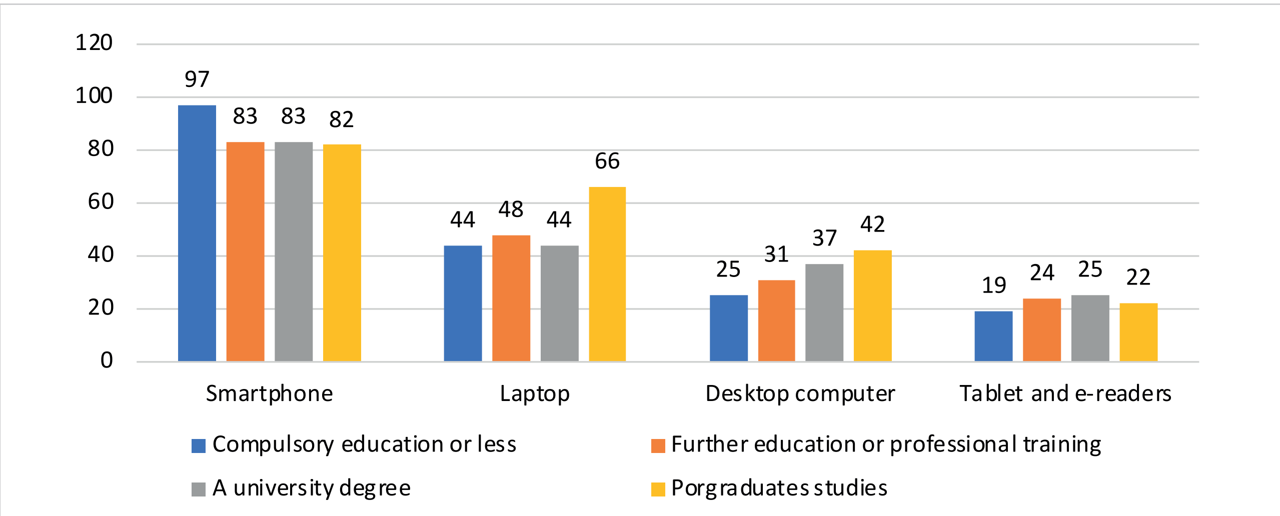
Just 17% of those surveyed had heard of the terms "narrative journalism," "unhurried journalism," or "slow journalism," with a higher probability of having heard of it in Colombia and in the 18–34-year age group.

After being informed of the definition and provided with some examples of brand names, some 40% of those surveyed claim to have read the slow press at some time. This proportion was significantly higher in Colombia, among people with a university degree or postgraduate qualifications, the active population, and those living in large cities with a population of over a million.

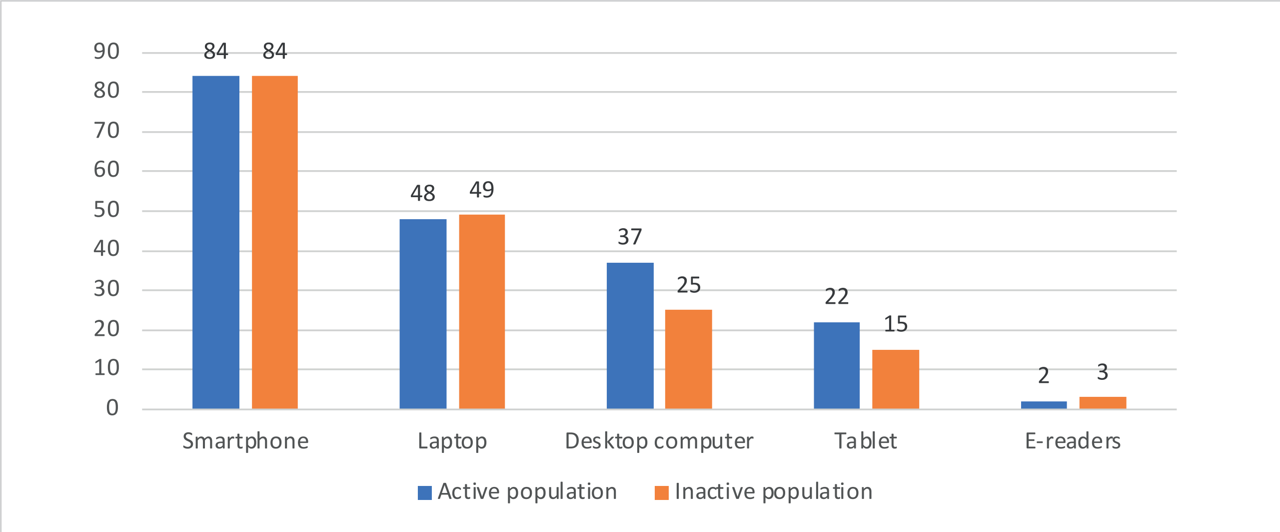
Among those who have read the digital slow press (N = 596), the brands consumed varied by country of residence. The most widely read titles were *La silla vacía* (66%), *Soho* (52%), *Gatopardo* (40%), and *Malpensante* (43%) in Colombia; *Orsai* (31%), *Anfibia* (25%), and *Etiqueta negra* (25%) in Argentina; and *Gatopardo* (38%), *La silla vacía* (31%), and *Contexto* (25%) in Mexico. Other names came up in the study and are included in Table 1.

Table 1. Other slow media read by the surveyed participants (in order of number of times mentioned)

Verdad abierta	*Revista crítica*	*Universo centro*
Animal político	*Tiempo*	*Vice*
Brozo	*Socompa*	*Gonzalo Oliveros*
Cosecha roja	*Proceso*	*Ledudette*
El asombrario	*El tiempo*	*Le monde diplomatique*
El pasquín	*Informe. Digital*	*La vaca*
Malpesante	*La pulla*	*Las2orillas*
Milenio	*La garganta poderosa*	*Latfem*
Oreja roja	*La silla rota*	



Graph 2. Devices used by people who read the digital slow press. Multiple answers possible. By qualification level and activity (N = 547) (percentages)



Graph 3. Devices used by the active and inactive population (percentages)

Over half of the people who read the slow press did so at least once a week (52%). A slight majority (53%) spent between 15 and 30 minutes on the slow press each time. Some 42% read it both during the week and at weekends, while 30% did so only at weekends. Most consumers of slow journalism read it in their usual residence (81%), while the younger population used public spaces with free WiFi to a greater extent. As many as 92% used a digital device, mainly a smartphone with data access (84%). The use of this type of device to read digital slow media was proportionally higher among the youngest members of the surveyed groups (92%). A negative relationship was found between age and mobile phone use for reading the slow press. The main medium for accessing this kind of press is social media (73%). This percentage was significantly higher among the younger population (77%). These results can be complemented by the information shown in Graphs 2 and 3.

The majority of consumers of the slow press seek information about politics (57%), culture (54%), and science and technology (51%). Among those with postgraduate university qualifications (74%) and in Colombia (58%), opinions are sought, whereas young people also look for subjects relating to society (50%). More men than women look for information about politics, science and technology, the economy, and sport.

Slow journalism is mainly valued because it offers critical opinion (62%), a capacity for analysis (53%), and a thoughtful attitude (52%). The preferred genres are analysis (31%) and feature articles (25%). In Colombia, feature articles stand out, being preferred by 34%. Some 16% of those who consume slow journalism subscribed to a media outlet of this kind. This proportion is significantly higher among young people (20%). Slow journalism is highly valued among its consumers (4 out of 5). Both its quality and future possibilities are valued equally (3.9), while its quality gets a slightly lower score compared with other, hegemonic media (3.5).

The majority of slow press consumers seek information about politics (57%), culture (54%), and science and technology (51%)

4. Conclusions

RQ1

The five magazines analyzed herein have created a space for reflection and debate in their countries, with an international vision, and seek strategies that strengthen their influence and social audience. They are currently working to attract a younger audience, in some cases aiming at a specific sector, as in the case of *Arcadia*, while in others, such as *Gatopardo* and *Letras libres*, the target is a varied and wide audience that is looking for plural and diverse subjects and content.

To achieve this, they take full advantage of tools that allow them to interact with their audience. The main one is the digital version of the media, since these editions provide information about the functioning of each content item and the responses elicited, including the type of information most and least demanded, the format in which it is consumed, reading times, the route used by users to access the pieces, the geographical origin of the readers, etc. This is followed by social media, particularly to understand the reader profile (age, education, ideology, hobbies, etc.). All this enables the analyzed slow media to design their content more precisely and accurately.

The analyzed media are aware that their audience is, in general, a cultured community, with higher education qualifications, an open-minded and independent viewpoint, aged between 35 and 46 years, with the majority living in large towns or cities. Even so, the slow media in this study have a commitment to a wide audience, notwithstanding whether they are experts in a particular subject.

Editorial changes have also been linked to changes in their business models. Content aimed at a younger, more diverse audience goes hand in hand with a search for new niches in the advertising market, looking to build new, fresher, younger projects that are long-lasting, yet always within the framework of the slow philosophy. According to what can be gleaned from the results, the challenge facing these media lies in consolidating a long-term audience, a difficult task in these times of fickle, unfaithful consumerism, an aspect that merits further study.

> The proportion of people who have had or maintain a subscription to a printed media is 39% against 28% for a digital media. Colombia stands out in both cases, followed by Mexico (28%) and Argentina (23%) as having the greatest number of subscribers and in the 50-65 age bracket (32%)

RQ2

In terms of what the experts think about slow media, this kind of journalism is interesting both for a global audience and for others grouped into user communities. The experts agree that slow audiences are more familiar with new technology and maintain an interest in subjects outside the media agenda. However, some experts also warn that this is a minority, niche audience. In this sense, the experts in slow journalism agree that the key to audience consolidation lies in listening to and interacting with readers, along with active audience participation in the media, i.e., taking it into account and taking it seriously. A reciprocal influence between the two actors (emitter and receiver) takes place when (1) the audience feels that they play an active role in the consumption of information (via interactive 3D data graphics, etc.), and (2) the media perceives this. A close relationship (with feedback) between the emitter and consumer of this kind of journalism is thus considered to be fundamental. Slow media must sensitize, raise awareness, and arouse curiosity among their readers, which are essential attributes to achieve a solid product.

RQ3

Regarding news-reading habits and routines, the current results reveal that a large majority of the analyzed population usually turns to social media to find out about current affairs, above all the young population. Furthermore, as also found in various other recent studies, this information is accessed via a digital medium, while the printed media hardly feature for readers in this age range. The most relevant reasons given by those surveyed for using digital media is comfort, along with easy and quick access. In general, this audience looks for specific subjects; i.e., they do not use the digital press without a prior fixed idea. Readers want to expand their knowledge about a specific issue. Therefore, within the analyzed population, it is surprising that the proportion of people who have had or maintain a subscription to the printed media is higher than for the digital media. From this result, one can deduce that the audience still sees digital information as a product that is free of charge, as though its production did not entail a human and economic effort. However, what is not surprising is that all the subscriptions are related to a highly educated audience that is active in the labor market. Therefore, slow media should take this factor into account if it wants to free itself of, or depend less on, private funding.

Unfortunately, the Latin American audience of digital slow media is unaware of the term "slow journalism." Indeed, less than a quarter of those surveyed had heard of it. In this sense, it is worth pointing out that, when we talk about the success of slow journalism or the importance of its social base, we need to qualify this, since this ignorance reflects a lack of pedagogy by the slow media. From an academic viewpoint, the results of this study also reveal a lack of specific research into the audiences of slow journalism, something that would enable this kind of journalism to establish its own seal of identity within its own audience and others.

Finally, contrary to its philosophy, the time that those surveyed spent reading slow content is between 15 and 30 minutes. These data support the coexistence of two types of audience in the same niche, further complicating the task of consolidating a project with this audience.

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6. Annex

Slow journalism study questionnaire

PRESS READING HABITS

Q1. Which news media do you normally use to get informed about current affairs? (Multiple answers possible).

Digital press	1
Printed press	2
Radio	3
TV	4
Social media	5
Other/s, Which? ________	6

Q2. From the previously selected media, which has priority? (Show only the answers from Q1 and if there is more than 1 answer)

Digital press	1
Printed press	2
Radio	3
TV	4
Social media	5
Other/s	6

Q3. Why is this media your priority?

____

Q4. How often do you read the printed press?

Q5. How often do you read the digital press?

	Q4	Q5
Every/Almost every day	1	1
3-5 days a week	2	2
1-2 days a week	3	3
1-3 days a month	4	4
Less than once a month	5	5
Almost never/Never	6	6

Q6. What do you look for in the news media you usually read? (Multiple answers possible) ROTATE

A specific media	1
Trust in or quality of certain media	2
Specific subjects that don't appear in other media	3
Feeling part of a community	4
Admiration for the journalists who work there	5
Editorial line	6
Others, Which? ________	7

Q7A. Do you have or have you ever had a subscription to a digital media?

Yes	1
No	2

Q7B. Do you have or have you ever had a subscription to any printed media?

Yes	1
No	2

Q8. Have you heard of narrative/slow journalism?

Yes	1
No	2

NARRATIVE/SLOW JOURNALISM

Narrative or slow journalism refers to a kind of journalism that is disinterested in immediacy and instead produces texts that aid reflection and analysis; they can sometimes use literary figures, but they are not fictional texts, and they offer rigorous, quality information. Such publications are: Frontera D, Jot Down, Orsai, La Marea, Yorokobu, 5W, Contexto, Panenka, Periodista de a pie, Anfibia, Puercoespín, Gatopardo, Malpensante, La Silla Vacía, Coroto, Etiqueta Negra or other publications of a similar style.

Q9. Have you ever read the narrative press?

Yes	1	
No	2	**Go to Q26**

Q10. Have you ever read any of the following narrative press brands? (Rotate answers) (Multiple answers possible).

Frontera D	1
Jot Down	2
La Marea	3
Yorokobu	4
5W	5
Contexto	6
Panenka	7
Periodista de a pie	8
Orsai	9
Anfibia	10
Puercoespín	11
Gatopardo	12
Malpensante	13
Soho	14
La Silla Vacía	15
Etiqueta Negra	16
Coroto	17
Other/s, Which? ________	18

Q11. In what medium do you usually read the slow press?

Digital	1
Paper	2
Both	3

Q12. How often do you read the slow press?

Every/almost every day	1
3-5 days a week	2
1-2 days a week	3
1-3 days a month	4
Less than once a month	5
Almost never/Never	6

Q13. Each time you read an example of the slow press, how much time do you spend on it?

Less than 5 minutes	1
Between 15 and 30 minutes	2
Between 31 and 60 minutes	3
Between 1 and 2 hours	4
Over 2 hours	5

Q14. When do you mainly read slow journalism?

During the week	1
At weekends	2
Indifferently	3

Q15. From where do you usually access this slow journalism? (Multiple answers possible)

Usual residence	1
Workplace	2
A place with free WiFi	3
Libraries	4
Public transport	5
Other/s, Which? ______	6

(If you chose answers 1 or 3 in Q11, please answer questions Q16 and Q17)

Q16. Which device/s do you use to access these slow journalism media? (Multiple answers possible)

Mobile phone or *smartphone*	1
Desktop computer	2
Laptop	3
Tablet	4
E-readers	5
Other/s, Which? ________	6

Q17. Through which platform/s to you access slow journalism media? (Multiple answers possible)

Via blogs	1
Via social media	2
Via journalists' social media accounts	3
Via the website of the media itself	4

Q18. What kind of content or subject matter do you usually read about in slow journalism? (Rotate answers) (Multiple answers possible)

Politics	1
Economics	2
Culture	3
Sport	4
Science and technology	5
Opinion	6
Society	7
International	8
Free time	9
Other/s, Which? _______	10

Q19. In your opinion, which of the following elements does slow journalism offer you? (Multiple answers possible) ROTATE

Information quality/ clarity	1
Contextualised information	2
Transparency	3
A reflexive attitude	4
A capacity for analysis	5
Creativity	6
Dynamic narration	7
Critical opinion	8
Information about forgotten stories	9
Specialisation	10
Editorial independence	11
Other/s, Which? ______________	12

Q20. Which genre do you prefer in the slow press?

Interview	1
Report	2
Feature	3
Analysis	4
Opinion	5
A text that doesn't belong to any specific genre	6
Another type of genre. Which? _____	7

Q21. Do you have or have you ever had a subscription to a digital slow media?

Yes	1
No	2

Q22. Please evaluate slow journalism in general from 0 to 5, with 0 being the lowest score and 5 the highest.

0	1	2	3	4	5	&

Q23. How would you evaluate the credibility/independence/quality of slow journalism in comparison with the hegemonic media (be it press, radio or television)?

On a scale of 0 to 5, with 0 being the lowest score and 5 the highest.

0	1	2	3	4	5	&

Q24. How would you evaluate the quality of slow journalism you know?

On a scale of 0 to 5, with 0 being the lowest score and 5 the highest.

0	1	2	3	4	5	&

Q25. How would you evaluate the future possibilities for slow journalism (irrespective of whether they are digital or not)?

On a scale of 0 to 5, with 0 being the lowest score and 5 the highest.

0	1	2	3	4	5	&

FOR EVERYONE

Q26. Do you usually share any content socially, or interact critically with the media about prioritisation or rigour?

Yes	1
No	2
Sometimes	3

Q27. Are you interested in the comments people make in the digital press?

Yes	1
No	2

Q28. Would you be prepared to pay more for the quality offered by slow journalism?

Yes	1
No	2

Q29. Do you think that audiovisual/ multimedia resources aid understanding of the news?

Yes	1
No	2
Don't know	3

Q30. Do you think the news media uses these resources appropriately?

Yes	1
No	2
Don't know	3

Q31. Do you think there are any classical news media that fit within "digital slow journalism"?

Yes	1	
No	2	**Go to Q33**
Don't know	3	

Q32. Which classical news media would this be?

____

Q33. Should journalism redirect itself towards online slow journalism?

Yes	1
No	2
Don't know	3

Q34. If 'Yes', why do you think journalism should redirect itself towards online slow journalism?

____

SOCIO-DEMOGRAPHIC DATA

Q35. COUNTRY OF RESIDENCE

Argentina	1
Colombia	2
Spain	3
Mexico	4

Q36. GENDER

Male	1
Female	2
Non binary	3
No answer	4

Q37.AGE

18-34	1
35-49	2
50-65	3

Q38. What is your level of education?

None	1
Compulsory education	2
Professional training	3
Further education	4
University degree	5
Postgrad university degree	6

Q39. What is your employment situation?

Self employed	1
Employed	2
Unemployed	3
Homemaker	4
Student	5
Retired	6

Q40. Please indicate the population size of where you live

Less than 50.000 inhabitants	1
Between 50,000 and 99,000 inhabitants	2
Over 100,000	3

THANK YOU

La voz del periodismo en las redes sociales: cartografía y funciones del *community manager* de medios informativos como nuevo actor de la comunicación periodística

The voice of journalism in social media: cartography and functions of the information media community manager as a new actor in journalistic communication

Alberto Martín-García; Álex Buitrago; Ignacio Aguaded

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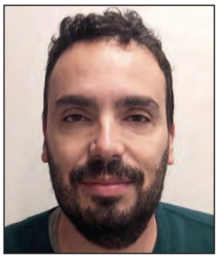

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Resumen

El periodismo ha encontrado en las redes sociales un vehículo de comunicación con la audiencia para mantenerla diariamente informada de los contenidos que publica. Para gestionar esa relación se hace indispensable la figura del *community manager*, un profesional vinculado directamente a los estudios de Ciencias de la Información, especialmente del periodismo y de la publicidad. La metodología es de carácter cualitativo partiendo de la Teoría fundamentada. El procedimiento elegido para la recolección de datos consistió en la realización de trece entrevistas telefónicas a *community managers* de medios españoles de gran prestigio, las cuales fueron tratadas y codificadas con el paquete de análisis *Atlas.ti* en su versión 8.4.3. Las funciones de los *community managers* periodísticos son muy dispares y están en constante evolución. Predomina la percepción de que la calidad del contenido publicado en las redes sociales debe prevalecer respecto a la búsqueda de resultados en forma de clics y de interacciones, en un entorno en el que la información se consume a gran velocidad y donde es más difícil destacar respecto a la competencia. Se concluye que el periodismo digital no ha de recurrir a las redes sociales únicamente como simples intermediarias hacia las webs oficiales, debe generar una comunidad de usuarios que se interese por el medio y por la actualidad. A pesar del ruido comunicativo, las plataformas digitales se ven como beneficiosas para el medio, y como un vehículo eficaz para mantener informada a la audiencia a través de la gestión diaria del *community manager* como voz oficial del medio.

Palabras clave

Periodismo; Redes sociales; Medios sociales; *Community manager*; Información; Comunicación; Medios de comunicación; Alfabetización mediática e informacional; Periodismo digital; Periódicos; Radio; Televisión; Profesión; Formación.

Abstract

Within journalism, social media has become a vehicle of communication that keeps the audience up to date regarding the content they publish. To manage this relationship, the figure of the community manager, a professional directly linked to studies of Information Sciences, is indispensable, especially in Journalism and Advertising. A qualitative methodology is used on the basis of Grounded Theory in 13 telephone interviews with Spanish media community managers. The data were later treated and coded with the analysis tool *Atlas.ti* version 8.4.3. Journalistic community managers have quite varied functions and are in constant evolution. The perception that the quality of content published on social media has more weight than results (in the form of clicks and interactions) prevails in an environment where information is consumed at high speed, and where competence is more difficult to discern. Journalism does not have to turn to social media only as simple intermediaries for official websites; it must build up a community of users interested in the media and the current topics being disseminated. Despite communicative noise, digital platforms are perceived as positive and as an effective tool for the medium, keeping the audience informed through the community manager's daily management as the voice of the medium.

Keywords

Journalism; Social media; Social networks; Community manager; Information; Communication; Mass media; Media and information literacy; Digital journalism; Newspapers; Radio; Television; Profession; Training.

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1. Introducción

Se ha escrito mucho en los últimos años sobre el papel que juega el periodismo en el contexto digital predominante (**Bakker**, 2014; **López-García** *et al.*, 2019; **Neuberger**; **Nuernbergk**; **Langenohl**, 2019; **Willnat**; **Weaver**, 2018). Las redes sociales, presentes en el 94% de la vida de los españoles (*IAB*, 2021), forman parte de ese nuevo panorama establecido en las dos primeras décadas de este siglo. Cuando los medios de comunicación encontraron en estas plataformas un espacio donde compartir sus contenidos y relacionarse con los usuarios, se hizo imperativa la creación de una figura profesional que se encargara de ser su voz en las redes sociales: el *community manager*. Aunque su consolidación es palpable desde años atrás, produciéndose una evolución continua en su responsabilidad dentro del organigrama comunicativo de los medios de información (**Fernández-Barrero**; **Ufarte-Ruiz**, 2013), abordamos esta investigación con el objetivo de actualizar su papel, ya que estamos ante una profesión multidisciplinar que progresa a la vez que lo hacen los usuarios y las plataformas digitales.

Marquina-Arenas (2012, p. 27) lo define como

> "un profesional que se encarga de las relaciones e interacciones entre una entidad y sus usuarios, clientes y público en general a través de los medios y redes sociales online".

Profundizando más en el concepto,

> "es el punto de unión entre la compañía y su entorno global por medio de la *web*" (**Hernández-Morales**; **Silva-Aguilar**; **Rivera-Rodríguez**, 2013, p. 70).

Y en la misma línea, ampliamos que el *community manager*

> "es el perfil profesional responsable de gestionar la presencia de una empresa o marca en el entorno 2.0., […] lo podemos considerar el puente entre su comunidad (consumidores o potenciales) y la empresa" (**Paredes-Sandoval** *et al.*, 2019, p. 3).

La rapidez a la que evolucionan las redes sociales convierte al *community manager* en un comunicador en constante definición. Reafirmamos que no estamos ante una figura estática en lo que a estilo y funciones se refiere (**Fernández-Barrero**; **Ufarte-Ruiz**, 2013) ni afecta diferente al entorno del periodismo este cambio progresivo respecto a otros sectores empresariales o institucionales.

La capacidad de gestión de la comunidad, tarea esencial en el perfil durante los primeros años, ha perdido importancia frente a la capacidad para generar contenidos y a otras tareas más próximas al marketing digital, como la

> Los *community managers* consideran que la formación que se recibe desde las universidades está lejos de ser la adecuada

atención al cliente y las relaciones con los *stakeholders* (**Mañas-Viniegra**; **Jiménez-Gómez**, 2019, p. 9).

> Las redes sociales basan su éxito y su dinamismo en la bidireccionalidad, en una relación que acerque al medio a sus públicos y no los trate como simples sujetos pasivos que recepcionan y asimilan noticias

Independientemente de las funciones concretas que cada medio exija a su *community manager*, el objetivo principal no varía en tanto en cuanto la audiencia sigue siendo prioritaria. Se precisa entender que las redes sociales basan su éxito y su dinamismo en la bidireccionalidad, en una relación que acerque al medio a sus públicos y no los trate como simples sujetos pasivos que recepcionan y asimilan noticias.

1.1. Formación del *community manager* en el periodismo

Ya desde los primeros momentos de su consolidación en el panorama comunicativo, los estudios de grado o licenciatura de periodismo se vieron como una puerta de acceso a la profesión (**Cobos**, 2011; **Mañas-Viniegra**; **Jiménez-Gómez**, 2019; **Silva-Robles**, 2016). Nos encontramos ante un perfil que, con su aterrizaje en el mundo periodístico, obligó a los trabajadores que gestionan las redes sociales a una evolución en sus funciones y en cómo hacer llegar las noticias a la audiencia (**Marqués-Hayasaki**; **Roca-Cuberes**; **Singla-Casellas**, 2016), lo que nos lleva a otorgarle importancia a la formación académica a la que han de enfrentarse previamente. Estudiar grados como Periodismo y también Publicidad y RR.PP. se presupone como el proceso natural para trabajar como *community manager*, proceso que también se hace visible cuando la entidad para la que se va a ejercer la profesión es un medio de comunicación.

Pese a ello, los *community managers* consideran que la formación que se recibe desde las universidades está lejos de ser la adecuada (**Buitrago**; **Ferrés**; **García-Matilla**, 2015). Aunque entre las competencias trabajadas en las universidades observamos que se abordan algunas de las vinculadas con el oficio analizado, como son, entre otras, las relacionadas con la redacción, la tecnología o la relación con los usuarios; la realidad es que en los planes académicos la inclusión de asignaturas específicas sobre *community management* y la gestión de los medios sociales es anecdótica. Autores como **Álvarez-Arregui**; **Arreguit** (2019); **Jiménez-Hernández**; **Marta-Lazo** *et al.*, (2018); **Sancho-Requena**; **Sánchez-Fuentes** (2019) o **Rodríguez-Espinar** (2017), abordan retos y problemas a los que se enfrenta la universidad del futuro. El progreso de la tecnología y de las profesiones asociadas a ella requiere de una formación continua y unos conocimientos actualizados del profesorado, y la universidad corre el riesgo de que sus contenidos queden obsoletos y fuera de la realidad existente en el entorno laboral.

Desde las universidades se ha de valorar que su alumnado, en lo referente al *community manager*, sea multifuncional, con la dificultad de llegar a todos los perfiles que se solicitan en las ofertas de trabajo. También con talento digital, capaz de adaptar su actividad a distintos soportes. Es lo que se le exige al *community manager* periodista (**Palomo**; **Palau-Sampio**, 2016) y lo que ha de promoverse desde las instituciones académicas de enseñanza superior.

1.2. Relevancia del *community manager* en la difusión de la información

La creación de comunidades y de una comunicación en tiempo real son ventajas que en el caso del periodismo cobra especial relevancia en lo que respecta a mantener a la audiencia informada con contenidos casi en el momento en el que se han producido. Ejemplos como los ataques terroristas en Barcelona, Manchester o París, fenómenos meteorológicos como Filomena, o la reciente pandemia motivada por el Covid-19, pusieron de manifiesto que las redes sociales son espacios a los que se acude en primer lugar para informarse y actuar en consecuencia. La relación de los periodistas con la ciudadanía ha cambiado radicalmente con el asentamiento de las redes sociales como plataformas en las que se pueden informar sin ni siquiera pasar por la web oficial, el periódico en papel, o sin necesidad de visionar un espacio informativo en televisión (**Broersma**; **Eldridge**, 2019).

El *community manager* asume el papel de intermediario con el público, por lo que ha de saber expresarse y conocer el lenguaje de los miembros de la comunidad para dirigirse a ella de forma correcta (**Cobos**, 2011). En este punto debemos diferenciar al *community manager* de cada medio, que es quien cubre todo el contenido procedente de la entidad, del uso que cada periodista hace de sus cuentas personales.

Molyneux, **Lewis** y **Holton** (2019) exponen cómo los periodistas ven en las redes sociales una oportunidad de crecimiento, de desarrollar relaciones y de fidelizar a los lectores, pero sus intereses chocan habitualmente con los de la entidad, centrada también en la viabilidad económica del medio. Es habitual encontrar que los periodistas utilizan sus cuentas como una prolongación de su trabajo, ofreciendo los contenidos que publican –ellos o sus compañeros– a sus seguidores (**Brems** *et al.*, 2017; **Hanusch**; **Bruns**, 2017; **Molyneux**, 2019). Este hecho demuestra que el periodista en el entorno digital es un enlace directo entre el medio y la audiencia, responsabilidad que en etapas anteriores, en la época del papel, no le correspondía, convirtiéndose cada uno en *community manager* de su propia marca personal, pero asociada a los intereses de la entidad a la que está vinculado. Esto, que a priori podría verse como

> Desde las universidades se ha de valorar que su alumnado, en lo referente al *community manager*, sea multifuncional, con la dificultad de llegar a todos los perfiles que se solicitan en las ofertas de trabajo

una función ajena al periodista, se percibe como coherente dado que el objetivo es el de difundir información a la sociedad (**Gómez-Calderón**; **Roses**; **García-Borrego**, 2017; **López-García**; **Rodríguez-Vázquez**; **Pereira-Fariña**, 2017).

> Los intereses de los periodistas chocan habitualmente con los de la entidad, centrada en la viabilidad económica del medio

En este marco comunicativo asentado no se debe olvidar que, a medida que pasen los años, los medios se encontrarán con públicos que tienen más asimiladas las redes sociales desde etapas tempranas de sus vidas. Los jóvenes consumen periódicos y radio eminentemente de forma digital, lo que hace imperativo conectar con las nuevas generaciones a través de las redes sociales, formatos en los que se encuentran cómodos (**Soengas-Pérez**; **López-Cepeda**; **Sixto-García**, 2019) y que difieren de los clásicos, de la época impresa. Pero no sólo debemos detenernos en aspectos técnicos; el exceso de información y de posibilidades comunicativas a las que están expuestos tiene como resultado la transformación de las personas en audiencias menos críticas que dedican menos tiempo a la comprensión y al entendimiento de las noticias (**Wang**, 2021). Este hecho debe replantear la estrategia en las redes sociales –y por extensión la del *community manager*– para captar la atención más allá de la lectura efímera de las publicaciones que se comparten diariamente. Dentro de las plataformas digitales, la dificultad añadida de competir en la búsqueda de atención con los contenidos generados por las personas y las marcas que sigue un usuario no es un problema menor, y ha de resolverse conociendo mejor a los receptores y ofreciendo contenidos interesantes que les hagan leer, visionar o escuchar de forma pausada y constructiva.

No podemos cerrar este epígrafe sin reseñar la importancia del *community manager* no solo como creador y difusor en las redes sociales del contenido del medio de comunicación, sino de cortafuegos ante dos de las grandes problemáticas existentes en el contexto digital: la desinformación y los bulos, también llamados *fake news* (**Blanco-Navarro**; **Navío-Navarro**, 2019). Anticiparse e identificar noticias que no se ajustan a la realidad, y que la mayoría de veces son lanzadas de forma maliciosa, contribuirá a mantener a la sociedad correctamente informada, evitando que se creen situaciones perjudiciales que pueden afectar directa o indirectamente a los individuos (**Pérez-Rey**; **Calderón**, 2019; **Shu** *et al.*, 2017). El periodismo ha de reivindicarse y ofrecer todos los recursos a su alcance para ser el canal digital verdadero por el que se informe la sociedad. Estamos ante un panorama complejo en el que la velocidad del consumo de datos y la ingente cantidad de fuentes de información producen continuamente la citada desinformación y bulos de muchos tipos. De igual manera tiene un papel importante para controlar y luchar contra los mensajes de odio que recibe el medio, y que tienen múltiples formas, como son la manipulación, la búsqueda del engaño, la difamación, los ataques y el desprecio (**Frischlich**; **Boberg**; **Quandt**, 2019). Si bien se desprende de estudios como el de los autores citados que los *community managers* tienen asimilado el odio como algo presente de forma habitual pero no mayoritario, no se trata de un asunto menor y debe ser tratado en función de la estrategia que implante cada medio de comunicación, siendo en ocasiones mero observador, en otras más activo y en ocasiones participativo, intentando reducir con argumentos dichos ataques.

1.3. Periodismo digital *vs.* resultados

El *community manager* se enfrenta a un trabajo que no admite descanso al estar en continuo contacto con su público (**Yu** *et al.*, 2017) lo que puede generarle un mayor nivel de estrés (**Brooks**; **Califf**, 2017). Más en un entorno como el periodístico en el que se exige una actualización permanente de las noticias que se producen y que han de quedar publicadas rápidamente, a diferencia de las marcas más comerciales en las que no se producen con tanta frecuencia hechos noticiosos relacionados con su actividad. Pero más allá del éxito de una buena gestión de las redes sociales de un medio de comunicación, y que a nivel cuantitativo y cualitativo se traduce en una mayor participación (**Hanusch**; **Tandoc Jr.**, 2019) en forma de 'me gusta', comentarios, publicaciones compartidas, retweets, reproducciones de un vídeo, etc.; no debemos dejar de lado que las redes sociales han de ser un vehículo de obtención de ingresos para la subsistencia del medio, en un contexto en el que los ingresos generados por la audiencia son o pueden llegar a ser tan importantes como los procedentes de la publicidad (**Westlund**; **Ekström**, 2018).

Actualmente el papel de los medios de comunicación se ve resentido por la continua necesidad de generar tráfico en la web, produciéndose en algunos casos una devaluación del contenido en favor de intereses publicitarios (**Aronczyk**, 2020). Destacamos entre esa devaluación una técnica que en los últimos años ha adquirido protagonismo, el *clickbait* o ciberanzuelo: contenidos que buscan llamar la atención del usuario con el objetivo de generar tráfico hacia una web con la redacción de un texto que sirve de gancho y que no siempre ofrece al lector lo que aparenta el mensaje inicial (**Blom**; **Hansen**, 2015). Optar por opciones persuasivas de este estilo puede suponer una rebaja en la credibilidad del periodismo, entre otros motivos porque

> "afecta a la calidad informativa al saturar de noticias banales, exageradas y de recursos expresivos que sirven de gancho la información difundida por los medios en redes sociales" (**Bazaco**; **Redondo**; **Sánchez-García**, 2019, p. 112).

> El *community manager* actúa también de cortafuegos ante dos de las grandes problemáticas existentes en el contexto digital: la desinformación y los bulos

Napoli (2019) y **Klinger** y **Svensson** (2018) abordan la problemática de que en las redes sociales los informáticos y los codificadores juegan un papel más relevante que el propio periodista a la hora de lograr que los lectores accedan al contenido desde las plataformas digitales, lo que supone una pérdida de control del profesional de la información. La complejidad de las redes sociales y los objetivos económicos de las grandes corporaciones como *Facebook* han delimitado el alcance de las publicaciones que las marcas hacen en sus propios canales, dependiendo ahora de un conjunto de factores económicos y de contenido para llegar a los usuarios, que reciben las noticias en función de sus intereses y los de su entorno, creando en ocasiones una realidad que puede estar sesgada. Con la llegada del periodismo transmedia, que el *community manager* periodístico conozca cuáles son los códigos y tendencias predominantes será determinante para que los contenidos difundidos por el medio lleguen a la audiencia (**Renó**; **Renó**, 2017) y sea posible el equilibrio entre mantenerla informada y los resultados económicos que espera el medio.

2. Objetivos

Establecemos 4 objetivos principales que abordan 3 ejes fundamentales en nuestra investigación: el eje formativo; el relativo a las funciones que se le exigen al *community manager* periodístico; y un tercer eje en el que, a partir de la experiencia de los profesionales entrevistados, buscamos conocer cuál es la relación de los medios de comunicación con la audiencia, y si la llegada de las redes sociales ha supuesto en mayor medida un beneficio o un perjuicio en términos de calidad informativa.

a) Definir la formación que tienen los *community managers* vinculados al periodismo y las habilidades que se les exigen.

b) Establecer las funciones actuales que tienen los *community managers* periodísticos y las habilidades que se les presuponen.

c) Conocer cuál es la relación de los medios de comunicación con los usuarios que los siguen en sus cuentas oficiales en las redes sociales.

d) Citar situaciones que son beneficiosas o conflictivas para el soporte, a juicio de los profesionales entrevistados, al producirse un contacto directo y continuado con los usuarios.

3. Metodología

Partimos de una metodología cualitativa sustentada en la Teoría fundamentada (**Strauss**; **Corbin**, 2008; **Gibson**; **Brown**, 2009), cuyo objetivo es la búsqueda de explicaciones a un fenómeno social dentro de su contexto natural, apoyándonos en los informantes que participan en dicho fenómeno como objetos de estudio. Realizamos 13 entrevistas telefónicas a *community managers* que ejercen su labor en medios de comunicación españoles, abarcando en la muestra los tres tipos por excelencia de medios periodísticos: prensa escrita (tanto digital como en papel), radio y televisión. Se especificó a los participantes que el contenido sería transcrito y que sus opiniones quedarían codificadas para evitar que se produjeran sesgos.

Las entrevistas se realizaron entre los meses de mayo y noviembre del año 2021. Se estableció un primer contacto con los participantes mediante correo electrónico para explicarles con detalle en qué consistía nuestra investigación. Tras la aceptación se fijó un día para la realización de la llamada telefónica, puntualizando a los *community managers* que tenían libertad para extenderse en sus respuestas lo que consideraran oportuno, siendo finalmente la media de duración de 28 minutos. Debido a la situación sanitaria se descartó la opción de materializar las entrevistas de forma presencial.

3.1. Cuestionario

De cara a cumplir los objetivos expuestos anteriormente, el diseño del cuestionario se prefijó en base a 3 temáticas principales: formativa, de funciones y de relación entre el medio y el usuario, pudiendo los participantes en cualquier momento añadir ideas complementarias ajenas a las preguntas formuladas.

Formación

P1: ¿Qué titulación reglada (universitaria, de formación profesional máster, curso…) has recibido para empezar a trabajar de *community manager*?

P2: ¿Consideras que para ser un buen *community manager* es necesario disponer previamente de alguna titulación en concreto o alguna de las antes mencionadas? ¿Por qué?

P3: Si tuvieras que valorar lo mejor y peor de la formación académica que has recibido para llegar a ser *community manager*, ¿qué destacarías?

P4: ¿Cuáles son las habilidades, ya sean comunicativas, tecnológicas, sociales, creativas…, que debe tener un *community manager* de un medio de comunicación para ejercer su labor de forma eficaz?

Funciones

P5: ¿Podrías enumerar cuáles son tus funciones como *community manager* (*CM*)? ¿Han variado mucho en los últimos años?

P6: ¿Realizas en tu medio tareas que se alejan de las del *CM*? ¿Puedes citarlas?

P7: ¿Cuáles son los motivos principales por los que los usuarios acuden a contactarte en las redes sociales? ¿Crees que se cumplen las expectativas de los usuarios cuando tú como *CM* les respondes?

P8: ¿Qué papel otorgas al *CM* y a las redes sociales de tu medio a la hora de hacer que los usuarios se mantengan informados de la actualidad?

Relación medio/usuario

P9: Desde un punto de vista de la redacción de las publicaciones y de la imagen/link que los acompaña en las redes sociales, ¿qué aspectos consideras decisivos para que el usuario haga clic y se dirija a la web del medio?

P10: ¿La consolidación de las redes sociales ha contribuido a que el ciudadano esté más o menos informado? ¿Por qué?

P11: ¿Crees que la importancia de la calidad de un texto periodístico/informativo ha quedado relegada a un segundo plano con el auge de las redes sociales?

P12: ¿Cómo valoras el comportamiento de los usuarios respecto a tu medio en aspectos como credibilidad, respeto o interés por los contenidos ofrecidos?

3.2. Criterios de selección de los *community managers* entrevistados

Los criterios sobre los que basamos la elección de los *community managers* han sido:

a) Al menos un año gestionando la marca. Así disponíamos de una perspectiva amplia de la marca no sólo respecto a su presente sino también a las acciones ejecutadas anteriormente.

b) Que la entidad tuviera al menos tres plataformas de entre las siguientes: *Facebook*, *Twitter*, *Instagram*, *YouTube* y *TikTok*, las más populares junto a *WhatsApp* según el último estudio de *IAB* (2021).

c) Que estuvieran presentes los tres tipos por excelencia de medios periodísticos: televisión, radio y prensa escrita (digital y en papel).

d) Que representasen a medios de los tres ámbitos geográficos principales en España: nacional, regional y provincial. Remarcamos que en esta investigación están representados las dos corporaciones audiovisuales más importantes (*Mediaset* y *Atresmedia*), el segundo periódico con más impresiones en Internet (*La vanguardia*), las dos radios generalistas más escuchadas en España (*Cadena SER* y *Cadena COPE*), la televisión pública española de cobertura nacional (*TVE*) así como los dos periódicos digitales nativos más consultados en la actualidad (*El español* y *El confidencial*) (*EGM*, 2021).

Resultados de la 3ª ola de 2021 del *Estudio General de Medios*:
https://reporting.aimc.es/index.html#/main/internet

Asimismo, se ha pretendido que existiera un equilibrio entre las líneas ideológicas editoriales de los medios seleccionados.

Tabla 1. Relación de *community managers* entrevistados y medios representados

Community manager	**Tipo**	**Medio de comunicación**	**Nº de seguidores totales en las redes sociales**
Rocío Díaz	Televisión, radio y web	*RTVE*	3.279.502
Patricia Escalona	Televisión y web	*Atresmedia*	10.656.667
Sonia Got	Televisión y web	*Mediaset*	5.724.749
Alejandro Rodríguez	Radio	*Cadena SER*	2.913.831
Mercedes Muñoz-De la Peña	Radio	*Cadena COPE*	1.263.553
Marta Jiménez	Periódico digital	*El español*	1.344.059
Clara Navarro	Periódico digital	*Eldiario.es*	2.223.993
Eva Moreno	Periódico digital	*El confidencial*	2.526.183
Enrique Yuste	Periódico digital y en papel	*Norte de Castilla*	254.654
Alejandro Martín	Periódico digital y en papel	*El Adelantado de Segovia*	39.435
Mónica Cebrián	Periódico digital y en papel	*La vanguardia*	7.296.674
José-Manuel Real	Periódico digital y en papel	*El periódico*	1.810.669
Javier Corcuera	Periódico digital y en papel	*ABC*	4.204.123

Los datos del total de seguidores están actualizados a 12 de diciembre de 2021 y son la suma de las cinco plataformas digitales sociales más populares (*Facebook*, *Twitter*, *Instagram*, *TikTok* y *YouTube*).

3.3. Libro de códigos del análisis cualitativo

Para lograr la máxima fiabilidad establecimos un proceso de trabajo riguroso consistente en una primera fase de lectura de las transcripciones de las entrevistas, una segunda en la que comenzamos a realizar anotaciones (memos) con *Atlas.ti* sobre los elementos que presumíamos podían ser de interés. Ya en una tercera lectura se inició la selección de las citas y la clasificación de los códigos, que son la base principal de esta investigación. Finalmente se revisaron tanto las citas como los códigos a los que pertenecían, produciéndose en este punto un ajuste consistente en la fusión de ciertos códigos con otros existentes, así como asignar a algunas citas una doble codificación, ya que el contenido de las mismas tenía cabida en dos o más códigos. En la siguiente tabla detallamos cuáles fueron finalmente los 19 seleccionados.

Tabla 2. Libro de códigos del análisis cualitativo

Familia	Código	Breve explicación
Formación	FOR en periodismo	Entrevistados que han cursado el grado o la licenciatura en periodismo
	FOR en publicidad y RR.PP.	Entrevistados que han cursado el grado o la licenciatura en publicidad y RR.PP.
	FOR positiva	Respuestas que hablan de que la formación universitaria recibida para ser *community manager* fue positiva
	FOR negativa	Respuestas que hablan de que la formación universitaria recibida para ser *community manager* fue negativa
	FOR propuesta de mejora	Contenidos actualizados que proponen los entrevistados para los planes de estudios universitarios
Funciones	FUN bien definidas	Citas que afirman que las competencias del *community manager* están bien planteadas
	FUN mal definidas	Citas que afirman que las competencias del *community manager* están mal planteadas
	FUN ajenas	Citas que afirman que el *community manager* ejerce funciones ajenas a su labor principal
	FUN contenidos/usuarios	Citas que afirman que la principal función del *community manager* es gestionar los contenidos y la relación con los usuarios
	FUN diseño/creatividad	Citas que incluyen entre las competencias labores propias del diseño y la creatividad
	FUN medios	Citas que incluyen entre las competencias labores propias de los planificadores de medios
Usuarios	USU preparados	Citas en las que se afirman que los usuarios mantienen una relación constructiva con el medio
	USU no preparados	Citas en las que se afirman que los usuarios mantienen una relación conflictiva con el medio
	USU respeto	Citas en las que se afirman que muchos usuarios recurren a faltas de respeto e insultos cuando interactúan con el medio
Información	INFO calidad	Citas en las que los *community managers* afirman que la información periodística en las redes sociales es de calidad
	INFO superficial	Citas en las que los *community managers* afirman que la audiencia en las redes sociales no profundiza en los contenidos compartidos por el medio
	INFO complementaria	Citas en las que se categoriza a las redes sociales como un complemento al contenido que el medio tiene en su soporte principal
	INFO contenidos	Citas en las que se alude a la importancia de generar contenidos de valor y en recurrir a los formatos más adecuados para impactar en los usuarios
	INFO *community*	Citas en las que reivindica el papel del *community manager* y su experiencia como fundamentales para lograr tener una sociedad informada a través de las redes sociales

De cara a la identificación de los profesionales en los extractos de las respuestas que compartimos en los resultados, para garantizar el anonimato establecemos dos categorías básicas para orientar al lector sobre la procedencia de las opiniones. Estas son: a) Por estudios cursados (PUB= Publicidad; PER= Periodismo) y por tipo de medio de comunicación para el que trabajan (PRE= Periódico digital; TV= Televisión; RAD= Radio).

4. Resultados

Una vez analizadas, transcritas y codificadas con *Atlas.ti* las trece entrevistas, establecimos las categorías que han resultado ser predominantes a partir de las respuestas de los *community managers* que gestionan las redes sociales de los soportes especificados en la tabla 1. A pesar de la limitación numérica de la muestra, el hecho de que los sujetos de estudio pertenezcan a una amplia diversidad de formatos y de estructura, y que aglutine a una alta cantidad de seguidores, la convierte en una referencia válida para tomar el pulso de su situación laboral a partir de los tres ejes principales definidos en el punto dos: formación, funciones y relación con los usuarios.

4.1. La experiencia práctica como eje principal del aprendizaje y las carencias formativas en el sistema universitario

Todos los *community managers* de la muestra son titulados en Periodismo, Comunicación Audiovisual o Publicidad y RR.PP. Sin considerarse como un imperativo para ser un buen profesional, sí que se desprende que la base teórica que se imparte es de utilidad como un punto de partida. Sin embargo, uno de los códigos más representados en nuestro análisis tiene que ver con las carencias que, a juicio de los entrevistados, poseen los estudios universitarios de Ciencias de la Información a la hora de ofrecer un contenido actualizado sobre la gestión de las redes sociales que esté relacionado con el momento profesional vigente en cada momento, crítica que también se hace extensiva a los masters de comunicación y de publicidad que abarcan múltiples aspectos digitales.

> PER/TV: "En el grado de periodismo no di nada de *community manager*, se basaba solo en prensa escrita, ni siquiera en prensa digital. Y en el máster solo había una asignatura, que tampoco me dio mucha formación. La formación la he adquirido en las prácticas curriculares y extracurriculares".

> PER/RAD: "No tiene sentido que en los planes de estudios actuales de los grados de periodismo se siga hablando de cómo escribir en un blog y no de cómo comunicar, por ejemplo, en *TikTok*".

La creencia en una ausencia de formación universitaria completa para ejercer de *community manager* en el marco de periodismo tiene su explicación en el cambio que sufren las funciones a las que se enfrentan, muchos de ellos relacionadas con la tecnología. Esta progresa a un ritmo superior a la que lo hacen los planes de estudio impartidos en las universidades, produciéndose un alejamiento entre el mundo académico y el profesional. Pese a que hay algunas diferencias en las respuestas que nos dan quienes han estudiado licenciatura respecto a grado, relativas a que en la primera opción no se hablaba de Internet en las aulas y en los programas actuales sí que hay referencias, predomina una postura unitaria que gira entorno a que las universidades van muy por detrás de la profesión y que los contenidos a enseñar están parcialmente obsoletos y no ahondan en las nuevas tendencias que van apareciendo continuamente. No identificamos un progreso amplio en la comparación entre ambos planes de estudio.

Las universidades van muy por detrás de la profesión y que los contenidos a enseñar están parcialmente obsoletos y no ahondan en las nuevas tendencias que van apareciendo continuamente

> PUB/RAD: "Desde que me he graduado hasta ahora han cambiado muchas cosas. Tuvimos varias asignaturas anuales de programación, pero eché en falta cómo gestionar un *Wordpress*, o *Google Ads*, *Facebook Ads*... La parte de publicidad digital no se tocó".

Creemos importante remarcar las habilidades profesionales y personales que debe tener un gestor de redes sociales periodísticas, y que no han de adquirirse según los entrevistados únicamente mediante la experiencia laboral sino también desde las aulas. Impartir conocimientos teóricos sin profundizar en las habilidades genera un aprendizaje incompleto, con la consiguiente problemática en forma de errores comunicativos que pueden ocasionar en un entorno que, además, penaliza los fallos de los medios de comunicación, ya sea con críticas o con mofas hacia la entidad.

> PUB/PRE: "Yo creo que tiene que ser una persona muy abierta, muy capaz de adaptarse a todo, porque es un mundo que no conocemos todavía al 100% y que está cambiando constantemente, por lo que tiene que adaptarse. También saber entender que es tu trabajo y no tu vida, porque es un trabajo que lo llevas en el bolsillo, entonces creo que tienes que ser una persona que sepa diferenciar".

> PER/PRE: "Escritura impecable, estar al tanto de la actualidad, cultura general y sentido común. También es deseable una interpretación analítica para poder sacar conclusiones del trabajo realizado y mejorar".

Las carencias formativas son corregidas mediante el aprendizaje práctico, una vez dentro del medio de comunicación para el que se trabaja. Predomina entre los *community managers* la aceptación de que desde dentro de las aulas sólo se puede aspirar a los conocimientos teóricos y a que la formación práctica solo se va a llegar desde el ámbito laboral, aunque no por ello se identifica como la fórmula idónea.

> PUB/PRE: "A nivel práctico tampoco te enseñan mucho en la universidad, sobre todo a la hora de análisis de datos, métricas, ver si tu gestión de las redes va por buen camino o hay que mejorarla... Al final lo aprendes ya trabajando, en el día a día y conociendo cómo es el medio en el que estás, y a tus compañeros".

> PER/PRE: "Que hay mucha teoría y poca práctica. Es decir, se teoriza mucho, pero hasta que no se trabaja sobre el terreno no se llega a dominar el entorno".

Conviene resaltar que el aprendizaje y la experiencia real de las que hablamos tienen puntos de divergencia en función del tamaño del medio de comunicación. Observamos en las respuestas que, aunque los trece profesionales pertenezcan a la misma profesión, hay aspectos muy relevantes que generan diferencias entre los canales con más recursos y los que tienen un alcance regional o provincial. De las respuestas obtenidas destacamos cuatro:

a) En los medios de comunicación más locales el contenido que se emite en las redes sociales tiende a ser una reproducción de las noticias que se publican en la web oficial, es decir, son más un canal de intermediación entre soporte y espectador que un generador de contenidos ajenos a las noticias.

b) Al disponer de menos recursos económicos destinados a la gestión de las plataformas digitales, es más frecuente encontrar funciones más diversas en los *community managers* de los medios con más limitaciones, como pueden ser el diseño gráfico, la fotografía o la planificación de medios y captación de nuevos seguidores.

c) En los medios analizados que forman parte de grandes corporaciones, se identifica más crispación entre los usuarios y un menor nivel de relación bidireccional con la marca, provocada en parte por la gran cantidad de comentarios que reciben.

d) Del apartado anterior se concluye que, en los soportes regionales y locales, el *community manager* entabla una relación más cercana con los internautas al ser menor el número de comentarios, dudas y quejas que le llegan, pudiendo dedicar tiempo a cada una.

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4.2. Una profesión cada vez más multidisciplinar y en constante evolución

Las funciones del *community manager* desde su aparición en la primera década del siglo XXI no han permanecido estáticas durante los años en los que se desarrollaban y consolidaban las redes sociales (**Fernández-Barrero**; **Ufarte-Ruiz**, 2013). Esta realidad se observa en las respuestas de los entrevistados relativas a sus funciones, con una amplia variedad que oscila dependiendo de cada entidad, que entiende la profesión de una manera similar en algunos puntos y diferente en otros, tal como vemos a continuación con dos graduados en periodismo que trabajan en periódicos digitales.

> PER/PRE: "Son diferentes a cuando empecé, sí, o más amplias diría. Escucha social, vigilar a la competencia, campañas en redes sociales, contestar a los usuarios, postear, hacer directos, píldoras específicas para redes, analítica, etc.".

> PER/RAD: "La profesión de *community manager* va mucho más allá de poner posts en las redes sociales, es mucho más, trasciende eso. Creo que la capacidad creativa es fundamental y la creatividad tecnológica es indispensable. Es un híbrido entre ser un buen periodista y un comunicador audiovisual".

> PER/PRE: "Coordinar equipo, planificación de eventos, y después la supervisión de eventos a largo plazo y eventos del día a día".

A la misma pregunta obtenemos respuestas variopintas que abarcan desde las más básicas y primitivas, como publicar contenidos, contestar a la audiencia o tramitar quejas, hasta otras que en sus orígenes no correspondían a los *community managers* y sí a los planificadores de medios, como son las campañas de pago (*paid media*) en redes sociales, o la creación de piezas gráficas o audiovisuales, tarea antaño más propia de los departamentos de creatividad y de diseño de las agencias de publicidad. La asimilación de las nuevas tareas que van añadiéndose a las antiguas no se ve en líneas generales como competencias ajenas a su trabajo y sí como una parte más de un todo que no deja de crecer y de progresar.

> PUB/PRE: "Mis funciones son de *social media* y de *community manager*. Ahora lo unimos y los que estamos dentro sabemos diferenciarlas. Hago el contenido completo, desde que voy a la reunión o al evento, hago la foto o el vídeo, la edito, subo el vídeo a las redes sociales, contesto a todas las preguntas que haya, a los mensajes que haya. Mi tarea es desde el principio hasta el final y solamente estoy yo".

Encontramos una tendencia común que señala a la ausencia de desconexión de las redes sociales fuera de las horas pactadas de trabajo. La sensación de que entre sus funciones está la de permanecer en alerta a cualquier noticia, queja o incidencia, los obliga a dedicarles más tiempo del esperado. El aumento de funciones no deja de lado que para los *community managers* lo más importante sigue siendo la relación con su audiencia, escucharla, testar sus opiniones, ofrecerle contenido de interés, generar debate, etc., pues es la diferencia más grande que ven respecto a otros medios más tradicionales que se comportan de forma unidireccional.

> PUB/RAD: "Nos preguntan por los programas, te avisan si algo está mal en la web. Recibimos más mails, preocupaciones, historias que podemos usar en antena, notas de prensa, contactamos con los fans de los protagonistas de los programas para generar retroalimentación".

> PER/PRE: "Sobre todo nos contactan para testimonios. Yo creo que la respuesta es satisfactoria porque normalmente es una escucha activa la que hay que tener en las redes, seas medio o seas marca. La escucha activa es muy importante y hay que dar respuesta, siempre hay alguno que se te pueda escapar, pero en general los que atendemos suelen quedar satisfechos".

La conversación y la sensación de que la entidad se preocupa por su público es realmente el valor añadido que da sentido a la presencia de las marcas en las redes sociales

Esa conversación y la sensación de que la entidad se preocupa por su público es realmente el valor añadido que da sentido a la presencia de las marcas en las redes sociales.

4.3. Las redes sociales como un medio propio de acceso a la información periodística

Otro de los códigos donde más citas recogemos en el programa de análisis cualitativo *Atlas.ti* habla de cómo las redes sociales de cada entidad se han convertido en un medio de comunicación periodístico 'independiente' que puede ejercer su función informativa sin necesidad de apoyarse en la web oficial. Los recursos que dedica el periodismo a las plataformas digitales hacen que ya no sean un simple enlace entre la audiencia y la propia web.

PUB/PRE: “Le doy un papel bastante importante. La comunidad que tenga el periódico en sí, sean suscriptores o lectores fieles, dista mucho del tipo de perfil que tenemos en redes sociales. En las redes intentamos llegar al máximo número de personas posible, obviamente tenemos nuestro nicho y sabemos que características tiene y cómo le gusta la información presentada”.

No obstante, los medios de comunicación necesitan viabilidad económica, y esta se consigue a través de la publicidad que se aloja en las webs oficiales, por lo que el *community manager* periodístico siempre ha de tener entre sus objetivos generar y mostrar los contenidos de tal manera que la relación con el usuario no termine en la red social, sino que se produzca el tan ansiado tráfico hacia su medio.

PER/TV: “La participación en las redes está muy bien, y a todos los *community* se nos hincha el pecho cuando un post se vuelve viral y demás, pero yo creo que para que alguien se informe bien es necesario saber más cosas que las que ponemos en *Facebook* o en *Twitter*. La información más detallada siempre va a estar en la web, pero hacerles llegar hasta ahí desde las redes no es fácil, y tengo que intentarlo siempre porque al final los *likes* no dan de comer al medio y la web sí que es una fuente de ingresos”.

Ese acceso a la información es de calidad cuando tanto desde el medio como desde la labor del *community manager*, y siempre en consonancia con los objetivos marcados por la empresa, se ofrecen contenidos acordes a la realidad y a la fidelidad de los hechos relatados. Valorar el éxito en las redes sociales de un medio de comunicación a partir de datos como los ‘me gusta’ (*likes*), comentarios o compartidos, o incluso de clics, puede ser un error si detrás de la información el público percibe que no era lo que prometía el medio en el titular de la publicación.

PER/RAD: “La gente hará clic si el contenido es bueno, si no se sentirá estafada. Hay una oleada de *clickbaits* bestial, es una sensación de fracaso hacia el usuario tremenda. A corto plazo puede funcionarte, pero terminarás echando a la gente de las redes sociales. Hay formas de hacer bien las cosas, con un buen texto, una buena imagen... que pueden atraer a la gente sin engañarla. Tenemos que preguntarnos a nosotros mismos ‘¿harías clic tú en este post?’ Si la respuesta es no, no lo hagas”.

Siguiendo la misma línea, se observa una tendencia a la crítica constructiva y a no caer en la complacencia. Los entrevistados reniegan de una generalización que afirme que la calidad periodística se ha visto reducida con las redes sociales, aunque a su vez ponen el foco en que el tiempo que se dedica a consumir una noticia es inferior a la deseada.

PUB/RAD: “Actualmente medimos si somos líderes o no a través de las visitas al mes. Me gustaría que se tuvieran en cuenta otras métricas, pero por interés publicitario se mide por visitas a la web, y eso hace daño. Hay periodistas con rigor, pero poco alcance en redes y tienen pocos clics. Lo espectacular, pero a veces sin trasfondo como poner trucos para hacer la tortilla perfecta, tiene más clics que una noticia importante o más profunda. Eso tendría que cambiar para que el periodismo no haga noticias absurdas. Lo ves en periódicos deportivos que cuentan cosas de la prensa rosa porque le dan visitas”.

De igual manera, la velocidad a la que se consume la información periodística requiere una rápida actualización de cada soporte, lo que para los profesionales entrevistados puede suponer un problema cualitativo si no se tiene el tiempo suficiente.

PER/PRE: “Las redes han provocado que la información sea más fácil que se mueva de una forma más rápida, pero no por ello de más calidad. El usuario que realmente quiera estar informado consulta varios periódicos, compara portadas, titulares y textos, y paga, que eso es importante”.

Uno de los *community managers* entrevistados pone de manifiesto la problemática de que los usuarios de las redes sociales crean que leer un tweet de hasta 280 caracteres ya significa estar bien informados. Seleccionar de todo el contenido y el ruido que recibimos en las plataformas digitales aquello que es válido, y dedicarle el tiempo necesario para su comprensión, es lo que convierte a la noticia en rentable desde una perspectiva más cualitativa. Esta tendencia ha sido también citada por otros participantes de nuestro estudio, generándose cierta unanimidad al respecto.

PER/PRE: “Las redes sociales son un pequeño escaparate a través del cual los usuarios pueden profundizar muchísimo informativamente. El problema llega cuando se pretenden informar por tweets. Por un lado, si el usuario sabe filtrar, tiene acceso a muchísima más información que antes de la llegada de las redes sociales. Sin embargo, esto no es obstáculo para que muchísima gente se ‘mal informe’ en base a titulares sesgados o sacados de contexto”.

Puntualizamos que todos los *community managers* entrevistados, aun relatando aspectos que consideran mejorables en su profesión, tienen una postura unánime a la hora de valorar como muy positiva la presencia de los medios de comunicación en las redes sociales, siendo mayoritarios los beneficios que aportan a la sociedad para tenerla informada.

PER/PRE: “Negativa nada, positivo todo, Las redes sociales desde nuestro punto de vista y en general es hacer marca, construyes tu marca a través de las redes sociales, es fundamental esta relación y es muy positiva. No veo ninguna cosa mala ni cuando pasa algún problema de crisis reputacional, es reaccionar allí y sacarlo adelante”.

De los datos obtenidos en la muestra concretamos que las soluciones para estar mejor informados pasan por ampliar la dieta mediática y dedicar más tiempo a informarse antes de dar por segura una noticia recibida en algún dispositivo digital. Contrastar cualquier fuente de información que se recibe es la premisa de la que se parte. La gran cantidad de opciones que ofrece Internet para comprobar la veracidad de un contenido no debe pasar desapercibida para los usuarios, a quienes los *community managers* vinculados al periodismo otorgan la responsabilidad de no dar por hecha una información, eligiendo para ello fuentes que previamente hayan demostrado que ofrecen datos reales.

“En Internet los bulos y la desinformación son permanentes y pueden afectar no solo a las personas sino también a los medios de comunicación”

4.4. La audiencia digital, su relación con el *community manager* en el periodismo y el conflicto como un elemento cotidiano

Encontramos nuevamente unanimidad en las respuestas procedentes principalmente de la pregunta número 12: ‘¿Cómo valoras el comportamiento de los usuarios respecto a tu medio en aspectos como credibilidad, respeto o interés por los contenidos ofrecidos?’ Los profesionales entrevistados, acostumbrados a contestar dudas, agradecer sugerencias o solucionar quejas e incidencias, se enfrentan a actitudes de diversa índole. Las negativas, sin ser claramente mayoritarias, sí que afirman que son más espectaculares y generan la falsa impresión de que todo lo que sucede es malo, pero la valoración general es muy positiva para el periodismo.

> PUB/TV: “Cuando contamos algo de las entrevistas hechas en antena te felicitan, te dan las gracias por dar voz a los temas, pero también es cierto que hemos activado la parte de comentarios en la web y también nos dicen que por qué cubrimos ciertos contenidos. Son pocos, pero a la vez son los mismos que hacen clic. Me escribes para criticarla, pero luego tiene mucha viralidad. Depende de lo que ofrezcas, pero los comentarios que recibimos tienden a ser positivos”.

> PER/PRE: “Pues hay de todo, desde los que te aplauden cada palabra hasta los que critican hasta la última letra. El respeto y la credibilidad se las tienen que ganar los propios medios en base a la calidad de lo que publiquen. Las redes son en cierto modo un escaparate de lo que los usuarios se pueden encontrar en el medio de comunicación”.

La resignación de que una parte de la relación con la audiencia siempre va a ser conflictiva es palpable en las respuestas de los entrevistados. La ausencia de una formación específica para usar las redes sociales se ve como uno de los motivos de que diariamente se produzcan tantas confrontaciones, polémicas e insultos. El hecho de que el aprendizaje se haya realizado de forma autodidacta y por observación no favorece la creación de un ambiente plenamente positivo y constructivo en lo que se refiere a las críticas hacia los medios de comunicación. Reducir al máximo estas situaciones convierte al *community manager* en una figura indispensable para mejorar la reputación online de la entidad.

> PER/TV: “Los beneficios en general son mucho mayores por estar que por no estar. En realidad, ya sabes que siempre se ha dicho que si no estás en redes van a hablar de ti igualmente, mejor que estés y puedas ver si reaccionas o no ante lo que se está diciendo. El riesgo que hay pues como todo, que cuando hablas puedes meter la pata, pero entre eso y quedarse callado lo que hay que hacer es pensar mucho lo que se dice y ya está. No todas las crisis se pueden tener planteadas”.

La escucha, también llamada monitorización, es un tema recurrente entre los entrevistados, que le otorgan parte del éxito de una buena gestión de las redes sociales en el periodismo. De ahí nace la relación con el usuario, de entender cuáles son los temas que le interesan y cuáles pueden generarle problemas a la marca, aunque en ocasiones no por ello debe evitarse su publicación.

> PER/PRE: “La escucha activa es muy importante y hay que dar respuesta. Siempre hay alguno que se te pueda escapar o que pueda quedar satisfecho, pero en general los que atendemos suelen quedar satisfechos. La gente conoce el medio y sabe a qué nos dedicamos”.

Cerramos este apartado con un tema que también es relevante y que está directamente relacionado con la citada escucha y con la carencia de una formación mediática global, y es la de entender que en Internet los bulos y la desinformación son permanentes y pueden afectar no solo a las personas sino también a los medios de comunicación. La figura del *community manager* toma especial importancia en esta labor de vigilancia y de relacionarse con la audiencia de una forma cercana y pedagógica.

> PUB/RAD: “Un mal uso hace daño y los medios hacemos más caso de lo que se pone en redes, un bulo se hace eco en los medios. Pero las redes generan más visibilidad, tienen más alcance para llegar a lugares que de otra manera no podría ser. Hay que contrastar más y el medio tiene esa obligación de que todo sea veraz, y tener cuidado con nuevas técnicas de engaño, porque el medio puede caer ahí”.

Del grueso de respuestas obtenidas y que proceden de la experiencia profesional, categorizamos el comportamiento de los usuarios en cuatro grandes grupos en función de si su actitud hacia el medio y hacia otros usuarios es educado y constructivo (a y b), o si por el contrario recurren a la confrontación y a la crítica que no se basa en la argumentación (c y d):

a) Creadores de debate

Usuarios que al responder al contenido emitido por el medio aportan críticas constructivas y/o un contenido relacionado con el tema protagonista que es un valor añadido a la información, y que de manera natural implica que otros lectores incluyan a continuación sus opiniones.

b) Afines al medio

Usuarios que, sin dedicar mucho espacio a contestar, escriben para agradecer, mostrar su conformidad o hacer una recomendación que complemente el contenido procedente de la noticia o de la opinión del periodista protagonista de la publicación.

c) Beligerantes

Los *community managers* encuentran como una de sus funciones fundamentales controlar las consecuencias derivadas de los ataques que se producen de forma multidireccional, siendo principales aquellos que van contra el periodista, contra el propio medio, contra los personajes protagonistas de la información o contra otros usuarios que están mostrando opiniones divergentes. En este tipo de mensajes no existe ningún interés por parte del emisor por darle el valor añadido que mencionamos en el grupo a (creadores de debate).

d) Difundidores de odio y de contenidos falsos

Más allá de los ataques de aquellos que forman parte del grupo c, hay usuarios que dan un paso más allá y publican mensajes en los que predomina el odio y la búsqueda de desprestigio del oponente. De igual manera, es habitual, a juicio de las valoraciones de los profesionales entrevistados, encontrar mensajes y noticias que buscan la confusión y generar noticias falsas, también llamadas *fake news*. Estar alerta para que estos contenidos no afecten al medio de comunicación, y dar un valor social a sus seguidores de cara a saber qué contenido es el verdadero, son igualmente responsabilidades a las que se enfrentan día a día.

5. Discusión y conclusiones

La formación del *community manager* de medios periodísticos parte de los estudios en Periodismo, Comunicación Audiovisual o Publicidad y RR.PP. (**Mañas-Viniegra**; **Jiménez-Gómez**, 2019; **Silva**-**Robles**, 2016). Sin embargo, los resultados de nuestro estudio trascienden a esa visión y apuntan a que la formación requiere ser ampliada más allá de las titulaciones de grado o licenciatura. La formación de postgrado en diversos ámbitos de la comunicación digital se ve como imperativa debido a la percepción de que existe una carencia de contenidos específicos y actualizados respecto al estado actual de la profesión.

La relación con los usuarios se antoja fundamental, tanto en lo referente a conversar directamente con ellos como a entender cuáles son sus preferencias y la forma más adecuada de crear contenidos de interés. Los *community managers* entrevistados nos hablan de situaciones conflictivas (**Blanco-Navarro**; **Navío-Navarro**, 2019) que hay que resolver rápidamente para evitar daños en la reputación online, como son la desinformación (**Álvarez-Gavilanes**; **Párraga**, 2018), los bulos (**Guallar**; **Codina**; **Freixa**; **Pérez-Montoro**, 2020) o el odio (**Bustos-Martínez** *et al.*, 2019; **Rollert-Liern**, 2020). A lo largo del análisis de las entrevistas, hemos podido corroborar que estas situaciones, si bien están presentes de forma habitual en las redes sociales, no son la tendencia mayoritaria pero sí la más llamativa. No obstante, la visión que se ofrece de las redes sociales es positiva y ante las cuestiones planteadas es habitual que se relaten en primer lugar aspectos que benefician al usuario y a los medios de comunicación.

A las habituales funciones que se le presuponen al *community manager* y que hemos citado anteriormente, añadimos la importancia concedida a la función de análisis de los resultados con el fin de mejorar continuamente la gestión, ajustando los contenidos a lo que realmente requieren tanto desde el medio de comunicación como desde la audiencia (**Moe**; **Schweidel**, 2017; **Hanusch**; **Tandoc Jr.**, 2019). Crear contenidos, responder a los usuarios o elaborar piezas gráficas y audiovisuales eran labores cuya presencia en los datos recabados ya preveíamos. No obstante, tras este estudio debemos mencionar la labor de gestionar campañas de *paid media* en las redes sociales que complementen el alcance orgánico que recibe la marca (**Agnihotri**, 2020), una labor, tradicionalmente asociada a los planificadores de medios de las agencias de publicidad, que según los sujetos de estudio ha sido asimilada por los *community managers*.

Consideramos que los objetivos expuestos en el epígrafe 2 se cumplen. Reafirmamos la tendencia de que en los medios de comunicación se exigen estudios vinculados a las Ciencias de la Información, tanto grados como masters. Las funciones predominantes en los *community managers* están relacionadas con la gestión de los contenidos nacidos del medio, con la dinamización de la comunidad con la que se enfrentan, con las labores de planificación de medios y creativas, y con una fuerte necesidad de analizar los resultados y progresar a la misma velocidad que lo hacen los usuarios.

De las respuestas obtenidas concluimos que los entrevistados son plenamente conscientes de los aspectos más perjudiciales de las redes sociales, pero aun así valoran como muy beneficiosas estas plataformas como un vehículo de información necesario que da a la sociedad las herramientas necesarias para saber lo que está sucediendo en el mundo. La relación con la audiencia es satisfactoria en un espacio digital que sirve de complemento a otros soportes del medio, produciéndose una retroalimentación que genera más contacto. Igualmente se advierte que el periodismo debe proyectar contenidos que tengan un objetivo más allá del resultado a corto plazo en forma de tráfico o de interacciones.

Sugerimos tres futuras líneas de investigación que continúen nuestro estudio desde perspectivas coligadas: el análisis de la gestión del *community manager* en el periodismo de otros países para contrastar si está recibiendo una formación similar y si las funciones y las problemáticas propias de su labor son similares o si por el contrario el factor social y cultural crea más diferencias. El hecho de que remarquemos que el progreso de la tecnología modifica continuamente las competencias que se le exigen al gestor de redes sociales, nos obliga a actualizar en el futuro los datos cualitativos obtenidos. Todo ello para comprobar en qué consiste esa evolución o si por el contrario en algún momento se produce un estancamiento en la dinámica funcional de este actor clave de la comunicación periodística. Y a su vez extraemos una tercera propuesta que es fruto de la propia limitación de esta investigación: la opinión y la visión de los profesionales entrevistados es específica de una parte concreta del periodismo digital actual y no representa a la totalidad de los medios para quienes ejercen su labor. Ampliar esa mirada hacia el resto del espectro que forma esta profesión nos ayudaría a obtener una visión más completa del asunto que hemos abordado.

> Funciones de los *community managers*: gestión de los contenidos del medio, dinamización de la comunidad, planificación de medios y creativas, y análisis de los resultados

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How do legacy and digital media curate coronavirus content. An assessment of newsletters from the USA and four European countries

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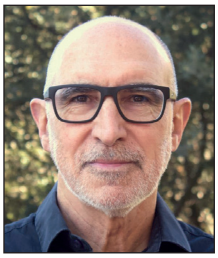

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Abstract

This study focuses on the curation of newsletters specialized in Covid-19 news from the mass media of France, Germany, Spain, the United Kingdom, and the USA. The newsletters of 21 media outlets –15 traditional and six digital natives– were studied during the peaks of the pandemic in April and November 2020. The study follows an evaluative method of curation quality, based on the analysis of the following parameters: number of curated contents, time range, origin, sources –according to organization type and morphology–, authorship, sense-making techniques, and hyperlink informational function. The results identify the main characteristics of news curation in these newsletters and their differences from general newsletters, as well as the sources used, and also make it possible to establish curation quality standings and to identify differences between countries and among legacy and pure digital news outlets.

Keywords

Newsletters; Digital journalism; Digital media; News curation; Content curation; Information sources; Covid-19; Pandemics.

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1. Introduction

The Covid-19 pandemic has had a significant impact on the media, both in the news consumption habits of audiences, and in the organization of the media's professional routines and the type of information they offer to their readers.

News consumption increased considerably in 2020, particularly during the first months of the year. The public turned to the media, particularly traditional media, more than they had so before, given the need for up-to-date and more reliable information than that available from other sources such as social media. This took place against a background of uncertainty typical of a situation of a health crisis that was also characterized by a proliferation of misinformation (**Casero-Ripollés**, 2020; **Nielsen** *et al.*, 2020; **Rosenberg**; **Syed**; **Rezaie**, 2020).

As a result, during the pandemic, the media encouraged remote work and other changes in newsrooms, and there emerged, with greater or lesser success, several news products addressed to meeting the specific news needs of their audiences in times of pandemic (**Newman**, 2021; **Gupta**, 2021). One example of this approach to the new "user-centric" news product that emerged during the pandemic is the newsletters that specialize specifically in coronavirus news. These were launched by different media worldwide against the background of health crisis and information overload (**Silva-Rodríguez**, 2021) and are the subject of this study.

Although a long-standing service of the digital news media, newsletters have revived and are experiencing a period of great expansion, as shown in recent studies (**Newman** *et al*., 2019; **Newman** *et al*., 2020). The last few years have seen a clear surge of the interest of readers in electronic newsletters, while email continues to play a major role in people's news habits (**Fagerlund**, 2016; **Newman**, 2020). The validity and topicality of newsletters are such that they have even been described "as an icon of a new way of conceiving and 'doing' the media today" (**Santos**; **Peixinho**, 2017).

Some keys to this success may lie in the appreciation now felt by audiences for "finite editions" (**Suárez**, 2020), in this era when digital newspapers and the timelines of social media such as Twitter are seen as a continuous and interminable source of news (*The New York Times*, 2019). Other reasons could be their ability to channel communication between subscribers and authors (**Isaac**, 2019; **Santos-Silva**; **Granado**, 2019), and to regularly offer a selection of valuable content from the available information circulating on the Internet, thus making them a very appropriate channel for news curation (**Rojas-Torrijos**; **González-Alba**, 2018).

Thorson and **Wells** (2015, p. 31) define curators as "active selectors and shapers of content working under conditions of content abundance", with the task of receiving, filtering, reframing, and remixing messages. These authors propose a framework that includes Journalistic, Social, Personal, Strategic, and Algorithmic curation, in which the news flows are curated respectively by media, social media, individuals, strategic actors –such as politicians, corporations, governments, and interest groups– and computer algorithms.

Our research fits in the first one of these five categories, journalism and news media. In this context, **Guallar** and **Codina** (2018, p. 783) define journalistic content curation as:

> "a complex set of activities that include: 1) search and monitoring, 2) selection, 3) analysis and verification, 4) management and publishing, and 5) characterization or sense-making of the information published online. This involves the 6) dissemination of such products through digital platforms".

This research is focused on how news is being curated in this new "iconic" product of current journalism while viewing curation as a significant and essential element of most of the journalistic newsletters currently being produced. It can, consequently, be classed along the lines of the media's own line of research on news curation (**Cui**; **Liu**, 2017; **Guallar**; **Codina**, 2018), and not of the news curated by the public on their social media networks (**Bruns**, 2018; **Masip**; **Ruiz-Caballero**; **Suau**, 2019).

As yet, however, specific research on newsletters and their prominent presence in current digital journalism has not been very extensive. Notwithstanding, some studies in recent years on digital news media newsletters can be cited. These include the research by **McClaran** (2017), **Santos** and **Peixinho** (2017), **Rojas-Torrijos** and **González-Alba** (2018), **Santos-Silva** and **Granado** (2019), **Guallar** *et al.*, (2021a) and **Silva-Rodríguez** (2021), to which this current study may also be added.

The goal of this research is therefore to analyse the use of news curation by new newsletters specializing in Covid-19 that have been introduced in the media of several countries during the pandemic.

This objective yielded the following research questions:

> RQ1: What are the main characteristics of the news curation in Covid-19 newsletters of the news media of 5 countries (France, Germany, Spain, United Kingdom, and the United States of America).
>
> RQ2: What are, considering their curation quality, the top specialized Covid-19 newsletters that could serve as benchmarks for other newsletters?
>
> RQ3: What information sources are curated by the coronavirus newsletters?
>
> RQ4: Are there any differences in newsletter news curation among countries and among news media types (legacy or pure digital)?

2. Method

The research entailed descriptive and evaluative methodologies that include expert analysis and content analysis techniques (**Strauss**; **Corbin**, 1990; **Creswell**, 2009; **Morales-Vargas**; **Pedraza-Jiménez**; **Codina**, 2020). The CAS (Curation Analysis System), described in **Guallar** *et al.*, (2021b) and used in other research (**Guallar** *et al.*, 2021a) was followed. This method uses an analysis system based on parameters and indicators that are divided into two major dimensions: Content and Curation. Table 1 shows, for each dimension, the parameters observed and the indicators for evaluating them. A binary (0-1) indicator scoring system was established to evaluate a characteristic's absence (0) or presence (1). Only in the Quantity indicator, of the parameter "Number of contents", was scoring multiple (0-3) so that characteristic could be assessed according to the following scale: negative (0); average (1); positive (2); very positive (3). In this methodology, the quality criterion used when assessing newsletters curation is based on the number of indicators present in any given parameter: for instance, when assessing the sources according to organization type, a newsletter will have a score between 0 and 4 according to the presence of any of these four different sources: official sources, corporate sources, media, and citizens. [1]

Table 1. Dimensions, parameters, and indicators of coronavirus newsletters

Parameters	Indicators
Dimension A. Content	
A1: Number of contents	Quantity
A2: Time range	Hindsight or non-time specific information Recent information Current information Real-time information
A3: Origin	Own content External content
A4: Source according to organization type	Official sources Corporate sources Media Citizens
A5: Source according to morphology	Websites Blogs Social media Secondary source
Dimension B. Curation	
B1: Authorship	Authorship
B2: Sense-making technique	Summarize Comment Quote Storyboarding
B3: Link function	Unmodified Describe Contextualize Interpret Cite source Cite author Call to action

The analysis sample was drawn up by selecting the newsletters monitoring the Covid-19 crisis offered to readers by the main news media of the five countries observed: France, Germany, Spain, the United Kingdom, and the United States of America. These are some of the world's richest and most powerful countries: four of them, all except Spain, belong to the G7 (Canada, Japan, and Italy are the three other members of the G7). All five feature among the world's richest countries and in GDP absolute values they hold the following positions: the United States, 1; Germany, 4; the United Kingdom, 5; France, 7; and Spain, 14 (*International Monetary Fund*, 2021). They were also some of the countries hardest hit by the coronavirus crisis in 2020. According to the *Johns Hopkins University* database, as of June 2021, all five were among the world's top twelve countries in terms of absolute numbers of cases and among the top fourteen insofar as the death toll is concerned: The United States was in the first position for both parameters; France was fourth and ninth, the United Kingdom seventh for both, Spain eleventh and fourteenth, and Germany twelfth and eleventh, respectively in all cases (*Johns Hopkins University*, 2021). All five countries, moreover, have powerful media with considerable influence over world public opinion that fully represent the three major media system models established by Hallin and Mancini: Spain and France follow the Mediterranean or Polarized Pluralist model, Germany the North European or Democratic Corporatist model, and the United Kingdom and the United States the Atlantic or Liberal model (**Hallin**; **Mancini**, 2004).

Table 2. Media studied

Country	Legacy media	Pure digital
France	*Le Figaro* *Le Parisien*	
Germany	*Süddeutsche Zeitung* *Frankfurter Allgemeine Zeitung* *Die Welt* *Berliner Zeitung*	
Spain	*El País* *El Mundo* *ABC*	*elDiario.es* *Nació Digital* *El Confidencial*
United Kingdom	*The Daily Telegraph* *The Guardian* *The Times*	
United States	*The New York Times* *The Washington Post* *The Boston Globe*	*Politico* *Vox* *BuzzFeed*

When the authors began this research, their intention was to study, for each country, the newsletters of the three main traditional newspapers (legacy media) and of the three main native digital newspapers (pure digital). They, therefore, referred to different studies of audiences in the countries observed (**Thomaß**; **Horz**, n.d.; *AIMC*, 2020; *OJD Interactiva*, 2020; *Pew Research Center*, 2019; *ACPM*, 2020; **Newman** *et al.*, 2020; **Mayhew**, 2020; **Tobitt**, 2020). However, the scrutinization of traditional and digital media showed that not all of them offered their readers newsletters that specialized in monitoring the pandemic. For example, a newspaper as consolidated and influential as France's *Le Monde* did not publish a specific newsletter about the crisis. The authors, therefore, decided to study those media that were indeed issuing a newsletter about coronavirus, regardless of whether these had the largest audiences, the deepest tradition or influence, or were traditional or digital. The final selection is shown in Table 2.

> The newsletter is a product with its own personality that offers readers a more personalized experience

The newsletters of 21 media from the 5 selected countries were therefore studied. Fifteen of these are published by traditional media and six by digital natives.

The study focused on the two peak moments in which the pandemic most affected Europe and the United States in 2020: in April, the peak of the first wave, and in November, in the second. One newsletter was observed every week (not all media offered daily newsletters and periodicity fluctuated greatly). The newsletter issued on Fridays (or the day closest to Friday) was chosen. In some cases, media that published a newsletter in April stopped doing so when the first wave subsided and did not republish from November onwards (*Politico* and *BuzzFeed* in the United States, *El País* in Spain, *Die Welt* in Germany, and *The Guardian* in the United Kingdom). *elDiario.es*, meanwhile, began issuing their newsletter on a weekly basis in November and published it on Sundays; 5 newsletters were studied. A total of 149 newsletters were therefore analysed: 84 from April and from 21 media, and 65 from November and from 16 media.

To validate the reliability between the researchers, previous to starting the analysis all observers were first trained to conduct newsletter codification according to the literature (**Guallar** *et al.*, 2021b). After the analysis, each of the three observers codified a sample of newsletters individually and an intercoder reliability test was performed using Krippendorff Alpha methodology (**Krippendorff**; 2004). The results were α=0.791, α=0.8106, and α=0.885 respectively, indicating a high degree of consistency between observers..

3. Results

3.1. General aspects

Table 3 shows some general aspects of the newsletters analysed. Note that in every case but one, the titles of the newsletters contain the word "coronavirus", which is therefore considered the main identifying term of the content, and that newsletter issue frequency is mainly daily, with a few exceptions of twice a day, three times a week and weekly.

3.2. Analysis of the Content dimension

The results obtained following the CAS method are presented below and the data set may be consulted at:
https://doi.org/10.6084/m9.figshare.16451730.v1

The results start with the parameters of the Content dimension.

3.2.1. Quantity of curated content

This research found that the newsletters evaluated that publish the most curated contents include around 30 informative items. Using this value as a benchmark, this indicator was evaluated using the following scoring system: number of contents curated 1-10: one point; 11-20 contents: 2 points; more than 20: 3 points.

In this indicator, in which no significant differences were observed between the two periods studied, six newsletters obtained the top score of 3 (38% of the total), closely followed by four more (with scores above 2.6). Slightly fewer than half of the newsletters analysed, therefore, lie in the upper range in terms of numbers of curated contents. This, together with the fact that only two newsletters scored lower than 1, and that a large group of nine obtained scores of between 1 and 2, shows that the newsletters analysed were by and large well curated.

Specifically, the newsletters with the most curated content and the highest score (3) were published by: *The Boston Globe*, *elDiario.es*, *Frankfurter Allgemeine Zeitung*, *Le Figaro*, *Politico*, and *Süddeutsche Zeitung*, closely followed by *The Washington Post*, *Le Parisien*, *The Guardian* and *The New York Times*. *The Boston Globe* published the highest number of contents of all the newsletters –between 43 and 59, in April–, while the figures for the two French newspapers, *Le Figaro* and *Le Parisien*, are also high (from 33 to 47 contents per newsletter).

3.2.2. Time range of curated contents

Four criteria are considered in this parameter:

- Hindsight or non-time specific information: published in previous months or years, or when the content is non-time specific.
- Recent information: from the last few days and weeks.
- Current information: from the last 24 hours.
- Real-time information: live or constantly updated.

Table 3. General aspects of the coronavirus newsletters analysed

Country	Media	Title 1st wave	Author 1st wave	Periodicity 1st wave	Title 2nd wave	Author 2nd wave	Periodicity 2nd wave
France	*Le Figaro*	*Coronavirus: ce qu'il faut savoir aujourd'hui*	Roland Gauron	Daily (except Saturday)	*Coronavirus: ce qu'il faut savoir*	Camille Lestienne	Daily (except Saturday)
	Le Parisien	*Coronavirus: l'essentiel à savoir*	*Le Parisien*	Daily	*Coronavirus: l'essentiel à savoir*	Laurence Lefour / Joffrey Vovos	Daily
Germany	*Berliner Zeitung*	*Das Corona Update*	Julia Grass (2) / Robert John (2)	Daily	*Das Corona Update*	Robert John (3) / Marcus Weingärtner	Daily
	Die Welt	*Das 18-Uhr-Update zur Corona-Krise*	Diana Pieper / Curd Wunderlich / Jean Mikhail / Teresa Pfützner	3 times per week	-	-	-
	Frankfurter Allgemeine Zeitung	*F.A.Z. Newsletter Coronavirus*	*Frankfurter Allgemeine Zeitung*	Daily	*F.A.Z. Newsletter Coronavirus*	*Frankfurter Allgemeine Zeitung*	Daily
	Süddeutsche Zeitung	*Themenspezial Coronavirus*	Xaver Bitz / Matthias Fiedler (2) / Jana Anzlinger	Twice a day	*Themenspezial Coronavirus*	Juri Auel / Xaver Bitz (2) / Matthias Fiedler	Twice daily
Spain	*ABC*	*Crisis del coronavirus*	*ABC*	Daily	*Coronavirus*	*ABC*	Daily
	El Confidencial	*Crisis Covid-19*	*El Confidencial*	Daily	*Crisis Covid-19*	*El Confidencial*	Daily
	elDiario.es	*Coronavirus. Lo que debes saber hoy*	María Ramírez / Belén Remacha	Daily	*Coronavirus. Lo que debes saber hoy*	Belén Remacha	Weekly
	El Mundo	*Lo último sobre el coronavirus*	*El Mundo*	Daily	*Lo último sobre el coronavirus*	*El Mundo*	Daily
	El País	*Qué sabemos del coronavirus hoy*	Virginia López Enano / Clemente Álvarez / Emilio Sánchez Hidalgo	Daily	-	-	-
	Nació Digital	*Coronavirus al dia*	Roger Tugas	Daily	*Coronavirus al dia*	*Nació Digital*	Daily
UK	*The Daily Telegraph*	*Coronavirus daily*	*Global Health Security Team*	Daily	*Coronavirus briefing*	*Global Health Security Team*	Daily
	The Guardian	*Coronavirus: the week explained*	Nicola Davis / Ian Sample (2) / Hannah Devlin	Weekly	-	-	-
	The Times	*Coronavirus update*	*The Times*	Daily		The Times	
USA	*The Boston Globe*	*Coronavirus now*	Felicia Gans	Daily	*Coronavirus now*	Felicia Gans / Lauren Booker	Daily
	BuzzFeed	*Outbreak Today*	*BuzzFeed*	Daily from Monday to Friday	-	-	-
	Politico	*Politico Nightly. Coronavirus special edition*	Renuka Rayasam	Daily from Monday to Friday	-	-	-
	The New York Times	*Coronavirus Briefing*	Patrick J. Lyons / Lara Takenaga / Jonathan Wolfe / Carole Landry	Daily from Monday to Friday	*Coronavirus Briefing*	Jonathan Wolfe / Amelia Nierenberg / Adam Pasick	Daily from Monday to Friday
	The Washington Post	*Coronavirus Updates*	Avi Selk	Daily	*Coronavirus Updates*	Avi Selk	Daily
	Vox	*VoxCare*	Dylan Scott	3 times a week	*VoxCare*	Dylan Scott	3 times a week

Seven newsletters scored very highly (from 3.1 to 4 points) in several time ranges. The top score (4) was obtained by only one newsletter, Spain's *elDiario.es*, during the first wave. In the second wave, its score fell to 3.2, thus yielding an overall average of 3.6, which was also the highest for all the newsletters in this study. Next came five of the United States' newsletters of the six studied (*The Boston Globe*, *BuzzFeed*, *The New York Times*, *Politico*, *The Washington Post*) and another Spanish newspaper, *Nació Digital*. The four possible time ranges were used, to a greater or lesser extent, in all these media, thus meaning that the curation quality offered for this parameter was high. In the lower positions in the time range parameter, five newsletters made use of up to three ranges, six newsletters of up to two, while there were three more newsletters that used just one time range. The time range used in all cases by all the newsletters is Current information (published in the last 24 hours), combined, depending on the case, with information from one or more than one time range, including information updated in real-time.

3.2.3. Origin of the curated content

The study analysed whether the curated contents were produced by the media outlet itself or were external. Results show that eight media outlets always incorporate both types of content in all their coronavirus newsletters. These media are the United States' newspapers *BuzzFeed*, *The Boston Globe*, *The New York Times*, and *Politico*, the French publications *Le Figaro* and *Le Parisien*, *The Guardian* from the United Kingdom, and *elDiario.es* from Spain. In the second wave, the US news outlet *Vox* also incorporated them both, even though it did not do so for all its newsletters in the first wave, because, paradoxically, in one newsletter (from 10 April) it did not include any of its own contents. Likewise, four other newspapers sometimes (but not always) used external content together with their own. It should be clarified that in many of the cases of combining in-house contents with external material, there is less of the latter, as will be observed in greater detail below in section Analysis of external sources. Lastly, eight media exclusively used content published by their own outlet and none from external sources, an aspect that might suggest a low level of curation quality. These newsletters, which may be considered to fall short in this aspect, are the German *Berliner Zeitung* and *Frankfurter Allgemeine Zeitung*, the British *Daily Telegraph* and *The Times*, and the Spanish *ABC*, *El Confidencial*, *El Mundo* and *El País*.


Chers lecteurs, voici ce qu'il faut savoir ce lundi 20 avril sur le coronavirus.

Version en ligne

LE FIGARO

CORONAVIRUS

Ce qu'il faut savoir aujourd'hui

Bonsoir,

Aujourd'hui, en ce 35e jour de confinement, la barre symbolique des **20.000 morts** a été dépassée tandis que la lutte contre le coronavirus se trouve encore trop souvent entravée par les **carcans réglementaires**. Les **masques**, probablement obligatoires dans les transports après le 11 mai, font encore défaut. Dans les entreprises, afin de respecter la distanciation sociale, le **télétravail** devra être poursuivi. Quant aux épargnants, ils révisent leur **stratégie d'investissement**.

Bonne lecture,

Camille Lestienne, journaliste au *Figaro*

1.Où en est l'épidémie ?

L'épidémie due au coronavirus a dépassé le «*cap symbolique et particulièrement douloureux*» des 20.000 décès, a annoncé Jérôme Salomon, le directeur général de la Santé. Avec 547 décès supplémentaires, le bilan s'établit précisément à 20.265 morts en France depuis le 1er mars. Dans le détail, on comptabilise 12.513 décès à l'hôpital et 7752 dans les Ehpad et autres établissements médico-sociaux.

Le Figaro newsletter

3.2.4. Information sources according to organization type

Four categories were considered: official sources (from public administration bodies), corporate sources (from companies, associations, and other private organizations), the media, and private citizens. One newspaper, the Spanish *elDiario.es*, obtained the top score for this indicator, which shows that in all its newsletters, it constantly used the four types of sources. In second place was *Politico*, from the United States, which always used three types of sources. Following closely behind were *Vox*, *BuzzFeed*, and *The Guardian*, which used (although not always) three types of sources, and then came *Le Figaro* and *Le Parisien*, which used two kinds of sources. There follows a group of five newspapers that used two sources, albeit not in all their newsletters and to different degrees. Last comes a final group of eight media that used only one single type of source. Here, the only source consulted was the media, which is the only type always used in all the newsletters. The other three types of sources are fairly evenly distributed, generally at low levels, in some newsletters.

3.2.5. Information sources according to their morphology

Four types of sources were considered: web pages, blogs, social media and secondary sources. The highest scores, in the best cases, were between 2 and 3 and obtained by the newsletters of *elDiario.es* and *Politico* (only *elDiario.es* scored 3 points in the first wave) and by *Vox* and *The Washington Post* in the first wave, although their scores fell ostensibly in the second. The newsletters of the outlets *ABC*, *BuzzFeed*, *El Mundo*, *Le Figaro*, and *The Daily Telegraph* always used two types of sources. The most frequently used types of sources, meanwhile, were web pages, in all the newsletters. In some newsletters, these are combined with social media and blogs, while there were very few secondary sources.

3.3. Analysis of the Curation dimension

3.3.1. Authorship

Most of the newsletters analysed are authored by their own editors, which may mean one person or several people. This is generally associated with curation quality, which is also apparent in the other parameters. The list of authors is shown in Table 3. In one case, the *Global Health Security Team* of *The Daily Telegraph*, authorship is identified with a team, and in six newspapers from the

> The presence of identified authorship is significant in coronavirus newsletters published by the media outlets analyzed

sample analysed no personalized authorship was given but was rather ascribed to the media outlet in general. This generally coincides with newsletters featuring less journalistic input, except for *BuzzFeed* and *Le Parisien* in the first wave.

Frankfurter Allgemeine newsletter

3.3.2. Sense-making techniques

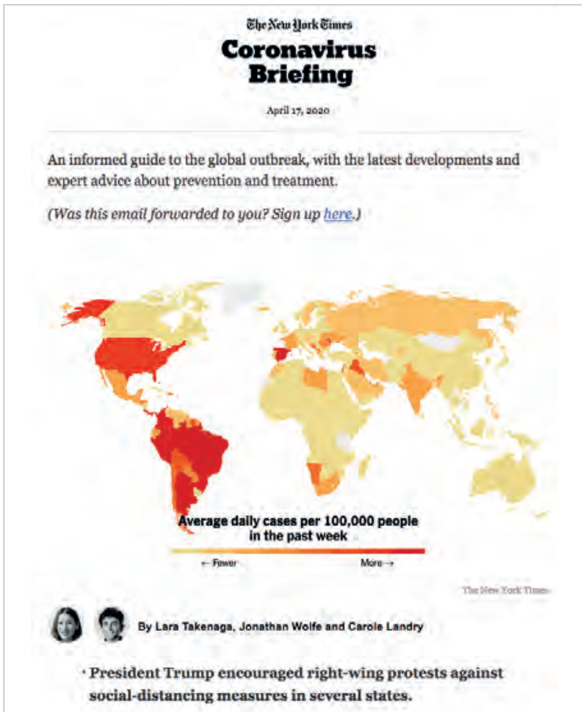
This section looks at the techniques for adding value to curation (known in the content curation literature as sense-making; for example, **Deshpande**; 2013; **Guallar** *et al.*, 2021b). It considers the following techniques: summarize (informative technique); comment (opinion or interpretive technique); quote (based on giving a verbatim quote to the original content); and storyboarding (which consists of bringing together items from different formats through narration).

Four media outlets scored well in sense-making and obtained 3 out of 4 possible points for their newsletters: only one outlet, *The Boston Globe*, obtained this score in the two waves studied, while the others obtained it in one (*BuzzFeed* and *The Washington Post*, in April, and *elDiario.es*, in November). These media, together with *Politico*, are the only outlets that used (in all or several of their newsletters) more than two sense-making techniques. At the other extreme, three media, *ABC*, *El Confidencial*, and *El Mundo*, from Spain, use no technique and publish newsletters with fully automated content without adding further value to the headline and the link.

The most commonly used technique in all the newsletters except for the three that use none is Summarize, which is therefore confirmed as the essential technique for journalistic curation in newsletters. The other three techniques also appear in the newsletters analysed, with variations depending on the newsletter. Comment is used widely in *elDiario.es*, *Nació Digital*, *BuzzFeed*, *Politico*, and *The New York Times*, which are newsletters with a more personal editorial approach. Quote is apparent in *Vox*, *The Washington Post*, *The Boston Globe*, and *Le Figaro*; while Storyboarding is used in all of the following: *elDiario.es*, *Nació Digital*, *The Boston Globe*, *BuzzFeed*, *Frankfurter Algemeine*, *Süddeutsche Zeitung*, and *The Guardian*.

3.3.3. Link function

This section looks at the journalistic or informative function of each hyperlink or link to curated content within the newsletter. Based on **Cui** and **Liu** (2017) and **Guallar** *et al*. (2021b), it distinguishes the following categories: Unmodified; Describe or Sourcing curation (the hyperlink describes or summarizes the content); Contextualizing curation (the link is used to contextualize or document information); Interpreting curation (the text of the link is the author's interpretation or opinion); Cite source; Cite author; and Call to action.



The New York Times newsletter

The four top-scoring newsletters in this section are *elDiario.es*, *Politico*, *El País*, and *The Boston Globe*, each with scores of over 4 out of 7. They are closely followed by *BuzzFeed*, *Le Figaro*, *Nació Digital*, and *The New York Times*. The most widespread use of links involves Describing or Sourcing curation, in all the newsletters except for the three Spanish outlets with automated content. There is also some diversity in the use of the links. The next most frequent are Unmodified, Cite the source, and Cite the author. The Interpreting curation option, meanwhile, which indicates more personal curation, in conjunction with the commenting technique, also appears a lot in *Politico* and *Nació Digital* (only in the first wave) and in *The New York Times*.

3.4. Analysis of external sources

In answer to RQ3, the external sources used in the newsletters were studied in detail using in-depth qualitative analysis. Our analysis is grouped according to types of media (legacy and pure digital) and within these, by country, with the observation of different trends for each category.

> As regards the dilemma between producing edited or automated newsletters, the former prevails

3.4.1. Legacy media

In all cases and in all countries, except for *The Guardian* in the UK and *The New York Times*, legacy media offer practically no content that is not produced in-house. These two outlets nonetheless offer a low proportion of external content, in comparison with links to their own content. *The Guardian*, which only offered its readers newsletters in the first wave, published 13 links to external content (15% of the total). This curated content links mainly to expert medical sources, specialized scientific journals, and institutions such as the WHO, or the websites of health authorities in the United States or the United Kingdom. There were only two links to the media (*The New York Times* and *Reuters* news agency).

The New York Times, for its part, offered 22 links to external content in the two periods studied (11% of the total). Most of these were to other media, which even included competitors (such as *The Wall Street Journal*, *The Washington Post*, or the *Reuters* and *AP* news agencies). There was also a not very significant number of links to specialized medical sources and official organizations. Both these newspapers always link to other web pages and not to secondary sources, blogs, or social media (except just once in the case of *The New York Times*).

Among the Spanish legacy media analysed, not a single outlet offered external content. In each newsletter, both *El Mundo* and *ABC* published a link to their *Twitter* and *Facebook* accounts and *ABC* also included a link to *Instagram*. *El País* (the only outlet to publish the newsletter solely in April) included only one link to *YouTube* and two to *Spotify* and no more.

The only two French media analysed included very few links to external content (there were three in *Le Figaro* in all its newsletters, and two in *Le Parisien* in the first wave and one in the second). These were to official public service websites that offer information on the forms required to avoid confinement or information on where to report cases of abuse. They did not link to other media or to blogs or social media accounts.

The German media also included virtually no external links. There were only two (*Die Welt* linked to *The New York Times* once, and once to the German radio station *RBB24*) in the four media analysed and in both periods. The *Süddeutsche Zeitung* included two links to the digital formats of its own *Jeztz* group.

3.4.2. Pure digital

In pure digital media (only present in the USA and Spain) a very different trend and one with constant nuances was observed. In the United States' media, the number of external content in pure digital media is much higher than in legacy media. *Politico* includes 25% external content in its newsletters while *BuzzFeed* and *Vox* notably offer much more external curated than in-house produced content: *Vox* publishes 60% of external and 40% of in-house produced content, while the figures for *BuzzFeed* are 62% and 38%.


POLITICO NIGHTLY
Coronavirus Special Edition

BY SUDEEP REDDY AND RENUKA RAYASAM

Presented by PhRMA

Matt Wuerker/POLITICO

RUNNING IN PLACE — On Sunday, President Donald Trump propelled the #FireFauci movement. On Monday, he threatened to seize power from the states. On Tuesday, he unveiled a new advisory council with little to show for it. On Wednesday, he threatened to seize power from Congress. On Thursday, he kicked power back to the states. And today, he encouraged protesters to agitate for their states to open up — contrary to his own guidelines released a day earlier.

There was a new White House message every day this week, but also one unchanging worry throughout the noise: how and when will the

Politico newsletter

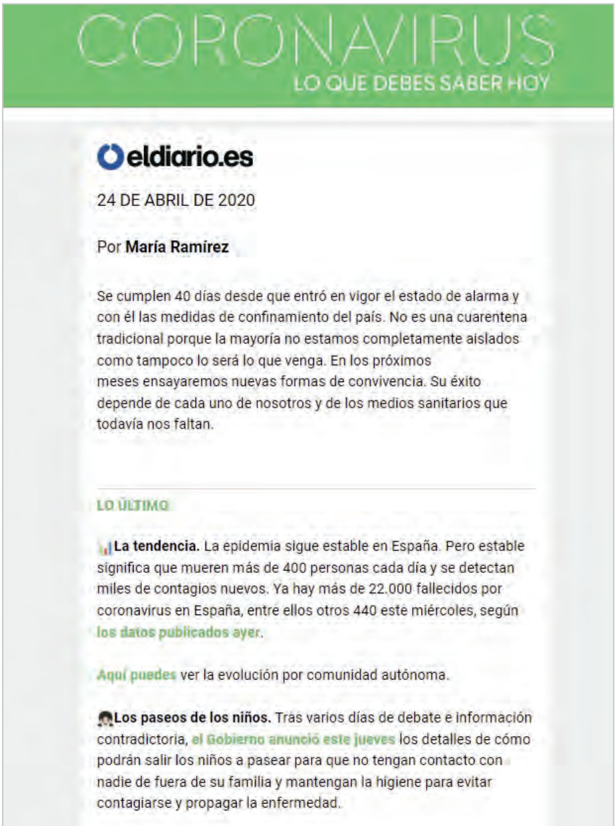
A similar phenomenon occurred in Spain, albeit only in *elDiario.es*. *El Confidencial* did not publish a single external item and *Nació Digital* published only two in the two waves. *ElDiario.es*, however, published a lot of external content: a total of 140 of the 357 links in both periods, which accounts for over 39% overall; and in the first wave, 53% of the links (96 of 181) were to external content.

Although both the United States digital natives and *elDiario.es* from Spain linked mainly to the media, this aspect requires further and more detailed exploration. The 96 external links in *elDiario.es* in the first wave were to a broad range of contents and although links were mainly to the media, and even to competitors (such as newspapers *El País*, *El Mundo*, and *La Vanguardia*), to international media (*BBC*, *The Washington Post* and *La Repubblica*), and to news agencies and to international (*WHO*, *UN*) and medical (*Spanish Ministry of Health* or *Harvard Medical School*) organizations, there were also some links to social media sites such as *Facebook*, *Twitter*, *Instagram*, and *TikTok*. In the second wave, *elDiario.es* offered fewer external links (44), albeit of the same diverse nature.

In the United States, *BuzzFeed* linked mainly to external media (newspapers, television networks, agencies, and local media, which are always from the United States). Only 5 of the 40 links to external content were to social media –specifically *Twitter*– while the remainder was to the media. *Vox*, on the other hand, provided a much more varied external content. Its monothematic newsletters provided links to specific contents that specialize in the specific matter at hand, and were to media, official sources, corporate sources, medical websites, databases, and some (few) social media accounts, specifically *Twitter*.

3.5. Newsletter standings

Table 4 shows the final score of the newsletters yielded by our analysis, based on the *Curation Analysis System* (CAS) (**Guallar** *et al.*, 2021b). In both waves, the Spanish newspaper *elDiario.es* clearly obtained the highest score. Following closely behind, in the first wave, were the newspapers *Politico*, *The Washington Post*, *The New York Times*, *The Boston Globe*, and *BuzzFeed* from the United States, and *Le Figaro* from France, and in the second wave, only *The Boston Globe*. This group of media, the large majority of which are US newspapers, plus a leading Spanish and another French news outlet, can thus be considered the news media that offer the highest quality newsletters insofar as coronavirus news curation is concerned.


CORONAVIRUS
LO QUE DEBES SABER HOY

elDiario.es

24 DE ABRIL DE 2020

Por **María Ramírez**

Se cumplen 40 días desde que entró en vigor el estado de alarma y con él las medidas de confinamiento del país. No es una cuarentena tradicional porque la mayoría no estamos completamente aislados como tampoco lo será lo que venga. En los próximos meses ensayaremos nuevas formas de convivencia. Su éxito depende de cada uno de nosotros y de los medios sanitarios que todavía nos faltan.

LO ÚLTIMO

La tendencia. La epidemia sigue estable en España. Pero estable significa que mueren más de 400 personas cada día y se detectan miles de contagios nuevos. Ya hay más de 22.000 fallecidos por coronavirus en España, entre ellos otros 440 este miércoles, según los datos publicados ayer.

Aquí puedes ver la evolución por comunidad autónoma.

Los paseos de los niños. Tras varios días de debate e información contradictoria, el Gobierno anunció este jueves los detalles de cómo podrán salir los niños a pasear para que no tengan contacto con nadie de fuera de su familia y mantengan la higiene para evitar contagiarse y propagar la enfermedad.

elDiario.es newsletter

Table 4. Newsletter standings by the quality of their news curation

Standing April 2020			Standing November 2020		
Media outlet	Country	Score	Media outlet	Country	Score
elDiario.es	Spain	24.25	*elDiario.es*	Spain	24.00
Politico	USA	21.00	*The Boston Globe*	USA	18.75
Le Figaro	France	19.75	*Le Figaro*	France	17.00
The Washington Post	USA	19.00	*Le Parisien*	France	16.75
The New York Times	USA	19.00	*Vox*	USA	16.50
The Boston Globe	USA	18.75	*The New York Times*	USA	16.25
BuzzFeed	USA	18.50	*The Washington Post*	USA	15.75
The Guardian	UK	16.50	*Süddesutsche Zeitung*	Germany	14.00
Vox	USA	15.75	*Nació Digital*	Spain	11.50
Nació Digital	Spain	15.50	*Frankfurter Allg. Zeitung*	Germany	11.50
El País	Spain	15.00	*Berliner Zeitung*	Germany	10.50
Le Parisien	France	14.20	*ABC*	Spain	10.00
Süddesutsche Zeitung	Germany	13.25	*The Daily Telegraph*	UK	9.50
Frankfurter Allg. Zeitung	Germany	10.75	*El Mundo*	Spain	8.00
ABC	Spain	10.00	*The Times*	UK	7.75
El Mundo	Spain	10.00	*El Confidencial*	Spain	6.00
Die Welt	Germany	10.00	*El País*	Spain	
Berliner Zeitung	Germany	9.75	*Politico*	USA	
The Daily Telegraph	UK	9.50	*BuzzFeed*	USA	
The Times	UK	8.75	*Die Welt*	Germany	
El Confidencial	Spain	6.00	*The Guardian*	UK	

Note that the scores were higher overall in the first (April 2020) than in the second wave (November 2020), with a few exceptions such as the French newspaper *Le Parisien*, the score of which improved in its November newsletter, and that in the second wave there were five media outlets that did not publish newsletters.

The first group of newspapers considered to offer the best news curation is followed by a second group of media in a halfway position in terms of quality of news curation: *The Guardian* from the UK and the Spanish *El País* (only in the first wave), *Vox* from the United States, the Spanish *Nació Digital* and the German *Süddesutsche Zeitung*. At the foot of the table, there are newspapers from all the countries studied (except the USA), the curation quality of which is poor and based exclusively or mainly on a list of links with little or no journalistic contribution.

The Guardian newsletter

4. Discussion and conclusions

In answer to RQ1, the research has made it possible to identify the characteristics of news curation in the coronavirus newsletters of newspapers in the 5 countries studied (France, Germany, Spain, the United Kingdom, and the United States of America).

Most newsletters included from 11 to 30 curated contents per newsletter. In terms of time range, as expected, current information published over the last 24 hours predominated. This was sometimes combined with information from other time ranges, which indicates greater use of non-time specific information (usually regarding health advice) in coronavirus newsletters than in general information newsletters (**Guallar** *et al.*, 2021a). As regards the sources of information, there are not only differences among newsletters that curate external sources on a supplementary basis to their own, and those that never link to information that is not their own, but also the variety of types of sources used in coronavirus newsletters is larger than in general newsletters, although media sources continue to predominate (**Rojas-Torrijos**; **González-Alba**, 2018).

The presence of identified authorships is also significant. This may be due both to an evolutionary trend in newsletters towards the greater presence of signature newsletters and to the fact that they are specialized information services (**Silva-Rodríguez**, 2021). The use of links for information purposes is, therefore, quite varied even with the predominance of sourcing curation as in other studies (**Cui**; **Liu**, 2017); while the most commonly used sense-making technique is summarize, although other techniques such as comment, quote, and storyboarding are slightly more common in coronavirus than in general newsletters. All this suggests that the heralded potential of newsletters as a channel for exploiting and experimenting in content curation (**Jack**, 2016) is unfolding and that, as regards the dilemma between producing edited or automated newsletters (**Fagerlund**, 2016), the former are starting to prevail as part of a positive trend that points to greater use of intellectual or author journalistic curation (**Guallar** *et al.*, 2021a; **Silva-Rodríguez**, 2021).

It has also been observed that curation in newsletters that specialize in coronavirus shares most of the characteristics observed in previous studies on general newsletters (**Rojas-Torrijos**; **González-Alba**, 2018; **Guallar** *et al.*, 2021a), although there has been a slight improvement in all the indicators observed in comparison with general newsletters: there is a greater presence of authorship, time ranges supplementary to current information, a greater variety of sources and a broader range of sense-making techniques and not just summarize. Some nuances were observed in coronavirus newsletters that suggest slightly higher quality curation than in general information newsletters, in most of the media analysed. This echoes the results published by **Silva-Rodríguez** (2021).

In answer to RQ2, it was possible to rank news curation quality in the coronavirus newsletters analysed. The newsletter of the Spanish *elDiario.es* obtained the top score, followed by those of a numerous group of newspapers from the United States (*Politico*, *The Washington Post*, *The New York Times*, *The Boston Globe*, and *BuzzFeed*) and the newsletter of the French outlet *Le Figaro*. The newsletters of all these media can be described as examples of good curation practice and the main benchmarks or models that should be followed to ensure quality curation in newsletters, at least in terms of specialized information on coronavirus.

> The results suggest a slightly higher quality curation in coronavirus newsletters than in general information newsletters

The bibliography features no references, however, to curation quality standings in media from different countries other than in the recent study by **Guallar** *et al*. (2021a) on Spanish newspapers. This study, therefore, presents an initial look at the international situation, which should be verified and confirmed in future studies.

> Legacy media offers little content from external sources, while pure digital media offers the most, in some cases even more links to external websites than to their own

As regards the in-depth study of sources proposed in RQ3, legacy media were found to offer little content from external sources, while pure digital media, led by Spain's *elDiario.es* and *BuzzFeed* and *Vox* from the United States, were the outlets that offered the most, and in some cases even more links to external websites than to their own website. It is also worth noting that all the media analysed linked to the contents of media web pages and, to a much lesser extent, to official and corporate sources (very often associated with health) or citizens. The origin of the contents and the format was, again, most diverse in the pure digital *elDiario.es*, *Politico*, *Vox*, and *BuzzFeed* (not only websites but also blogs and social media). When they did offer content from media other than their own, it was usually from major international benchmark media, which includes both newspapers and television networks or news agencies. Links to specialized content were, in most cases, to organizations such as the *UN*, the *WHO*, or to expert medical websites. Insofar as the use of sources is concerned, the pure digitals were the media outlets with newsletters that most resembled their own model of digital journalism, considered as "bits organizing other bits", because digital media "do not provide [new] bits of information, they organize information that is already available someplace else (within the newspaper or outside it)", as put by **Santos** and **Peixinho** (2017, p. 780).

In answer to the two-pronged question RQ4 (differences between countries and differences between legacy and pure digital media), large differences were found among countries. No pure digital media outlets from France, Germany, and the United Kingdom were observed to offer their users specific curated newsletters about coronavirus and only digital media from the United States and Spain did so. Another fact worth mentioning is that in France, a country with major benchmark media such as *Le Monde* and *Libération* (to mention just two examples), only two newspapers, both legacy media outlets, saw the health crisis caused by the pandemic as an opportunity to offer their users specialized and personalized content, thus fulfilling a basic characteristic of newsletters (**Silva-Rodríguez**, 2021; **Santos**; **Peixinho**, 2017). If we compare legacy media among countries, the three outlets from the United States stand out from the others in terms of the quality of their curated contents; at the other end of the scale were the Spanish, German and British outlets (with the exception of *The Guardian*, which performed better than the others).

According to our results, therefore, the United States is the country with more coronavirus newsletters that score in the highest ranking of curation quality in both the first and second waves of the pandemic. The French media (except for *Le Parisien* in the first wave) also performed well while *elDiario.es* from Spain was ranked best of all in both periods. In their newsletters, these benchmark media published curated content that provides access not only to their own main news, but also links to a variety of media and institutional, corporate services, and social media, while also offering curation based not on the mere description but, in some cases, on the outlet's own interpretation. This yields a product with a greater personality and gives readers a more personalized experience, thus differentiating it from other media outlets.

At the other extreme are the newsletters from the United Kingdom (except for *The Guardian*) and Germany, all of which are legacy media and offer worse curated content. Lastly, there are the automated media (such as the Spanish legacy outlets *ABC* and *El Mundo* and the pure digital *El Confidencial*). The aim in these cases is to increase traffic without personalizing the newsletter's contents, a trend that has been observed particularly in legacy more than in pure digital media. Their purpose is informative, but they also follow the strategic end of encouraging subscriptions and visits to the website, as well as micropayments and content downloads, being the goal to win and to retain users (**Silva-Rodríguez**, 2021). Legacy media, therefore, pursue the beneficial impact brought by greater traffic when calculating the price of their advertising and, consequently, the financing of their business, as other studies have pointed out: *El País*, for example, is said to

> "fundamentally pursue a generation of traffic that makes its financing profitable through advertising, since its publications always refer to publications on the medium's website" (**Rojas-Torrijos**; **González-Alba**, 2018, p. 192).

In simple terms, legacy media that have made the transition and adapted to the digital environment could be said to be using the benefits of this technology mainly to increase their webpage traffic, while pure digital media also use them to provide users with access to the broad range of opportunities offered by hyperlinks and the Web, including social media. One exemplary model is the case of *elDiario.es*, as shown in this study and in previous work (**Guallar** *et al.*, 2021a; **Silva-Rodríguez**, 2021).

The identification of high-quality curated coronavirus newsletters may foster among media outlets this method of distributing information to their public: it is a user-centric alternative to the hyperinflation of often fake informative products that circulate through social media..

Lastly, some of the achievements and limitations of this study and suggestions for future research should be mentioned. In terms of achievements, this is the first study to have evaluated the quality of news curation in various media in different countries, based on the application of a system that can be used and replicated in other research work on journalistic curation. The limitations include those of the system used, which could be refined and improved in successive studies. The scoring system selected, forexample, could be called into question: a binary score (0-1) was used in most parameters whereas a scale (0-3) could have been applied to make analysis more precise. Moreover, scores were assigned regardless of the number of elements present. Hence, for example, a point was awarded if a newsletter included external content in that indicator, regardless of whether it offered one or more links from that category. These matters could be nuanced or reviewed in future work.

> The newsletter is a user-centric product that offers an alternative in a market saturated with information products

Finally, as far as future studies are concerned, it has been proposed that the sample studied should be extended to other countries and media, and different types of newsletters (general, specialized) should be compared for the same period of time, in order to analyse news curation in other non-newsletter journalistic products such as the news on the home page of digital media or a specific section, or to perform analysis in newsletters, supplementary to curation, of other important matters, such as their business model or journalistic structure.

5. Note

1. More details about the scoring system used in the evaluation, in: **Guallar** *et al.* (2021b) or **Guallar**, **Pedraza-Jiménez** and **Pérez-Montoro** (2022).

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WhatsApp and audio misinformation during the Covid-19 pandemic

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Abstract

Given user choices and the commercial offerings of internet providers, *WhatsApp* has increasingly become established as a new standard for communication by audio, image, and text. This paper explores the role of misinformation during the Covid-19 pandemic by using content disseminated through *WhatsApp*, thereby making three main contributions: a discussion about the potential shift toward nontextual and nonvisual forms of misinformation; the new social role of audio, namely related to the critique of policies and political actors during the early stage of the Covid-19 pandemic; and the questioning of the First Draft News disinformation conceptual model by proposing a complementary approach that focuses only on factuality. Conclusions were drawn after conducting a content analysis of 988 units of Covid-19-related audio files, images, videos, and texts shared via *WhatsApp* during the early stage of the pandemic. A typology was identified to address distinct claims that focus on five different topics (society, policy and politics, health science, pandemic, and other), as well as audio messaging trending as a novel format for spreading misinformation. The results help us to contextualize and discuss a potential shift toward nontextual and nonvisual forms of misinformation, reflecting the increasing adoption of the audio format among *WhatsApp* users and making *WhatsApp* a fertile environment for the circulation and dissemination of misinformation regarding Covid-19-related themes. In a society characterized by the rapid consumption of information, the idea that content must have a degree of falsehood to mislead is an indicator of the distance between theoretical models and social reality. This indicator is important to identify true content as potential misinformation on the basis of its factuality.

Keywords

Misinformation; Covid-19; Coronavirus; *WhatsApp*; Pandemic; Communication; Health; Society; Audio; *WHO*; *World Health Organization*.

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1. Introduction

On March 11, 2020, a pandemic situation due to Covid-19 was declared by the *World Health Organization* (2020a). Owing to the overabundance of information that accompanied the pandemic, the *World Health Organization* also declared an infodemic (*World Health Organization*, 2020b). The distribution of both information and misinformation related to Covid-19 via social media platforms was identified and generally considered problematic owing to the vulnerability of those who receive such (mis)information. This study explores misinformation concerning the Covid-19 pandemic distributed on *WhatsApp* in Portugal in the early stage of the pandemic. Portugal recorded its first confirmed case of Covid-19 on March 2, 2020. In a 10-day window, *Google* searches for "covid19" experienced a tenfold increase (*Google Trends*, 2020), and the four news outlets in the country's top website rankings all climbed between five and nine places (*Alexa*, 2020), indicating the magnitude of the search for information on how to deal with the pandemic.

At the same time, and despite the international development of Covid-19, the official communication from the Portuguese government did not respond to the needs of the public. Such factors, plus the uncertainty about the new disease, created a high demand for information, and *WhatsApp* rose as a platform (either intentionally or unintentionally) for sharing coronavirus-related misinformation.

To explore the role of misinformation on *WhatsApp* in the context of the Covid-19 pandemic, we made a public appeal to *WhatsApp* users, resulting in the receipt of 988 units of content related to Covid-19. These data were subjected to a debunking process to identify the claims and formats through which misinformation was circulated. The authors adopted a concept of misinformation that differentiated between two levels of factuality: inaccurate or incorrect.

2. Online misinformation: an approach

The body of knowledge regarding misinformation results from multidisciplinary contributions that go back to the first identifications of the phenomenon in the framework of the Cold War, as a mechanism for political manipulation between opposing institutional forces. The events surrounding the 2016 US elections (**Faris** *et al*., 2017), the 2016 Brexit referendum, and the reductive construction of the phenomenon known as "fake news" have consolidated this perspective of misinformation as a less ethical tool of political combat, perpetrated by a motivated agent with an easily identifiable agenda and intention (**Giglietto** *et al*., 2019; **Wardle**, 2018).

The online context of misinformation is marked by the design of platforms that facilitate the scale and speed of its spread, while challenging debunking efforts. Their decentralized nature enables every user to become a possible misinformation agent (**Krafft**; **Donovan**, 2020).

The construction of theoretical models is still largely based on the premise of a hierarchical structure of production agents and diffusers of false content, whose intention is to deliberately deceive the public and, thereby, acquire some type of gain, whether economic or political. The conceptual framework of First Draft News (**Wardle**, 2018; **Wardle**; **Derakhshan**, 2017) is based on this proposition and, under the umbrella concept of "information disorders," establishes the division between misinformation, disinformation, and malinformation by combining factuality and intention.

Misinformation is presented as "false, but not created with the intention of causing harm," in contrast to disinformation, which is "deliberately created to harm," and differentiated from malinformation, which is "based on reality, used to inflict harm" (**Wardle**; **Derakshan**, 2017, p. 20).

Misinformation and malinformation share the inherent idea of a deliberate intent to cause damage, while both misinformation and disinformation require untrue content.

Theoretically, this model is easily understandable and organizes some of the main ideas in the literature, aligning closely with the traditional perspective of misinformation as a tool for political combat (**Fallis**, 2015; **Hernon**, 1995; **Karlova**; **Fisher**, 2013). Through the deconstruction of disinformation and misinformation into seven subcategories:

- satire or parody,
- misleading content,
- false connection,
- false context,
- imposter content,
- manipulated content, and
- fabricated content,

the model identifies some of the main characteristics exhibited by this type of content (**Wardle**, 2018).

While widely cited and referenced, it has nevertheless been used very little as a basis for empirical codification and its applicability remains relatively untested, with some examples of the partial use of its basic concepts in the context of Covid-19 revealing little agreement among researchers (**Brennen** *et al*., 2020; **Salaverría** *et al*., 2020).

The interpretation of disinformation as a political propaganda tool, where opposing sides may deliberately and in a coordinated effort create and spread disinformation, falls short of the complexity of the phenomenon that the Covid-19 infodemic demonstrates. In the context of a public crisis such as a pandemic, the need to obtain information increases

(**Norman**; **Harvey**, 2006), official sources become saturated, and responses cannot keep up in terms of speed or detail, leading to the organic development of a vulnerable environment that is more susceptible to misinformation (**Van-der-Meer**; **Jin**, 2020).

Health misinformation is not new and is particularly common for certain topics, such as vaccines, and especially in populations with a lack of trust in their institutions (**Bode**; **Vraga**, 2018; **Fung** *et al.*, 2016; **Wang** *et al*., 2019). The underlying message is that healthcare agendas are not the result of a thorough scientific process but rather part of a political agenda (**Bessi** *et al*., 2015). False and misleading health-related content can cause immediate harm, and institutions face increasing pressure to act proactively (**Donovan**, 2020).

The speed of dissemination can result in a real impact before debunking is achieved, as exemplified by the cases of Ebola or Zika (**Bode**; **Vraga**, 2018; **Oyeyemi**; **Gabarron**; **Wynn**, 2014), and more recently with the claims regarding drinking methanol as a cure for Covid-19 that led to the death of more than 700 people (**Forrest**, 2020). In this type of scenario, the use of instant messaging applications such as *WhatsApp* contribute to this spread while making it difficult for anyone to access the data, identify, debunk, and assess the impact of the claims, and discover their source, given that it is an encrypted platform without moderation and without direct public access to content.

3. *WhatsApp* as a node for misinformation distribution

WhatsApp has increasingly been adopted as a new norm for networked communication (**Cardoso**, 2008). More than 2 billion people in over 180 countries use the platform, demonstrating that it is a preferred way to communicate in different societies and cultures, as well as being the third most used social media network (**Kemp**, 2020).

Users can use text, image, audio, video, documents, and location, either in one-to-one communication or in groups (with a limit of 256 contacts), to communicate. Although *WhatsApp* presents itself as a service to connect family members or coworkers, its domestication (**Silverstone**, 2006) goes further, highlighting motivations for uses that reflect feelings of belonging and establishing relationships, civic and activist participation, and the need to remain connected and informed in different areas of society within the scope of social, civic, and political actions (**Milan**; **Barbosa**, 2020; **Resende** *et al.*, 2019a; **Treré**, 2020). Users' practices reflect the possibilities conferred by the platform's features, and through them *WhatsApp* connects different generations (**Matassi**; **Boczkowski**; **Mitchelstein**, 2019) and gains new roles as a tailor-made social network.

WhatsApp's ease of use, accessibility, convenience, replicability (by allowing content forwarding), and multiplicity of content formats convey its potential for communication and dissemination. The app also provides a sense of security with end-to-end encryption. As a result, access to content is exclusive to senders and recipients, sharing history and metadata are removed, and efforts at attribution are unfeasible.

The increasing use of audio messages by *WhatsApp* users, accessible directly on the platform, reflects its ease, as users do not have to type anything (**Funke**, 2018). As audio formats rely on voice, users experience a more intimate type of communication and an emotional bond leading to a sense of togetherness (**Rodero**, 2018), something that the use of text makes more challenging. Furthermore, audio simultaneously facilitates the integration of a population with lower levels of literacy (**Conceição**; **Pessôa**, 2018).

The dynamics resulting from the appropriation of online communication platforms is of particular importance when studying the distribution and consumption of misinformation. The imposition of stricter community guidelines by social media platforms, such as *Twitter* and *Facebook*, coupled with the increasing investment in content moderators and the development of artificial intelligence to tackle information disorders, make messaging platforms an attractive alternative (**Rogers**, 2020). Research has revealed an association between *WhatsApp* and the spread of misinformation, rumors, or violence (**Arun**, 2019), and the context of political disinformation has been particularly well studied (**Canavilhas**; **Colussi**; **Moura**, 2019; **Dahir**, 2017; **Garimella**; **Eckles**, 2020; **Resende** *et al*., 2019b; 2019b). Some attention has also been given to everyday life uses, including health-related research (**Al Khaja**; **AlKhaja**; **Sequeira**, 2018), with some studies already focusing on Covid-19 as several countries witness its presence as a channel for transmitting misinformation about the pandemic (**Bastani**; **Bahrami**, 2020; **Cardoso** *et al.,* 2020; **Delcker**; **Wanat**; **Scott**, 2020; **Moreno-Castro** *et al.*, 2021; **Salaverría** *et al*., 2020). As a response, the app implemented limitations on message forwarding as well as shared advice on how users could protect themselves and prevent the spread of misinformation.

However, less research has addressed how specific *WhatsApp* features shape the way in which misinformation is produced, shared, and received by users. **Herrero-Diz** *et al.* (2020) explore how trust between users, who are usually in each other's contact lists, promotes unquestionable sharing, since the information comes from someone with whom the user very often has a personal relationship. These trends and *WhatsApp*'s growth as a prevalent terrain for misinformation sharing, particularly on subjects that other platforms are committed to moderating, make the role of *WhatsApp* in spreading misleading and false content a necessary priority for research.

4. Covid-19 and *WhatsApp*: studying misinformation in Portugal

Our analysis sought to provide answers as to the role played by audio clips on *WhatsApp* as a means for disseminating misinformation regarding Covid-19 in Portugal. The objectives of the research focused on the identification of formats, namely their specificity, and of narrative themes.

A new *WhatsApp* account was created to collect data shared between March 12 and 15, 2020. This allowed participants to forward content received on their *WhatsApp* accounts directly to the account associated with this research (the profile photo chosen was the logo of the research laboratory with the university's acronym. The biography included a brief explanation of the research).

A message to advertise the research was published on the official social media accounts of the university, explaining the research objectives and inviting users to send information about Covid-19 received via *WhatsApp*. This provided the public with a sense of trust in the research. The design also relied on evidence that social media can be a low-budget and rapid way to disseminate studies and collect data (**Kosinski**; **Matz**; **Gosling**, 2015). The research was also advertised in a mainstream national newspaper and on their social media accounts to stress the public interest associated with participation in the research. The use of this technique fits well with the research objective, since its aim was to map the diversity of available content rather than carry out a probabilistic analysis of the research universe.

Both academics and journalists have used *WhatsApp* as a method for collecting data (e.g., **Emery**, 2018; **Moreno-Castro** *et al.*, 2021; *Polígrafo –https://poligrafo.sapo.pt–*) since it allows for participation without temporal or spatial restrictions. In the context of studies on misinformation, it permits direct data collection in the medium itself, which could be more difficult to obtain on other online social networks, particularly owing to the action of content moderators who have the ability to eliminate such material. Since the newly created account was an individual one and not a group, there was a lower probability of users feeling conditioned and of social dynamics impacting the data collection. The method also suffers from some limitations, particularly regarding the heterogeneity of the participants and the information received. It is important to note that the information received may have originated from a set of more proactive individuals and that the same information may be shared countless times. Nevertheless, and taking these aspects into consideration, the method acquired prolific and diverse types of content.

As discussed above, the uncertainty regarding Covid-19, the need for information, and the expectant waiting for Portuguese governmental decisions created an environment in which the dissemination of unofficial information emerged. This crucial period lasted just three days, between March 12 and March 15, 2020, and our analysis focused on messages received during that specific period.

Each message received was manually downloaded and saved in a corresponding folder associated with a specific date. Information sent in text format was copied, pasted, and saved in a text file. Files were renamed for organizational purposes and to avoid possible associations. All the renamed files corresponded to an entry in a global registration and cataloging document. Duplicated files were identified, along with the number of times they were received and the dates of those occurrences. The authors considered content that was exactly the same as that previously identified to be duplicate information, while content showing any kind of change (**Cardoso**, 2008) was considered to be original.

We performed a content analysis (**Krippendorf**, 2004) of the original corpus using a quantitative approach on the basis of a codebook including the following descriptive variables: format, addressee, whether the communication was in the first or third person, and whether the content was misinformation, as well as a typology of claims related to Covid-19. The typology was created on the basis of preliminary studies regarding Covid-19 (**Brennen** *et al*., 2020; **Salaverría** *et al*., 2020) and content data. For coding such variables, the coders selected all the claims present in the content. The whole sample was coded by two coders, and the Cohen's kappa for claim type (0.81) was considered acceptable.

To identify misinformation, we considered the coding challenges presented by the European model (*European Commission*, 2018; **Wardle**; **Derakhshan**, 2017) that did not take into full consideration the empirical limitations in assessing a specific social feature as intent. For this research, the authors adopted the concept of misinformation, differentiating between two levels of factuality: inaccurate or incorrect. In inaccurate content, authors included content misleadingly presented as truthful and content that, at the moment of data collection, to the best of scientific knowledge, was still being questioned (e.g., the use of masks).

The debunking process, through the verification of facts and using official sources, was integrated into the codification process, following the process proposed by **Silverman** (2020) and the code of principles from the *International Fact-Checking Network* (*IFCN*). Depending on the result, a category was assigned to a file according to its meaning: (1) nothing to register, no false claims; (2) misinformation, contains inaccurate claims at the collected date/place; (3) misinformation, contains incorrect claims at the collected date/place.

The method chosen in this analysis brought ethical challenges, and a set of procedures were implemented to overcome these. Although data such as the telephone number or profile photo of the participant became visible upon receipt of the message, these were not collected. All received messages were answered, including thanks for participating in the research, noting that no personal data would be collected, and requesting informed consent via text. The participant was also given the possibility to drop out of the study at any time. Once the study was completed, all messages received and all data of a private nature associated with them were eliminated. Between March 12 and 15, 2020, 988 files were received. Of those, 232 were original files while 756 were classified as duplicates.

5. Covid-19 topics shared on *WhatsApp*

One of the main findings of this study was the identification of a typology addressing distinct claims and focusing on the following topics: (1) health and science, (2) society, (3) policy and politics, (4) pandemic, and (5) other (see Table 1 for details).

The "health and science" topic (36.3%) refers to claims specific to the coronavirus (18.4%), namely its origins, symptoms, associated diseases, spread, and patient profile. This topic also contains claims on the "prevention, diagnosis, and treatment of Covid-19" (17.9%), including information on how to avoid contagion, diagnose the disease, and treat Covid-19. The "health and science" topic relates to the context of the research and the need felt by the public to obtain answers to address their concerns (**Norman**; **Harvey**, 2006).

The "society" topic (20.5%) combines content related to "working conditions" (6.7%), which refers to the adaptation and response of work conditions to Covid-19, with content focusing on the "social response" (13.8%), that is, related to behaviors prescribed or proposed by the population at large to address the pandemic's spread.

The "policy and politics" topic (21.8%) combines content focused on the "authorities' response" (10.8%), namely government measures and actions, or lack thereof, to fight the pandemic, together with the "performance of institutions" (11%), namely the availability of human resources and the material capacity of national health systems, as well as guidelines on how to contact or access them. This topic highlights a political dimension of the circulating content through which government decisions are discussed and questioned.

The "pandemic" topic (16.5%) combines two types of claims: first, "data about the pandemic" (11.7%), which characterizes the phenomenon from a micro to macro level, with a special focus on countries, the number of people infected, or deaths; second, the "consequences of the pandemic" (4.8%), with a focus on the pandemic's side effects on the world at large, such as population decrease, economic recession, crisis, etc.

Table 1. Topic, claim, and frequency identified in the analyzed content

Topic	Claim	n *	%
Society	Working conditions	29	6.7
	Social response	60	13.8
Policy and politics	Authorities' response	47	10.8
	Performance of institutions	48	11.0
Health-science	Data about the virus	80	18.4
	Prevention, diagnosis, and treatment	70	17.9
Pandemic	Data about the pandemic	51	11.7
	Consequences of the pandemic	21	4.8
Other	Conspiracy theories	21	4.8
Total		435	100

*The sum is larger than the sample since the analyzed content could contain information regarding more than one claim

Table 2. Frequency of content received according to format (single and combined)

Format	Frequency (single format)	%	Frequency (combined format) *	%
Text	56	42.8	99	49.0
Image	4	3.0	84	41.6
Audio	47	35.9	4	2.0
Video	24	18.3	15	7.4
Total	131	100	202	100

*The total frequency is higher than the total number of the respective files, as they combined more than one format

Finally, the "other" topic focuses mainly on claims of "conspiracy theories" (4.8%) based on the argument that the pandemic was created to serve governments or economic interests.

6. Formats and (mis)information sharing

The shared formats were categorized by considering the multimedia character of the content and following similar approaches applied in related research areas (**Salaverría** *et al*., 2020). Among the content received, 56.5% (*n* = 131) contained only one type of format while 43.5% (*n* = 101) combined more than one (Table 2), reflecting the possibilities offered by *WhatsApp*'s features.

Text was identified as the most common format, representing 42.8% as a single format and 49% when combined with others. This feature is reinforced when the image format is analyzed. The relevance of text in these format combinations has the purpose of providing contextualization and meaning to the visually presented content.

Video represents 18.3% of the total single-format content received and 7.4% of the combined-format content. The most common combination is with audio or text, with information being conveyed to explain or contextualize what is seen. Video, being the most complex format to produce and the one that requires most time and attention from the receiver, was the least common.

In previous studies, audio had been found to have a weaker presence when compared with text and image formats (**Canavilhas**; **Colussi**; **Moura**, 2019; **Resende** *et al*., 2019b; **Salaverría** *et al*., 2020), but our study showed it to have a relevant weight, namely representing 35.9% of the total among the single-format content. This finding provides new insights regarding how misinformation might circulate and adapt to new situations and platform features.

7. Characterizing non-misinformation and misinformation on *WhatsApp*

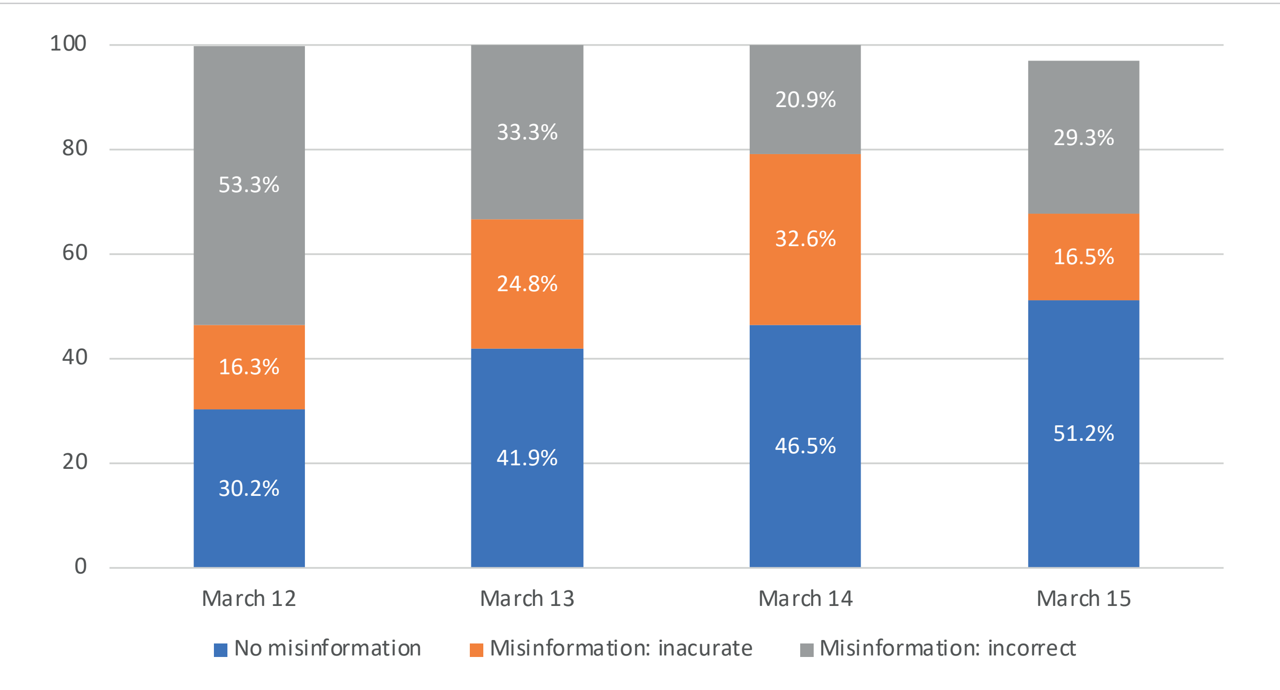
The results of the debunking process (Graph 1) revealed that non-misinformation represented 42.2% (n = 98) while misinformation represented 57.8% (n = 134) of the overall sample. Owing to the above-mentioned challenges regarding intent, we focused exclusively on factuality, differentiating between incorrect data, and where information was presented in a misleading manner, including false facts from inaccurate data.

The largest amount of content classified as misinformation was received on March 12 and 13, 2020. A steady decrease followed, not only in the total content received, but also that of a misinformative nature. The fact that Portugal, together with Finland, ranks first in terms of news confidence and low media polarization (**Cardoso**; **Paisana**; **Pinto-Martinho**, 2020) may explain this rapid decrease of misinformation dissemination. We hypothesize that this decrease is owing to the efforts made by Portuguese legacy media outlets that were alerted specifically to messages containing misinformation related to Covid-19 circulating through *WhatsApp*. The publication of news articles regarding audio misinformation on *WhatsApp* was also combined with the work of two Portuguese fact-checking platforms accredited by the *International Fact-Checking Network* (*IFCN*). *Polígrafo* and *Observador*
https://observador.pt/seccao/observador/fact-check

focused, during the same period, on the verification of content related to Covid-19, with an emphasis on content circulating on *WhatsApp*.

The results of this verification were shared by the media affiliated with these fact-checking platforms; in the case of the *Polígrafo*, this was the Portuguese TV channel *SIC*, the market share leader and trusted by 79.7% of the Portuguese population (**Cardoso**; **Paisana**; **Pinto-Martinho**, 2020).

Content related to Covid-19 and identified as non-misinformation was characterized by relying mainly on the use of the "image with text" format (41.8%) and aimed at improving knowledge related to the pandemic. Such knowledge included generic recommendations on proper behavior to protect oneself and others and to avoid exposure to the virus, for example, washing one's hands frequently or respiratory etiquette. Non-misinformation had its main origin in identifiable civil society initiatives. These origins also initiated nationwide societal calls to publicly thank health professionals for their work, which were conveyed mostly through text format.



Graph 1. Frequency of content received, per day, according to the result of the debunking process

Our research highlighted another dimension of non-misinformation sharing, namely the use of memes. Memes are understood herein to represent a digital information culture that shares common attributes and is distributed online through imitation or transformation (**Shifman**, 2014). In the context of Covid-19 in Portugal, memes were used to respond to and exacerbate societal behaviors, reflecting offline behaviors; For example, they highlighted the "toilet paper run" or keeping a "safe" social distance. The memes found in our sample were not of a misinformative nature, nor did they convey racist or hateful messages or rely on political narratives (**Saint Laurent**; **Glaveanu**; **Literar**, 2021); instead they focused on humorous narratives, distancing themselves from falsehoods.

Regarding the misinformative dimension, the analysis revealed that misinformation is mainly spread through the "text," "image with text," and "audio" formats. "Audio" formats are less well documented in misinformation research and thus represent one of the novelties of this analysis.

Misinformation in the "text" and "image with text" formats was found more commonly in the "health science" topic. During a health crisis, most of the content classified as misinformation tends to be linked to uncertainty about the new disease, coupled with the need to obtain information on the risk of contagion, symptoms, and treatments (**Bode**; **Vraga**, 2018; **Gesser-Edelsburg** *et al*., 2018). Content related to the Covid-19 pandemic was no exception in our sample: we identified misinformation regarding recommendations about strengthening one's immune system, the practice of alternative medicine, or tips on how to eliminate the virus. The most commonly recorded content was advice on drugs that could supposedly help fight the virus, or data about the availability and efficacy of potential vaccines. At the time of sharing, such content did not have sufficient scientific backing to confer any real legitimacy to such claims.

One of the more traditional formats of misinformation, i.e., the image, relied on charts or diagrams through which procedures or benefits associated with a certain "treatment" were explained. Nonetheless, the images lacked identifiable, proper sources or clear scientific proof; For example, images were used to compare Covid-19 symptoms and those of the flu or the common cold. Although the image content might not have contained incorrect claims about the flu or common cold, the message omitted any need for a proper diagnosis to be performed by a specialist who could confirm Covid-19, contributing to further misinterpretations. This provides a good example of how true content can be communicated in an inaccurate manner, and how this remains distinct from incorrect content.

Source identification is essential to assess the credibility of content (**Nyhan**; **Reifler**, 2012), and misinformation producers seem to have taken this into account. It was possible to identify in our dataset, in either text or visual format, examples of misinformation build-up generated by false perceptions concerning information (**Wardle**, 2018) through unsupported references to international institutions such as *Unicef*, the *World Health Organization*, or the *Portuguese National Health Service*.

Another misinformative strategy identified was misappropriation. For example, the misappropriation of a suggestion made in one article published by *The Lancet*,
https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(20)30116-8/fulltext
concerning the possible negative effects of ibuprofen, which led to incorrect claims of a direct correlation between the use of ibuprofen and higher death rates. Thus, misinformation shared regarding the Covid-19 pandemic through *WhatsApp* using the "text" and "image with text" formats was present mostly as false references to a third party (71.4%), not following a specialist approach to the subject but relying on everyday language, sourced from a supposed third-party organization with social credibility. Such content was mainly directed toward the general population (63.6%) rather than specific individuals. Misinformation made abundant use of claims without providing any scientific data that would confer legitimacy to its effectiveness or highlight potential solutions whose efficacy was not scientifically proven, and also lacked clarity, thus inducing different degrees of uncertainty within the general population. To improve the acceptance of misinformation as potentially true, names and images associated with renowned institutions or medical professionals were appropriated and combined with both common and generic information to give context or personalize a given prescription of attitudes and behaviors.

Studies have shown the importance and growth of audio formats, namely on messaging platforms. **Maros** *et al.* (2020) indicated an increase in the importance attributed to audio messages on *WhatsApp* as a means of communication. Having family, friends, and colleagues as part of one's *WhatsApp* contact list implies credibility, since the message is shared by a known source. This causes the shared content to seem more credible, even if it is considered misinformation. In *WhatsApp* groups, when compared with individual contacts, the situation gains greater dimension. Research has shown that, in groups, audio represents a third of the misinformation, reaching more people because it was shared by more users, revealing how viral this format can become (**Cardoso** *et al.,* 2020; **Maros** *et al*., 2020).

Fact checkers have also increased the alert level regarding misinformation in audio format on *WhatsApp* (**Delcker**; **Wanat**; **Scott**, 2020; **Funke**, 2018; *Polígrafo*, 2020). This is the result of the adoption by users of a format that is understood to facilitate communication. As pointed out by **Rodero** (2018), voice (when compared with text) is a simple, fast, and easy way to communicate, particularly in a society where time seems to be of the essence. To send an audio on *WhatsApp* requires no typing; the user only has to press a button to record the message. The use of voice also allows the message to be less prone to misinterpretation, when compared with text, as discussed by **Funke** (2018).

This perceived ease is coupled with the fact that using voice adds emotional features to the message, which is an important and distinctive variable according to Wardle (**Delcker**; **Wanat**; **Scott**, 2020). On the other hand, while other, more regulated platforms such as *Facebook* are proactively fighting disinformation, less regulated platforms such as *WhatsApp* offer a space for less scrutinized content to be disseminated (**Delcker**; **Wanat**; **Scott**, 2020).

Our analysis confirms and sustains some of the previously described trends. In our sample, the audio format is the second most used format to convey misinformation about Covid-19 on *WhatsApp*. Of the total audio files analyzed, 87.2% were classified as misinformation.

Audio misinformative strategy had similarities to that of text and image usage, but also exhibited some differences. In certain audio clips, supposed medical doctors, or someone close to a health professional, described chaotic situations and environments experienced in hospitals. The burden of the claim was placed on the unavailability of medical supplies, namely personal protective equipment such as masks or gowns. As a consequence, health professionals worked unprotected, conveying the idea of governments' disrespect for a profession essential to protecting the population. Other messages portrayed an image of incapability, either of the infrastructure or human resources, on the part of health services to respond owing to the number of infected individuals, the delay in their response, or poor working conditions. These messages suggested that the national health system was on the brink of collapse. Nonetheless, at that moment, Portugal had only about 100 infected people. Our analysis reinforces others, such as that by **Maros** *et al*. (2020), highlighting that audio messages with a more mournful approach or related to family or work tend to have a higher rate of sharing. The misinformative audio messages were also characterized by being anchored to specific events, located in time or space, while at the same time trying to establish an emotional connection with the listener. The identified audio misinformation used emotional tones of voice associated with storytelling strategy techniques (**Lamb**, 2008).

Who are the targets of audio misinformation? In audio misinformation, the "authorities' response" was always unequivocally questioned. Namely, the Portuguese government's supposed delay in the imposition of social isolation or other protective or restrictive measures was used to question the country's preparedness to fight a pandemic. Another strategy identified in misinformation-containing audio messages was speakers claiming to have access to privileged knowledge regarding governmental decisions, stating that their aim was to provide information to help citizens. They presented themselves as close to decision-makers, saying that a total lockdown would soon follow and that people should be prepared for it over the next day or within hours. They mentioned known names, e.g., people in political positions, or gave specific details about where meetings occurred to bolster the supposed accuracy of their message, to hide its misinformative nature and convey the idea that the authorities were hiding something.

Another finding was that different topics assumed different narratives. For example, the topic "data about the pandemic" questioned the experience being conveyed by the media and political actors. The level of preparedness of medical services, the fake number of infections or deaths, and incorrect measures that may be taken by governments are common arguments used in audio regarding Covid-19, not exclusively related to a specific country, and identified by fact checkers as misinformation (**Delcker**; **Wanat**; **Scott**, 2020). Audio message content claimed that the number of infected was far worse than what was made publicly available, and that several deaths had already occurred, with accusations of a governmental and media cover-up; meanwhile, news media and the government had no deaths yet accounted for.

What do misinformative audios have in common? Personification is the most common characteristic of the different misinformation narratives and is a determinant for the shift toward shared content where emotion is conveyed (**Delcker**; **Wanat**; **Scott**, 2020). In fact, the audio messages were constructed on the basis of first-person narratives to a specific individual, a friend, a relative, or the entire family. The introduction of names and places sustained the existence of a relationship between the original sender and the original receiver of the file. To capture the listener's attention, the audio is presented as a private communication between individuals rather than for public consumption.

An emotive tone (e.g., alarmed, scared, overwhelmed, or preoccupied) gave context and meaning to the audio and created a similarity with features of fictional storytelling while relying on the power of intimacy created by voice.

Recourse to the feature of "privileged access to information" was the second most relevant characteristic standing out in the audio content in our sample. By claiming to have access to undisclosed information from the "front line," the misinformation design sought to achieve wider acceptance. Most of the audio messages embodied features of rumor with a "hearsay" emotional warning, justified with an alarming story. The privileged access portrayed was associated with either a fictional friendship, a common professional career, or one's own expertise in understanding and interpreting scientific data.

Another finding of this study was the confirmation of the impossibility of accessing the original creators of the audio content, of knowing whether it was produced for private use with the aim of alarming only one loved one or the wider population, and of understanding whether there was a deliberate lie or just the reproduction of more "hearsay" that someone considered to be true. This finding mirrors the empirical difficulty of coding according to intent. However, the claims conveyed could, and have been, classified as misinformation with inaccurate or incorrect data on the basis of checking the facts the affirmations made.

8. Conclusion

Can we argue that there is a potential shift toward nontextual and nonvisual forms of misinformation? Audio is a popular tool through which individuals can communicate up to 24 different emotions (**Cowen** *et al*., 2019), conferring a personal and intimate mark upon audio by imprinting tone, emotion, or purpose –factors that are more challenging to achieve when using text and/or image formats. Additionally, the production and sending of an audio message on *WhatsApp* consists of a simple process, allowing the user to record and send it directly from the application, highlighting one of the platform's features (**Funke**, 2018) and making it an easy and simple way to create and disseminate misinformation.

Despite improvements in literacy rates, a considerable portion of the world population still has difficulty expressing ideas correctly through text (*Unesco*, 2019). Therefore, audio represents a leveraging tool for communication, allowing a message to be produced and distributed, and to reach a wide potential audience, without the need for the producer and consumer of the message to share reading and writing skills. Nonetheless, the anonymized nature and lack of check-able details, such as visual or textual clues, location, author, or date and time stamps, associated with this format make it harder to verify.

A more detailed data analysis concluded that audio was the most common among the content received and identified as duplicated, representing 85.6% (n = 694) of the total of the duplicate files received. These data provide clues regarding the importance given to audio on *WhatsApp* and its virality regarding Covid-19, standing out as a potential preference to disseminate content. The audio message functionality was introduced into *WhatsApp* in 2013, and over the last few years it has experienced an increase in usage at the expense of text, becoming a popular feature (**Fernando**, 2018). We argue herein that this change, provided by the platform's features, reflects an ongoing transformation in the process of domestication of the platform's functionalities (**Matassi**; **Bockowski**; **Mitchelstein**, 2019). When compared with text, audio information is easier to transmit and access, thus proving to be the fastest and simplest way to communicate in a digital society (**Rodero**, 2018).

Was there a new social role for audio misinformation content in building narratives focused on the critique of policies and political actors during the early stage of Covid-19 dissemination? The predominance of the "policy and politics" topic offers a perspective on how clearly government institutions communicate and, consequently, how their messages are understood by the population. The analysis of official and specific communication regarding Covid-19 in the Portuguese context indicates that the main messages can be classified as dubious or confusing (*CovidCheck*, 2020).

Regardless of the different claims presented in each audio message, there were certain repeated characteristics: an emotional connection with the listener and a questioning of trust in governmental institutions. The government was a common target, and through various suggestions, statements, and accusations, the audio messages heightened uncertainty and caused social alarm.

The accusations focused on the government having more information than they communicated, and fostered the impetus for the diffusion of two main ideas:

1) that decisions were being made but only shared within the center of power, giving them time to prepare and adapt, instead of communicating with the population, causing distance and imbalance between citizens and government structures; and

2) that the capacity of the government, namely the response of institutions and the reality of the situation, must be questioned.

The popularity of audio brings out other characteristics that impact on how misinformation circulates on *WhatsApp* and should be considered by researchers. At this point, given that there are no metrics associated with measuring the virality of content, this aspect can only be estimated. Such data could help to contextualize and claim a potential shift toward nontextual and nonvisual forms of misinformation, reflecting an increasing adoption of the audio format among *WhatsApp* users. The credibility of the content shared, since it is from a known source, poses a difficulty to listeners to classify it as misinformation. Nonetheless, research shows (**Maros** *et al*., 2020) that *WhatsApp* is a fertile environment for misinformation circulation and dissemination.

The trending misinformation format mirrors the format of preference among users (**Funke**, 2018), that is, audio messages, at a time when most efforts made by platforms to develop AI misinformation identification systems still focus on visual and textual clues.

Should we adopt a new approach to disinformation with a clearer move toward factuality? The characteristics of misinformation in health, and Covid-19 in particular, as well as the characteristics of the platform studied, accentuate some conceptual limitations of the First Draft News model (**Wardle**, 2018). This paper does not intend to propose an alternative model, but instead aims to argue for the need to discuss its applicability for the categorization and conceptualization of "information disorders" in light of empirical data gathered from different platforms, languages, and contexts.

In the research carried out regarding *WhatsApp* content, some of the challenges identified were overcome by dividing the content into different categories, taking into account only the contextual factuality and not the intent to mislead, separating "incorrect content" containing false claims from "inaccurate content" containing potentially misleading claims, and labeling the remainder as "nothing to register." These methodological choices led to the categorization of true (but contextually misleading) claims as imprecise content, and the fact checking was done taking into account the positioning of the scientific community at the time the content was shared (in the Portuguese context). No attempt was made to assess intent, given the impossibility of contacting the users who were the original sharers or creators. We can also argue that, even if these data were accessible, sustaining claims of intent to mislead on a platform such as *WhatsApp* would imply a high degree of potential doubt as to how to ensure the validity of such an assessment. Therefore, all inaccurate or incorrect content available in the sample was considered to be misinformation. The methodological discussion and construction of the codebook, which anticipated the analytical dimensions of this research, brought to light the fragility of the practical applicability of the First Draft News disinformation conceptual model (**Wardle**, 2018), questioning its limitations on three different axes: the degree of practicality regarding the verification of intention to mislead, the limitation on the noninclusion of truthful content, and the nonconsideration of the space–time vector of the publication. These limitations became even more evident given the nonpolitical but politicized nature of the object of study: misinformation about a new disease circulating on an encrypted messaging platform.

The question of intent cuts across much of the literature on disinformation and is the main criterion used by **Wardle** (2018) to distinguish disinformation from misinformation. The idea that there is a deliberate will to mislead by producing or sharing this kind of content is contradicted by user inquiries (**Herrero-Diz**; **Conde-Jiménez**; **Reyes-de-Cózar**, 2020), by individuals' conception of what disinformation is (**Nielsen**; **Graves**, 2017), and by research done on digital literacy (**Jones-Jang**; **Mortensen**; **Liu**, 2019), which shows that the sharing and production of misinformation arises spontaneously, often allied with a strong emotional charge, where the user is not aware of the incorrect or inaccurate content. Although there is always intent in the production and sharing of any message, the nature of such intent, that is, whether it is done to mislead, to express a true belief, or for any other purpose such as parody or satire, is extremely difficult to assess without a thorough understanding of the production process and the context that led to the original production and sharing of a message, something that the receiver of a given message usually has no access to, in terms of resources such as the availability of time and fact-checking literacy (**Nascimento**, 2021).

At the same time, the model fits into the perspective of disinformation as a tool for competing sectors, in which there is an organized, mechanical, and sometimes professional structure producing and sharing content. Although at certain times and at certain stages of the dissemination process this type of structure may be present, research has found several examples where the production and dissemination of incorrect or inaccurate content is organic and spontaneous, and the few identified structures result from the combined efforts of digital communities with common ideals, such as responses to social tensions, moral panic, or other types of community anxiety (**Bode**; **Vraga**, 2018; **Nielsen**; **Graves**, 2017; **Resende** *et al.*, 2019b).

In addition to the existing doubts regarding the identification of intention, there is the impracticability of its assessment. For a phenomenon that subsists almost exclusively in the digital space, and in a context of academic research based on the basic principles of ethics and respect for the privacy of the study's subjects, it is practically impossible to assess the intent of an agent who discloses content or identify its producer. Added to this challenge is the fact that many misinformation researchers work with content collected by third parties, namely fact-checking platforms or, as in our case, forwarded by other users on a platform that removes or encrypts users' identifying data.

The concept of misinformation based on the factuality of its content is transversal in literature (**Giglietto** *et al*., 2019) and was also partially applied in this study. In a society of rapid information consumption, in which often only the headlines are read or where videos, images, and text can be edited and their context changed, the idea that content needs to have a degree of falsehood to mislead is an indicator of the distance between theoretical models and social reality. It is also important to identify true content as potential misinformation when not properly contextualized and likely to cause misinterpretation (**Fallis**, 2015).

If the introduction of the space–time vector is already relevant in the framework of misinformation in its most traditional forms, the analysis of this phenomenon in the context of a pandemic with the emergence of a new disease, and wherein scientific time does not correspond to the social demand for information, makes this need even more evident. The idea of factuality as an immutable concept, in time and space, has been little discussed in the literature on misinformation, and our research around Covid-19 reveals the need to introduce this variable. During a pandemic associated with a new disease, the scientific certainties of today become the doubts of tomorrow, because incorrect facts of yesterday turn out to be true a few weeks later, for example, the issue of wearing face masks, with differences in recommendations for their use in time (March versus May) and space (Europe versus China) (**Cheung**, 2020). The analysis of misinformation should always be done taking into account the moment and location in which the content is shared. The need for researchers to have access to the variables of time and place of sharing is thus highlighted, and should not depend on collection by third parties.

These three considerations, that is, the impracticality of verifying intention, the noninclusion of truthful content, and the absence of the publication's space-time vector, result from the methodological discussion carried out among the researchers during the analysis, wherein it became evident, from the first moments of contact with empirical examples, that the current theoretical model presented significant shortfalls.

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YouTube como herramienta para el aprendizaje informal

YouTube as a tool for informal learning

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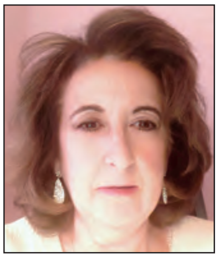

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Resumen

Las redes sociales son medios digitales utilizados con frecuencia por la gran mayoría de la población. Su popularidad ha facilitado su uso en múltiples áreas como el aprendizaje. Tal es el caso de *YouTube*, una de las redes sociales más empleadas para ello. Esta investigación tiene como objetivo descubrir las valoraciones de las características de *YouTube* como medio de aprendizaje informal atendiendo a las variables: género, formación y edad. Se trata de un estudio cuantitativo que incluye análisis descriptivos e inferenciales. La recogida de datos se lleva a cabo mediante un cuestionario elaborado *ad hoc* que incluye dos dimensiones: instrumental y pedagógica. Los datos se obtienen a través de *Google Forms*. La muestra se compone de 504 personas de 14 a 60 años pertenecientes a Andalucía (España). Los resultados muestran una alta valoración de las características de *YouTube* como recurso educativo informal por parte de la población estudio de ambas dimensiones observadas. Destacan aspectos instrumentales como el aprendizaje rápido y la adaptación del aprendizaje a tiempos y espacios deseados, y aspectos pedagógicos como el uso de dispositivos móviles como mediadores del aprendizaje (*mlearning*), su personalización mediante la elección del instructor y la exploración de diversas formas. El análisis inferencial arroja diferencias estadísticamente significativas en función del género en la valoración de los canales temáticos existentes en *YouTube*, y la formación en items ligados a la practicidad del aprendizaje. La edad resultó la variable con mayor influencia, presentando diferencias en la mayoría de los elementos evaluados.

Palabras clave

Redes sociales; Medios sociales; *YouTube*; Youtubers; Consumo; Aprendizaje informal; Educación; Autogestión de la información; Aprendizaje online; Formación; Autoaprendizaje; Personalización.

Abstract

Social networks are digital media platforms that are frequently used by most of the population. This popularity has facilitated their use in many areas such as learning. This is the case of YouTube, one of the social networks that is most widely used for this purpose. The aim of this study is to enable an evaluation of *YouTube*'s characteristics as a means of informal learning according to the variables of gender, education, and age. This quantitative study includes descriptive and inferential analyses. Data collection was carried out by means of an ad hoc questionnaire that includes instrumental and pedagogical dimensions. The data were obtained through *Google Forms*. The sample is made up of 504 people aged 14–60 years from Andalusia (Spain). The results reveal a high evaluation of *YouTube* as an informal educational resource by the study population in both dimensions observed. Various aspects of both dimensions were shown to be relevant, in particular instrumental aspects such as rapid learning and the adaptation of learning to desired times and spaces, as well as pedagogical aspects such as the use of mobile devices as learning mediators (mlearning) and the personalization of learning through the choice of instructor and the exploration of different ways to learn. The inferential analysis reveals statistically significant differences according to gender in the evaluation of existing thematic channels on *YouTube*, and in the training items linked to the practicality of learning. Age was the variable with the greatest influence, showing differences in many of the items evaluated.

Keywords
Social networks; Social media; *YouTube*; Youtubers; Consumption; Informal learning; Education; Self-management of information; Online learning; Training; Self-instruction; Personalization.

1. Introducción

Las redes sociales (RRSS) son utilizadas por la mayoría de la población, y en especial por los jóvenes (**Alkhatnai**, 2016; **Colás-Bravo**; **González-Ramírez**; **De-Pablos-Pons**, 2013). Su uso va desde la comunicación (actividad que les dio origen), a la búsqueda de información o el juego online (**López-de-Ayala**; **Vizcaíno-Laorga**; **Montes-Vozmediano**, 2020). Podemos distinguir cuatro ámbitos principales de uso: educación, socialización, entretenimiento e información (**Gupta**; **Bashir**, 2018).

Con más de dos mil millones de usuarios, *YouTube* es una plataforma en la que se publican vídeos de cualquier tema, compartidos fácilmente con una gran audiencia de manera gratuita (**Freeman**; **Chapman**, 2007). Es una de las plataformas de vídeos más populares del mundo. Ocupa el primer lugar en cuanto a producción de contenido digital (**Bonaga**; **Turiel**, 2016) siendo una de las redes sociales más utilizadas. Se han detectado cinco usos para *YouTube*: radiofónico, televisivo, social, productivo y educativo (**Pires**; **Masanet**; **Scolari**, 2021), siendo este último el objeto de estudio del presente trabajo.

Las primeras publicaciones que asociaron a *YouTube* con la acción educativa surgieron poco después de su creación (**Duffy**, 2008; **Skiba**, 2007), pero describieron las aplicaciones de *YouTube* para el aprendizaje de una manera muy generalista. Posteriormente se sucedieron otras investigaciones que conformaron la imagen de *YouTube*, en profundidad, como medio para el aprendizaje. Se trata de una línea de investigación en ascenso (**Bhatia**, 2018).

La incorporación de *YouTube* a los procesos de enseñanza-aprendizaje aportó nuevas visiones menos convencionales sobre el uso de la tecnología educativa (**Ranga**, 2017; **Tan**; **Pearce**, 2011). Factores como la creación de ambientes cercanos de aprendizaje, la resolución de problemas, la transferencia de lo aprendido a la práctica y el acceso a una gran cantidad de información de temas diversos revolucionaron profundamente la praxis educativa (**Al-Ahmad**; **Obeidallah**, 2019; **June**; **Yaacob**; **Kheng**, 2014; **Martínez-Domingo** *et al.*, 2021; **Moghavvemi** *et al.*, 2018). Su utilización se llevó a cabo fundamentalmente en niveles superiores universitarios, siendo provechosa en numerosas áreas (**Almobarraz**, 2018; **Massieu-Paulín**; **Díaz-Barrida-Arceo**, 2021; **Musa** *et al.*, 2021; **Scott** *et al*., 2018). Esta cercanía con las prácticas educativas universitarias coloca la formación universitaria como una de las variables a observar en el presente estudio.

YouTube no solo mejoró la experiencia educativa dentro de los contextos formales de aprendizaje, sino que abrió la puerta a la adquisición de aprendizajes que previamente eran inaccesibles fuera del entorno formal educativo. De esta manera fomentó lo que se conoce como aprendizaje informal: un modelo de aprendizaje más personalizado, carente de soporte institucional, donde el aprendiz adquiere un rol activo tanto en el proceso de aprendizaje como en la autorregulación de este. Es decir, decide qué aprender, cuándo, dónde y de quién. Se considera por tanto un proceso de autoaprendizaje (**Fedele**; **Aran-Ramspott**; **Suau**, 2021; **Lange**, 2019; **Livingstone**; **Sefton-Green**, 2016). La pandemia por Covid-19 acaecida en el mundo desde el año 2020 demostró el valor de *YouTube* como medio de aprendizaje informal con alto potencial (**Irawan** *et al*., 2020), con nuevas opciones didácticas (**Martínez-Domingo** *et al*., 2021).

Dos características han sido clave para para ello:

- su capacidad para evolucionar y adaptarse a las demandas y necesidades de la sociedad (**Berzosa**, 2017) con la incorporación de mejoras y nuevos avances en materia tecnológica (calidad 4K, realidad virtual, mayor duración de los vídeos, etc.);
- la enorme variabilidad en el contenido, incorporando vídeos educativos de cualquier temática, como música, idiomas o *fitness* entre otros muchos (**Cayari**, 2018; **Sokolova**; **Perez**, 2021; **Wang**; **Chen**, 2020).

La investigación sobre *YouTube* en un contexto de aprendizaje ha evolucionado con el paso del tiempo, incorporando una nueva perspectiva en la que la red social se encuadra como una herramienta con gran potencial para el aprendizaje informal (**Alves-da-Silva**; **Ferreira**, 2016; **Lange**, 2019; **Lebedev**; **Sharma**, 2019, **Pereira**; **Fillol**; **Moura**, 2019). No obstante, existe menor cantidad de bibliografía científica centrada en el aprendizaje informal en comparación con el enfoque clásico de herramienta de aula. Esta circunstancia se debe a la novedad e innovación que supone dicho enfoque. El presente trabajo se encuadra dentro de esta nueva perspectiva.

1.1. *YouTube*, una herramienta para el aprendizaje informal

Para comprender los motivos que subyacen tras el éxito de *YouTube* como herramienta de aprendizaje informal, es fundamental conocer los beneficios de esta plataforma, que está en continua evolución. *YouTube* posee características potencialmente valiosas para satisfacer las necesidades educativas de la población. Se trata de una fuente de información muy amplia, en tanto que permite acceder a una cantidad casi ilimitada de contenidos de temas diversos constantemente actualizados (**Abarca-Araya**, 2013; **González-Hernando**; **Valdivieso-León**; **Velasco-García**, 2020; **Jaffar**, 2012). En la sociedad cambiante que hoy conocemos, esto es un elemento clave para cualquier fuente de aprendizaje.

Desde un punto de vista tecnológico, *YouTube* ha sido un avance para desarrollar aprendizajes informales a través de ordenadores, tablets y especialmente los smartphones, que constituyen nuevos andamiajes pedagógicos (**Kim** *et al*., 2013; **Mansour**, 2016). Además, facilitan la adaptación del aprendizaje al momento y lugar que el usuario determine, permitiendo así un aprendizaje asincrónico (**Al-Ahmad**; **Obeidallah**, 2019; **Ramírez-Ochoa**, 2016), lo que instaura el primer pilar para su personalización.

> Desde una perspectiva educativa, *YouTube* supone la posibilidad de aprender en base a la interacción entre usuarios de todo el mundo. Como valor pedagógico, destaca la ruptura de espacios y tiempos

La individualización del aprendizaje es posible gracias a la existencia de canales específicos con contenidos concretos y diversos, con una amplísima variedad de áreas de conocimiento. A ello se suma la posibilidad de crear cuentas personales que tienen dos ventajas clave: son gratuitas, y en ellas actúa un algoritmo que analiza los canales visualizados y gustos generales para sugerir vídeos relacionados (**Jaffar**, 2012). Además, es posible suscribirse a canales específicos y crear listas de reproducción de temáticas determinadas.

En *YouTube* existen recursos digitales como los tutoriales o videoblogs: vídeos específicos y breves, lo que resulta atractivo para la población juvenil (**Bonk**, 2011). La generalización de estos vídeos ha convertido a *YouTube* en un medio de aprendizaje más social dada la cercanía y contextualización (**Fabara-Suárez** *et al*., 2017; **López-Aguilar**, 2018; **Padilla**; **Portilla**; **Torres**, 2020). Sus características han sido clasificadas en las dimensiones instrumental y pedagógica (**Colomo-Magaña** *et al.*, 2020).

En este contexto apareció una de las figuras más relevantes del mundo moderno: los youtubers (y más concretamente en el campo educativo *edutubers*). Los youtubers crean contenidos, que se administran por los canales de *YouTube* (**Berzosa**, 2017; **Bonaga**; **Turiel**, 2016). Son parte básica en la instrucción de los usuarios, y posibilitadores del aprendizaje. Los youtubers son referentes de la cultura digital y forman parte de nuestro sistema social, compartiendo rasgos con los usuarios y estableciendo conexiones, incluyendo una sensación de relación social con ellos (**Aran-Ramspott**; **Fedele**; **Tarragó**, 2018; **Pérez-Torres**; **Pastor-Ruiz**; **Abarrou-Ben-Boubaker**, 2018; **Sokolova**; **Perez**, 2021). Se abre así la posibilidad de seleccionar de quién aprender según criterio personal.

Las redes sociales, como *YouTube*, facultan una opción sin precedentes dentro del campo del aprendizaje virtual: acceder cómodamente a las prácticas y habilidades que se pretenden adquirir a través de la experiencia de esos youtubers. En ocasiones no solo se presenta a este instructor como experto, sino también como principiante que comparte su propio proceso de aprendizaje con su público. En ambos casos se muestra el procedimiento de organización del aprendizaje, lo que produce un aumento de la motivación en la creencia de poder lograr los objetivos (**Kardas**; **O'Brien**, 2018).

Un aspecto fundamental del aprendizaje informal en *YouTube* es la interactividad y la generación de comunidades, lo cual es posible fundamentalmente gracias a los comentarios (valoraciones, opiniones e intercambios de experiencias) a los vídeos. Son un espacio para el aprendizaje colaborativo (**Benson**, 2015; **Dubovi**; **Tabak**, 2020).

La evaluación de los aprendizajes constituye un aspecto peculiar en el caso de *YouTube*, ya que no existe evaluación externa, sino que es de índole interna y personal. Por tanto, la autoevaluación forma parte del mismo proceso de aprendizaje. Algunos autores (**Ramírez-Ochoa**, 2016) plantean la necesidad de generar una herramienta modelo para evaluar el aprendizaje en *YouTube*.

La presente investigación aborda la valoración de características de *YouTube* para la adquisición de aprendizajes informales. La naturaleza social de *YouTube* conduce a valorar aspectos sociodemográficos (además de la formación anteriormente mencionada) como el género y la edad. Se ha observado previamente que ambas influyen en los hábitos y actitudes en el uso de las RRSS (**López-de-Ayala**; **Vizcaíno-Laorga**; **Montes-Vozmediano**, 2020). Dicha cuestión se hace especialmente llamativa en el caso de la edad, pues la división entre nativos e inmigrantes digitales (**Prensky**, 2001) plantea escenarios muy diferentes a la hora de abordar un proceso de aprendizaje en *YouTube* para el/la aprendiz.

2. Objetivos

El objetivo principal del presente estudio es conocer la valoración por parte de la población de las características de *YouTube* como medio de aprendizaje informal. Como objetivos complementarios se encuentran:

- Desvelar las diferencias en las respuestas de personas de diferente edad, género y formación.
- Examinar las relaciones entre las variables (edad, género y formación) y la valoración de las características de *YouTube* propuestas en el estudio.
- Conocer la variable con mayor influencia en las valoraciones de *YouTube* por parte de la muestra.
- Analizar las características mejor valoradas por parte de la población estudio de *YouTube* como medio de aprendizaje.
- Valorar la influencia de la formación universitaria en la valoración y concepción de *YouTube* como medio de aprendizaje informal.

3. Material y método

El presente artículo presenta un trabajo de investigación no experimental de tipo cuantitativo basado en un cuestionario como instrumento para la recolección de datos.

3.1. Participantes

La muestra se compuso por un total de 504 personas de entre 14 y 60 años (M = 36,42) pertenecientes a la comunidad autónoma de Andalucía (España). Este tamaño muestral representa a la población objeto de estudio a un nivel de confianza del 95% en la hipótesis de P = 50 % y con un error muestral de ±4,37%. Esta muestra se extrae de una población total de 5,2 millones de personas en el rango de edad de este estudio. Se trata de una población infinita a efectos de muestreo. Cómo técnica de selección muestral se aplicó un muestreo no probabilístico.

Tabla 1. Resumen de la muestra

Género	Femenino (65,9%)	Masculino (34,1%)			
Edad	14-19 (10,7%)	20-29 (29,4%)	30-39 (15,3%)	40-49 (20,6%)	50-60 (24,0%)
Formación	Universitaria (49,6%)	No universitaria (50,4%)			

3.2. Instrumento

Una vez especificados los objetivos de estudio, y ante la ausencia de un instrumento validado que recogiera la información específica para alcanzarlos, se elaboró un cuestionario *ad hoc*. Lo constituyeron:

- preguntas sobre las variables sociodemográficas: género, edad y formación.
- 14 items sobre características de *YouTube* como medio de aprendizaje informal, que debían ser valoradas en función del grado de importancia que se le otorgaba a cada una durante el proceso de aprendizaje. Se presentó una escala Likert de 1 a 5 siendo: 1-Sin importancia; 2-Poco importante; 3-Neutro; 4-Importante; 5-Muy importante.

Los items se elaboraron a partir de una exhaustiva revisión y posterior análisis de la bibliografía existente sobre características de *YouTube* en el proceso de aprendizaje. Se trabajó fundamentalmente en base a los trabajos de **Berzosa** (2017), **Abarca-Araya** (2013) y **Colomo-Magaña** *et al*. (2020).

Posteriormente se llevó a cabo una validación por expertos. Siete expertos, pertenecientes al campo de la investigación o las redes sociales hicieron una evaluación de idoneidad del instrumento en base a una rúbrica. Los evaluadores plantearon modificaciones y mejoras en las escalas. Con estas propuestas de mejora se elaboró una segunda versión del cuestionario. Posteriormente se llevó a cabo una validación empírica mediante un estudio piloto. A lo largo del estudio piloto se suministró el cuestionario a 40 personas de distinta edad, género y formación (con el objetivo de representar una amplia variabilidad de sujetos). Se comprobó la fiabilidad del cuestionario aplicando la prueba de Alfa de Cronbach, para la que se obtuvo un valor $\alpha = 0,898$. Esta alta fiabilidad avaló la calidad del instrumento para la recogida de datos en este estudio.

Para explorar las posibles dimensiones o constructos que pudieran subyacer en el instrumento se utilizó un Análisis Factorial Exploratorio. Previamente se realizó el test de Kaiser-Meyer-Olkin (KMO) y el test de esfericidad de Bartlett. La prueba KMO arrojó un resultado de 0,927 y la prueba de esfericidad de Barlett p = 0,000. Por tanto, es oportuno realizar el análisis factorial. Los resultados del análisis factorial exploratorio con el método de extracción: análisis de componentes principales con rotación ortogonal Varimax aportó 2 factores que explicaban el 52.53% de la varianza total.

Los resultados obtenidos arrojaron dos factores claramente diferenciados que, siguiendo las aportaciones de **Colomo-Magaña** *et al.* (2020) se etiquetaron como instrumental y pedagógico. La dimensión instrumental hace referencia a características sobre la potencialidad de la herramienta en sí. En el caso de *YouTube*, en relación con su potencialidad para el acceso a conocimientos. La dimensión pedagógica incluye aspectos relacionados con los procesos internos que conlleva el aprendizaje. De forma sintética, se podría decir que ambas dimensiones se complementan, en tanto que en el primer caso, se plantea el acceso a nuevos conocimientos y en el segundo, se abordan aspectos más internos y cognitivos, relacionados con los procesos internos que el sujeto aplica en su aprendizaje.

Todo este proceso metodológico llevó a obtener un instrumento sistematizado y validado para recabar información sobre la utilización de *YouTube* para el aprendizaje informal.

3.3. Trabajo de campo

El trabajo de recogida de datos se llevó a cabo entre los meses de marzo y mayo de 2020. Dada la naturaleza del trabajo de investigación y el contexto de la pandemia, se determinó la idoneidad de recoger los datos de forma electrónica, utilizando dispositivos móviles a través de la plataforma *Google Forms*. El enlace de dicho cuestionario se envió por diferentes redes y medios sociales que permitieron la accesibilidad al mismo. Se incorporaron indicaciones y comentarios explicativos para garantizar la comprensión de las preguntas y la precisión en las respuestas obtenidas. Se garantizó en todo momento el anonimato de los participantes, así como el correcto uso de los datos obtenidos.

> *YouTube* facilita el aprendizaje fuera del aula mediante ordenadores y móviles, que son nuevos andamiajes pedagógicos (**Kim** *et al.*, 2013; **Mansour**, 2016)

3.4. Técnica de análisis de datos

Para el análisis de datos se emplearon técnicas de tipo descriptivo y de análisis inferencial. Para obtener los datos del análisis descriptivo referentes a los items que conforman el presente trabajo se usaron medias, desviaciones típicas, varianzas, modas y medianas, con el objetivo de presentar los datos de manera resumida observando sus aspectos generales más relevantes.

Las pruebas inferenciales se utilizaron para conocer la existencia o no de diferencias estadísticamente significativas en las respuestas según las variables de estudio: género, formación y edad. Al tratarse de medidas ordinales se opta por la aplicación de pruebas no paramétricas como U de Mann Whitney para variables con dos grupos (género y formación) y H de Kruskal-Wallis para variables con más de dos grupos (edad). Previo al uso de dichas pruebas se verificó mediante el test de Kolmogórov-Smirnov (K-S) con la corrección de significación de Lilliefors la idoneidad del empleo de pruebas no paramétricas en el estudio, obteniendo un resultado de ($p = 0{,}000 \leq 0{,}05$).

Por último, se halló el tamaño del efecto mediante la D de Cohen. Los valores de Cohen permiten identificar la magnitud o fuerza del efecto de la variable que se observe. Se tomó como referencia la siguiente interpretación: d = 0,10: tamaño del efecto bajo; d = 0,30: tamaño del efecto medio; d = 0,50: tamaño del efecto grande y d = 0, 70 tamaño del efecto muy grande. El análisis de datos se realizó mediante los softwares estadísticos *SPSS* y *G*Power*.

4. Resultados

4.1. ¿Qué valoran los usuarios de *YouTube* para su aprendizaje?

Los resultados descriptivos de la investigación quedan expuestos en la tabla 2.

Tabla 2. Resultados descriptivos

Dimensión instrumental	**Media**	**DT**	**Varianza**	**Moda**	**Mediana**
Aprendizajes rápidos	4,30	0,754	0,568	5	4,00
Acceso a mucha información	4,28	0,788	0,620	5	4,00
Información actualizada constantemente	4,08	0,848	0,719	4	4,00
Recomendaciones de contenido relacionado con tus búsquedas	4,20	0,809	0,655	4	4,00
Tutoriales de aprendizajes para la vida cotidiana	4,31	0,803	0,644	5	4,00
Existencia de canales y youtubers especializados en temáticas concretas	4,14	0,930	0,865	5	4,00
Adaptar el aprendizaje al horario y espacio deseado	4,50	0,743	0,553	5	5,00
Dimensión pedagógica					
Aprendizaje a través del móvil	4,11	0,977	0,955	5	4,00
Aprendizaje a través de los comentarios de los vídeos	3,32	1,202	1,446	4	3,00
Organización del propio aprendizaje	3,84	0,921	0,848	4	4,00
Experiencia de quienes publican vídeos como ejemplo	3,79	0,993	0,985	4	4,00
Ausencia de observación y evaluación durante el aprendizaje	3,90	1,095	1,199	5	4,00
Elegir de quién aprender	4,27	0,876	0,768	5	4,00
Explorar distintas formas de aprender y resolver problemas	4,17	0,832	0,692	4	4,00

Los resultados descriptivos muestran que la valoración por los aspectos instrumentales y pedagógicos de *YouTube* es por lo general alta. Esto se deduce a partir de la media total de ambas dimensiones: instrumental (M = 4,26) y pedagógica (M = 3,91), y de la moda, la cual oscila en todos los items entre los valores 4 y 5. En general todos los items que conforman la escala reciben una valoración cercana o superior al cuarto nivel (importante para el aprendizaje). Por tanto, *YouTube* posee características que son catalogadas como relevantes para el proceso de aprendizaje informal.

Dentro de la dimensión instrumental destacan tres items en particular: «Acceder a mucha información» (M = 4,28), «Aprendizajes rápidos» (M = 4,30) y «Adaptar el aprendizaje al horario y espacio deseado» (M = 4,50). Dicha circunstancia manifiesta la importancia que la muestra le otorga a la posibilidad de aprender rápidamente adecuando el aprendizaje a sus prioridades temporales y espaciales.

Por otro lado, en la dimensión pedagógica los dos items con mayor valoración son: «Aprendizaje a través del teléfono móvil» (M = 4,11) y «elegir de quién aprender» (M = 4,27). En este caso se conecta con la dimensión instrumental, puesto que la adaptación del aprendizaje a preferencias de tiempo y espacio se asocia a la preferencia en la elección del mentor. Además, el teléfono móvil es una herramienta clave para ello gracias a ser un dispositivo que facilita este contexto de aprendizaje. La dimensión pedagógica trae consigo uno de los items que ha generado mayor disparidad de respuesta: «Aprendizaje a través de los comentarios de los vídeos» (M = 3,32). Para refutar esta discrepancia se observa que presenta la varianza y desviación estándar más elevadas (σ = 1,446; DE = 1,202).

> *YouTube* es una fuente de información muy valiosa, ya que permite acceder a una cantidad ilimitada de temas y contenidos que se mantienen en constante actualización, respondiendo a las necesidades de esta sociedad cambiante

4.2. Diferencias según género en cuanto a la valoración de *YouTube* como medio de aprendizaje informal

Para analizar las diferencias en las respuestas estadísticamente significativas según el género se empleó la prueba U de Mann Whitney. Tras la aplicación de la prueba se calculó el tamaño del efecto mediante la d de Cohen (tabla 3). Sólo se representan los contrastes estadísticamente significativos, eliminando los que no lo fueron.

Tabla 3. U de Mann Whitney. Variable: Género

Ítem	Grupos	M	Me	Z	Sig.	D de Cohen
Existencia de canales y youtubers especializados en temáticas concretas	Hombre	4,33	5,00	-3,737	0,000	0,32
	Mujer	4,04	4,00			

En el caso del género solo un ítem procedente de la dimensión instrumental presentó diferencias significativas: «Existencia de canales y youtubers especializados en temáticas concretas» (p = 0,000 ≤ 0,05). Por tanto, el género no influye en la valoración general de las características de *YouTube* como herramienta de aprendizaje informal, ya que las diferencias solo se producen en un ítem. Pese a ello, sí tiene una influencia moderada (d = 0,32) en el papel de los canales temáticos en su proceso de aprendizaje, los cuales son más valorados por los hombres.

4.3. Diferencias según formación en cuanto a la valoración de *YouTube* como medio de aprendizaje informal

Para analizar las diferencias en las respuestas significativas según la formación (universitaria y no universitaria) se utilizaron los mismos métodos que en la variable género (U de Mann Whitney y D de Cohen). La tabla 4 representa los contrastes estadísticamente significativos, eliminando los que no lo fueron.

Tabla 4. U de Mann Whitney. Variable: Formación

Items	Grupos	M	Me	Z	Sig.	D de Cohen
Aprendizajes rápidos	Universitaria	4,40	5,00	-3,117	0,002	0,27
	No universitaria	4,20	4,00			
Adaptar el aprendizaje al horario y espacio deseado	Universitaria	4,59	5,00	-2,835	0,005	0,23
	No universitaria	4,42	5,00			
Aprendizaje a través de los comentarios de los vídeos	Universitaria	3,20	3,00	-2,213	0,027	0,20
	No universitaria	3,44	4,00			

Tres son los items que presentan diferencias significativas: «Aprendizajes rápidos» (p = 0,002 ≤ 0,05), «Adaptar el aprendizaje al horario y espacio deseado» (p = 0,027 ≤ 0,05) y «Aprendizaje a través de los comentarios de los vídeos» (p = 0,005 ≤ 0,05). Los dos primeros, pertenecientes a la dimensión instrumental, son mejor valorados por los participantes que recibieron formación universitaria, quienes valoran más la practicidad instrumental que ofrece *YouTube*, concretamente su asincronismo y adaptabilidad espacial en los procesos de aprendizaje y la agilización de los mismos.

Sin embargo, el ítem «Aprendizaje a través de los comentarios de los vídeos» de la dimensión pedagógica recibe una valoración mayor por parte de las personas que no recibieron formación universitaria. Este recurso es muy útil como componente guía, donde se pueden hallar aclaraciones y mejoras útiles. El tamaño del efecto es bajo en los tres items, y pese a existir diferencias estadísticamente significativas, estas son de un grado medio–bajo, no superando el valor d = 0,3.

4.4. Diferencias según la variable edad en la valoración de *YouTube* como herramienta para el aprendizaje informal

Para conocer los items que presentaban diferencias significativas atendiendo a la edad se aplicó la prueba H de Kruskal-Wallis. Se establecieron 5 grupos de edad (14-19; años; 20-29; 30-39; 40-49; 50-60). Excepto en el primer grupo, en el resto se han establecido intervalos de edad de 10 años. La tabla 5 recoge los resultados obtenidos de dicha prueba, incluyendo únicamente los aspectos que presentan diferencias significativas atendiendo a la variable edad.

Tabla 5. H de Kruskal-Wallis. Variable: Edad

Items	Chi-cuadrado	Sig.
Aprendizajes rápidos	25,609	0,000
Acceso a mucha información	17,986	0,001
Información actualizada constantemente	23,243	0,000
Tutoriales de aprendizajes para la vida cotidiana	19,468	0,001
Existencia de canales y youtubers especializados en temáticas concretas	46,123	0,000
Adaptar el aprendizaje a horario y espacio	20,040	0,000
Aprendizaje desde el móvil	19,243	0,001
La experiencia de quienes publican vídeos como inspiración para aprender	21,543	0,000
Ausencia de observación y evaluación	18,491	0,001
Elegir de quién aprender	24,930	0,000
Explorar distintas formas de aprender y resolver problemas	12,881	0,012

A partir de los resultados obtenidos se observa que la variable edad presenta diferencias significativas en 11 de los items que conforman la escala. Se deduce la influencia de la edad a la hora de valorar positivamente aspectos tanto instrumentales como pedagógicos de *YouTube* para el aprendizaje informal.

Esta exploración de la variable edad nos lleva a considerar la necesidad de ahondar en las diferencias entre grupos de edad en futuros trabajos, así como de hallar explicaciones para estas diferencias. Elementos culturales, sociales y formativos pueden ser referentes importantes para interpretar estos resultados.

Los resultados inducen, por tanto, a reflexionar sobre la influencia que tiene la edad en la valoración de las características de *YouTube* como medio para el aprendizaje informal.

5. Discusión y conclusiones

Los resultados obtenidos muestran una valoración alta de las características, tanto instrumentales como pedagógicas (**Colomo-Magaña** *et al*., 2020), de *YouTube* como herramienta para el aprendizaje informal por parte de la muestra del estudio. El alto grado de importancia que se otorga a todas las características de *YouTube* propuestas a nivel general conduce a la conclusión de que la población estima positivamente la red social como recurso en contextos de aprendizaje (**Alves-da-Silva**; **Ferreira**, 2016; **Bolat**, 2018).

La dimensión instrumental pone de manifiesto la relación existente entre los dos items con mayor valoración: «Aprendizajes rápidos» y «Adaptar el aprendizaje al horario y espacio deseado», ambos vinculados a la organización del aprendizaje. En el caso del primero, los vídeos de corta duración siempre han tenido mayor éxito respecto a los largos (**Bonk**, 2011). Esto supone una ventaja con respecto a los medios de aprendizaje tradicionales, ya que se propone una modalidad de aprendizaje de corto plazo que se adecua a las demandas temporales y espaciales.

Dentro de la dimensión pedagógica destacan los dos items más valorados: «Aprendizaje a través del teléfono móvil» (M = 4,11) el cual se asocia a la metodología conocida como *m-learning* (**Crompton**; **Burke**, 2018), que gana peso a medida que los móviles se introducen en la vida de la población desde edades tempranas y la acompaña en su proceso de desarrollo (**Pérez-Escoda**, 2018). Por otro lado, «Elegir de quién aprender» (M = 4,27). Dicha cuestión, sumada al resultado de los datos obtenidos en la dimensión instrumental, pone de manifiesto la necesidad de plantear modelos de aprendizaje en los que los aprendices adquieran un papel protagónico, no solo en el proceso, sino en la gestión y autorregulación del mismo. Es decir, una apuesta por el autoaprendizaje (**Fedele**; **Aran-Ramspott**; **Suau**, 2021; **Livingstone**; **Sefton-Green**, 2016).

Desde una perspectiva sociológica es interesante reflexionar sobre las variables sociodemográficas que componen el estudio. En cuanto a la influencia de la variable género, se observa que los hombres valoran más la existencia de canales personalizados. Es interesante reflexionar sobre ello puesto que *YouTube* es una reproducción de la sociedad. El número de youtubers hombres triplica al de las mujeres y el número de hombres que se atreverían a un futuro profesional como youtubers también es superior al de las mujeres (**Aran-Ramspott**; **Fedele**; **Tarragó**, 2018; **Pérez-Torres**; **Pastor-Ruiz**; **Abarrou-Ben-Boubaker**, 2018). Es reseñable que la única característica que presenta una diferenciación clara en las respuestas según el género sea de una connotación social tan elevada, poniendo de manifiesto la naturaleza social de *YouTube* en los procesos de aprendizaje.

> *YouTube* es un medio educativo informal que posibilita el aprendizaje adaptable y asincrónico

En lo relativo a la formación, y concretamente sobre la influencia de la formación universitaria, se halla la existencia de diferencias significativas en tres aspectos:

«Aprendizajes rápidos», «Adaptar el aprendizaje al horario y espacio deseado» y «Aprendizaje a través de los comentarios de los vídeos». En el caso de los dos primeros se promueve el valor del asincronismo en el aprendizaje, algo reforzado en estudios previos (**Barry** *et al.*, 2016; **Moghavvemi** *et al*., 2018). Ambos recibieron una mayor valoración por parte de la muestra con formación universitaria. Los estudios que analizan *YouTube* en el contexto del aprendizaje en la universidad son numerosos (**Almobarraz**, 2018; **Massieu-Paulín**; **Díaz-Barriga-Arceo**, 2021; **Musa** *et al.*, 2021; **Scott** *et al.*, 2018). Esto hace que sea relevante observar si el papel de la formación previa influye en la valoración de *YouTube*. A través de los resultados se observa que las personas que recibieron formación universitaria evalúan positivamente la mayor velocidad, asincronismo y adaptabilidad a demandas personales en el proceso de aprendizaje.

> Las redes sociales como *YouTube* dan paso a nuevas formas de entender las praxis del aprendizaje donde predomina la autogestión y la autorregulación

Por otra parte, el ítem «Aprendizaje a través de los comentarios de los vídeos» recibe una mayor valoración por parte de las personas que no recibieron formación universitaria. Pese a la utilidad evidente que supone este recurso en la aclaración de dudas, ha sido el ítem menor valorado a nivel general. Esto no es de extrañar puesto que se trata del único que puede llevar a situaciones desagradables. Para entender este hecho es necesario comprender que, los comentarios pese a ser un espacio donde se potencia el aprendizaje gracias a la interacción, en ocasiones dichos comentarios generan sentimientos negativos o críticas destructivas fruto de la libertad que permite internet (**Dubovi**; **Tabak**, 2020; **Lee** *et al.,* 2017).

La edad constituye un factor clave en la valoración de *YouTube* como medio de aprendizaje, como muestran las diferencias significativas presentes entre los grupos de edad que conforman la muestra. Dada la transformación digital de los últimos años y su amplio calado social, se hacen comprensibles y explicables estas diferencias según edad. En este sentido, sería interesante explorar en qué rangos de edad se manifiestan más significativamente estas diferencias. El cambio de una cultura tradicional a la digital, situación vivida por las personas de más edad, puede estar en la base explicativa de las diferencias detectadas.

Los resultados muestran que la edad es un factor que afecta en mayor medida que otros, como el género o la formación, a la hora de valorar herramientas tecnológicas como *YouTube* para el aprendizaje. Por tanto, el presente estudio se encuadra en el marco de otras investigaciones que utilizan variables como el género y la edad para hallar diferencias en la valoración, hábitos y usos de las redes sociales (**López-de-Ayala**; **Vizcaíno-Laorga**; **Montes-Vozmediano**, 2020).

A modo de discusión, los resultados del presente estudio plantean dos cuestiones: la preferencia por la reducción del tiempo para el aprendizaje, y la autorregulación y autogestión del mismo. En primer lugar, el modelo de sociedad actual necesita lograr aprendizajes y resolver cuestiones rápidamente, en consonancia con el ritmo de vida vigente. Además, no se trata exclusivamente de una cuestión de tiempo, sino que con el concepto de sociedad planteado por **Bauman** (2013), se necesitan medios eficaces que se adapten al constante cambio social y sus necesidades (**Berzosa**, 2017). Aquí se encuadra *YouTube* con su capacidad para ajustarse a múltiples contextos de manera asíncrona y personalizada, proponiendo el acceso a los aprendizajes deseados, lo que es clave para la motivación y su éxito.

Estos hallazgos sugieren la conveniencia de profundizar en futuras investigaciones sobre los procesos internos de aprendizaje que se generan con esta tecnología. En este sentido, la utilización de un enfoque cualitativo permitiría indagar y sacar a la luz modelos de interacción y aprendizaje que se producen en función de la edad, género y nivel de formación. Este estudio identifica aspectos diferenciadores que necesitan una explicación más profunda. La investigación cualitativa sería una estrategia científica apropiada para arrojar luz sobre estas y otras cuestiones relativas a la interacción entre sujeto y tecnología en los procesos de información, conocimiento y aprendizaje.

En definitiva, *YouTube* es muy útil para el aprendizaje informal. Su adopción gana peso a medida que las demandas sociales giran alrededor de ideas como la personalización del aprendizaje y la adaptación de este a las necesidades y demandas de la sociedad.

> La clave del éxito de *YouTube* es su capacidad de adaptación a múltiples contextos y ser útil en cualquier área temática

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Drivers and barriers in the transition to open science: the perspective of stakeholders in the Spanish scientific community

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Abstract

This paper presents the results of a research study whose objective was to identify the facilitating factors and barriers that, in the opinion of representatives of the Spanish scientific community, impact the implementation of the new open science model in four areas: open access, open research data, research assessment and open peer review. A qualitative study was designed in which information was obtained through interviews with researchers, editors of scientific journals, representatives of assessment agencies and vice-chancellors, and through a focus group of librarians with expertise in aspects of open science. The enabling factors and barriers identified were related to the researcher and the fruit of their research, as well as to the scientific ecosystem, which provides direct institutional support and backing (universities/research centres), the regulatory framework (management of the science system) and the science communication system (media). The results indicate that a shift in scientific practices toward the open science model can only be achieved if there is a policy framework that integrates all initiatives and links into the scientific assessment and reward system, and if the necessary funding is in place to support this transition.

Keywords

Open science; Open access; Open research data; Research assessment; Open peer review; Scientific system; Legislation; Research funding; Feasibility; Spain.

1. Introduction

It has now been 20 years since the Budapest conference that led to the *Budapest Open Access Initiative*. This manifesto showed that, at last, new technologies could change scientific communication by speeding up dissemination and facilitating access to publications (**Abadal**, 2017). At that time, the Internet was already starting to transform multiple processes in the areas of research, administration and education. Meanwhile, open access was opening up through scientific policy, from promotion to obligation, activism to legislation, and raising expectations about what could be shared. From that point, there were no further technological excuses to bar collaboration, and an increasing number of repositories and platforms were created to share content of various kinds (**Ferreira** *et al.*, 2008). Thus the foundations of what we now know as open science (OS) gradually began to take shape. The *Foster* project (2018) defined it as

> "the practice of science in such a way that others can collaborate and contribute, where research data, lab notes and other research processes are freely available, under terms that enable reuse, redistribution and reproduction of the research and its underlying data and methods".

For **Anglada** and **Abadal** (2018), OS introduces an open vision both in the design and the collection of data, peer review and the dissemination of research results. This change, rather than representing a rupture, is a social and cultural shift in scientific research, formalised, *inter alia*, by the *European Commission*, especially in its document *Digital Science in Horizon* 2020 (*European Commission***,** 2013). Thus, the concept of OS signifies a step forward in assuming a global and strategic vision of the way science and research are approached (**Bartling**; **Friesike**, 2014), promoting and covering parallel and multidisciplinary initiatives related to open access, the sharing of research data, educational resources, citizen science and the open review of scientific articles. On the other hand, **Fecher** and **Friesike** (2013) identify five perspectives in the literature on the cross-cutting approach to these dimensions of OS. They consist of the focus on its technological infrastructure, the right of access to knowledge, efficiency in the generation of this knowledge through collaboration, the extension of the audience that accesses it to include interested non-experts and, finally, the search for alternative standards to determine scientific impact.

It should be noted that, unlike the open access movement, the other OS fields have been promoted by public actors, the *European Commission* (2016; 2018; 2019) in particular. Proof of this can be seen in the progressive incorporation of the obligation to publish research articles and data in open access, pioneered by European public funding projects (e.g. The *Horizon* programme), but also by private funding projects (e.g. the *Wellcome Trust* and the *Bill & Melinda Gates Foundation*). However, while this has given a boost to OS from a science policy perspective, it does not mean that it enjoys the buy-in of all actors involved. As in any process of profound transformation such as that represented by the transition to OS, while the main structures are in place, it is also necessary for the actors involved to embrace the cultural and social change that this transformation implies. For this, even today, it is necessary to assess how the various OS initiatives are being implemented and to understand the barriers and reluctance that these initiatives may generate. Understanding science as a rational academic whole, but also as the sum of multiple individual visions. With logic, but also with emotion, habits, doubts and need for support and backing.

The *European Commission*'s Science 2.0 survey (*European Commission*, 2014) identified some early barriers to the adoption of an OS model. They included a lack of incentives and financial resources (e.g. APCs or article processing charges), doubts about quality in open review processes, or issues related to intellectual property. In the same vein, **Levin** *et al.* (2016) identified others such as competitiveness among researchers, the diversity of repositories for all types of data and publications, and the academic remuneration

> Open science is a social and cultural turn in scientific research

> We need to understand the barriers to the implementation of open science

system. In addition, in recent years, a number of survey-based research studies have been carried out, such as the annual report by **Hahnel** *et al.* (2020) focusing on research data, as well as the systematic review by **Zuiderwijk**, **Shinde** and **Wei** (2020) on the facilitators or inhibitors of sharing research data. Moreover, other studies have addressed the determinants for the adoption of OS globally, such as the work of **Gagliardi**, **Cox** and **Li** (2015), **Cabello-Valdés** *et al.* (2017), **Pardo-Martínez** and **Cotte-Poveda** (2018), **Allen** and **Mehler** (2019), and **Heise** and **Pearce** (2020).

However, despite the abundant literature on the process of dissemination of OS in all its aspects, what **Fry**, **Schroeder** and **Besten** (2009) call a shortfall in research governance between micro-practices at the level of the researcher and research projects, and macro-policies at the institutional level can still be observed, resulting in an environment of uncertainty despite the impetus given to OS by the institutions. In this regard, it is especially relevant to examine these aspects with respect to open access, which is the earlier extended dimension and which can help us understand how to promote the remaining initiatives more efficiently. It is enough to see how the recent public health crisis brought about by Covid-19 has afforded a huge step forward in terms of data sharing and almost immediate dissemination of articles between the laboratory and the public (**Méndez**, 2021).

In the case of this particular research, it has been carried out in Spain where, back in 2011, the Science, Technology and Innovation Act established the legal obligation to deposit a copy of the articles published in an open access repository in the framework of its state R&D&I projects. Some studies have found that the level of compliance with this mandate is quite low (**Borrego**, 2016; *Fecyt*, 2016; **Abad-García**; **González-Teruel**; **González-Llinares**, 2018; **Melero**; **Melero-Fuentes**; **Rodríguez-Gairín**, 2018). It seems appropriate then, ten years on, to acquire an in-depth understanding of the perspectives on OS of the actors involved in the Spanish scientific community. All the more so, when the only known approaches to the issue of OS in Spain have focused on a single actor (usually researchers) (**Segado-Boj**; **Martín-Quevedo**; **Prieto-Gutiérrez**, 2018); a single dimension, mainly open access (**Abadal** *et al.*, 2019; **Ferreras-Fernández**, 2021) and generally through surveys (e.g. **Ruiz-Pérez**; **Delgado-López-Cózar**, 2017; **Rodríguez-Bravo**; **Nicholas**, 2020) which, while they provide representative results, do not contribute to an in-depth understanding of the phenomenon under study.

The importance of studies of this kind lies in the insight they can provide, beyond merely quantitative metrics, into practices, habits and attitudes related to aspects requiring a regulatory framework which, as mentioned above in relation to OA, has proven ineffective. At a time when various public initiatives are seeking to promote a fully open vision of science, does the academic community understand the need for and advantages of OS? How successful might other regulatory actions be, such as making data sharing and reuse compulsory? And above all, are the current scientific assessment systems, most of which are based on individual reputation (citations and impact) and competition for resources, ready to assimilate OS values such as the notion of collective benefit? And in the process of assimilating these values, can and should assessment agencies encourage publication in open peer review journals given the conflicting views on the effects of maintaining open identities (**Thelwall** *et al*., 2021)? Answering these kinds of questions could help us to take the necessary steps towards truly open science, provided that the scientific ecosystem is ready for it.

In this context, the aim of this research was to expose the facilitating factors and barriers that, in the opinion of representatives of the Spanish scientific community, affect the implementation of the new open science model in four areas: open access (OA), open research data (ORD), research assessment (RA) and open peer review (OPR).

2. Method

A qualitative study was designed in order to gain an in-depth understanding of the perspectives of all actors involved in the transition to OS in the studied environment. The results obtained were to be the basis for a subsequent survey study that would also provide representative results of the entire population. This population consisted of all stakeholders in the Spanish public science community. Specifically, researchers, editors of scientific journals, vice-chancellors of universities with responsibilities in aspects of OS, heads of research assessment agencies and university librarians responsible for repositories or other areas related to OS. The selection of informants for the qualitative study was done through purposive sampling, including key informants or key knowledgeables (**Patton**, 2002), because of their role in the scientific system and therefore their ability to contribute relevant information to the research. All stakeholders with whom the members of the research team had had prior contact were invited to participate, and 31 informants expressed their availability.

Initially, data collection was to be carried out by means of focus groups with each interest group, with a view to obtaining information not only from each informant, but also from their interaction. However, the March-May 2020 lockdown period made necessary by the Covid-19 pandemic prevented this and online interviews were conducted instead, except in the case of librarians with whom a focus group was conducted. A total of 23 interviews were conducted with editors of university scientific journals (9 interviews), researchers (9), vice-chancellors (3), and assessment agency managers (2). With the exception of one vice-chancellor [03VR3], all of them, regardless of their post at the time of the interview, were researchers in different scientific fields. Eight librarians from university libraries participated in a focus group. Table 1 lists the make-up of the 31 informants who are assigned a code, as referenced in the presentation of the results (Table

1). Additional details on the informants are provided as supplementary material for the purposes of further contextualization of the results (see Appendix 1).

Table 1. Informants

Vice-chancellor/ Area of research (3 interviews)	Researchers/ Area of research (9 interviews)	Editors/ Area of the journal (9 interviews)	Librarians/ Responsibility (1 focus group)	Agencies (2 interviews)
01VR1 - Medicine	04INV1 - Economics	13ED1 - Documentation	23BIB1 - Repository	31AG1 - Mathematics
02VR2 – Anthropology	05INV2 - Engineering	14ED2 - Pharmacy	24BIB2 - Training	32AG2 - Engineering
03VR3	06INV3 - Psychology	15ED3 - Education	25BIB3 - Repository	
	07INV4 - Biomedicine	16ED4 - Biology	26BIB4 - Repository	
	08INV5 - History	17ED5 - Biology	27BIB5 - Repository	
	09INV6 - Medicine	18ED6 - Economics	28BIB6 - Repository	
	10INV7 - IT	19ED7 – Inform. science	29BIB7 - Repository	
	11INV8 - Sociology	20ED8 - Medicine	30BIB8 - Research	
	12INV9 - Economic	21ED9 - Medicine		

The interviews were conducted using a script that included different questions related to OS (Table 2 and Appendix 2). Each of the agents were asked only about the areas of OS over which they had decision-making power. This paper contains the analysis of the results of the questions regarding the barriers and facilitating factors. In the context of this research, barriers were considered to be any factor that could obstruct or hinder the implementation of OS policies, procedures or strategies. Conversely, enabling factors were considered to be those that could facilitate such actions.

Table 2. Informants, data collection technique and barriers/drivers for each dimension of OS observed for each group

Informants	Data collection	Dimensions of open science			
		Open access (OA)	Open research data (ORD)	Research assessment (RA)	Open peer review (OPR)
Vice Chancellors	Interviews	*	*	*	
Researchers	Interviews	*	*		*
Editors	Interviews	*	*		*
Librarians	Focus group	*	*		
Assessment agencies	Interviews			*	

The interviews and focus groups were conducted between March and May 2020 and lasted an average of one hour. In all cases, data collection was conducted via video conference, which was recorded for later transcription and analysis. This analysis took the form of qualitative content analysis in two phases. In the first phase, the interviewers themselves carried out a full manual analysis only of the interviews they had conducted. This first analysis started by reading the transcripts, line by line, underlining the relevant fragments according to the research question and assigning them a code, i.e., a word or phrase reflecting the content of the fragment. In the second phase, a single researcher carried out a second analysis based on the transcripts and the results of the previous analysis. For this second phase, an open coding process was used using *Atlas.ti* software. As prescribed by **Boeije** (2010), this process started with a complete reading of each transcript. Subsequently, the fragments that were significant for this research (enabling factors and barriers) were coded. Finally, these codes were compared with each other and with those obtained by the interviewers and grouped into two general categories. In the first, the factors related to the researcher and the research outputs were grouped together. In the second, the factors related to the scientific ecosystem responsible for providing direct institutional support and backing (universities/research centres), the regulatory framework (management of the science system) and the science communication system (media) were grouped together. In addition, the two analysis phases were used as peer debriefing, which, together with the thick description of the research process and the implementation of an audit trail in the software used for the data analysis, shaped the procedures to ensure the trustworthiness of the research (**Lincoln**; **Guba**, 1985). In this regard, it is worth mentioning that the interviews were conducted in Spanish or Catalan, although the fragments of the transcripts included in the results were translated into English.

Finally, the data collection process followed the ethical standards of social research, with each informant having to sign or verbally grant their informed consent on the template provided by the *University of Barcelona*, the

> Lecturers want to have everything in open access but are reluctant to deposit their own work in open

institution hosting the project. This document included information about the research (objectives, methods, funding and the team), the voluntary nature of the participation, the destination of the data collected and the commitment to confidentiality and anonymity in the management of these data. In view of this commitment, any identifying information of the informants was disassociated from the responses, and they were identified only by a code during the analysis of the information.

3. Results

3.1. Open access to publications

All informants, apart from the representatives of the assessment agencies, were considered as actors involved in this dimension of OS (Table 3).

Table 3. Enabling factors and barriers to the adoption of OA

Enables	I	E	R	V	Barriers	I	E	R	V
Researchers and their research									
Greater impact and visibility		*	*		Increased workload				*
Increasing accessibility		*	*		Age of the researcher			*	
					Contradictory attitude	*	*	*	
Scientific ecosystem									
Institutional support									
OA promotion/mandatory policies	*	*	*		Putting OA into practice				*
Training and deposit campaigns	*		*		Lack of OA funding		*		
Existence of an institutional repository			*		Lack of OA plans and policies	*			*
Information tailored to each researcher			*		Unclear institutional procedures			*	
Curricular incentives	*	*			Lack of incentives and support for publishing	*		*	
Economic incentives	*		*		Lack of visibility of the institutional repository			*	
					Repository usability			*	
Regulatory framework									
Requirement/obligation of the call for proposals	*	*	*	*	Current assessment system	*	*	*	*
					Private indices as the basis of the system		*		
Scientific communication system									
Commitment to OA for publishers		*			Confusion/lack of awareness of the transfer of rights	*	*	*	*
Early transition to an electronic format		*			OA publication costs - APCs	*		*	
Agreements with major publishing groups		*			Lack of prestige OA journals			*	
					Predatory magazines			*	
					Sustainability of the journal in an OA environment		*		

L: librarians; E: editors; R: researchers; V: vice-chancellors

3.1.1. Researchers and the dissemination of their research

There were two enabling factors directly related to the researcher and the fruit of their research. The first is the belief that both open publication and the use of document repositories increase the impact and visibility of the work. Derived in part from this, the second is the fact that accessibility to and therefore dissemination of the publications has been made easier:

> "If it is open, it is more accessible to everybody. In other words, the main motivation that, let's say, what you publish or contribute [to] becomes accessible to everybody and that [...] people [...] don't have to pay for anything. In the end, for research that, in many cases, has already been funded with public money, the results should be accessible to the public, who, when all is said and done, have funded the whole process." [11INV8]

There were three barriers directly related to the researcher. The first is the increased workload involved with document repositories and the second is the greater reluctance to change among the older generation of researchers. The third barrier is the contradictory attitude of some researchers mentioned by librarians, editors and researchers alike:

> "Lecturers want to have everything in open access so that they can have these materials, but [...] they are more reluctant to make their own work available in open access." [27BIB5]

3.1.2. Scientific ecosystem

Enabling factors

The enabling factors related to the scientific ecosystem had three main aspects. The first relates to the role of the university and/or research centre as the most immediate point of support in the field of OA. Therefore, institutional policy and strategies for the promotion and/or enforcement of OA and, specifically, campaigns to promote the deposit of work on open access repositories were mentioned as favourable factors:

> "Nowadays, the institution requires the author's version from the researcher. And then it is the library that checks the rights. What has happened as a result? In a few years we have gone from 60% to over 95%. Because sooner or later we get an open version, thanks to what? Thanks to research policy." [28BIB7]

In addition, at the institutional level, the existence of an institutional repository and the adaptation of the information disseminated on OA to each researcher or area, as well as the existence of curricular and economic incentives, were also mentioned as favourable factors:

> "...the grass roots movement [...] around the importance of open access is perhaps the biggest driver of change. Obviously, it helps if the institution joins this movement and there are initiatives, firstly to provide information and secondly to encourage this type of publication." [04INV1]

The second group of factors with a driving effect on OA within the scientific ecosystem involve the regulatory framework and, in particular, the deposit or open publication requirement in calls for proposals for research funding, something mentioned by informants from all groups:

> "I think Europe has done more, ...all the papers that come out have to be open. I don't really mind where, but a science law with an article that, I believe [...], many institutions fail to comply with and nothing happens as a result." [03VR3]

Finally, the remaining enabling factors within the scientific ecosystem are related to the scientific communication system and were contributed by editors only. Thus, from this point of view, the commitment of publishers to OA, the early transition to an electronic format and the possibility of establishing agreements with large publishing groups favour OA at the editorial level:

> "...in terms of costs and contribution, as a editor, it is much more profitable for me to be in a publishing group like this..., as opposed to the university, since the university is not a publishing house and does not have the same clout as publishers such as Springer, not to mention the marketing and dissemination systems as their disposal." [15ED3]

Barriers

The barriers related to the scientific ecosystem also spanned three aspects. First, from the institutional point of view, while vice-chancellors see the barriers as a lack of plans and policy and their translation into practice, the rest of the actors attribute these barriers to the university itself (Table 4).

Table 4. Barriers to OA adoption attributed to the university by editors, researchers and librarians

Group	Barrier	Example from interviews
Editors	Lack of funding for open publishing by universities.	"Of course, as a editor I thought, when all these things were happening, that there were only two ways to do it and one was that my university supported all this and economically speaking, I was told [no], no way!... And the other, which is the first [the quickest] way that I explored was to look for co-publications." [15ED3]
Librarians and researchers	Lack of openness plans and policies, as well as incentives and support for open publishing.	"We intend to publish in the top impact Q1 journal and it's open, but will the [university] help us? I don't think so, and it's going to cost $2,500. Ah, no, go to open, but pay for it out of your project." [12INV9]
Researchers	Lack of clarity in institutional procedures related to OA.	"We have wasted weeks on absurd discussions and the worst thing is that each periodic assessment of the project leads to the same discussion [...] at the institutional level, surely the message was clear that there was an obligation, an interest in promoting this form of publication. But at the level of monitoring, the whole thing is still quite green after a year and a bit." [05INV2]
Researchers	Problems with repositories for depositing document (e.g. visibility or usability).	"At the technical level, it is also true that the repositories where you can put all this type of information are sometimes not especially usable, or easy to go to to deposit the data." [10INV7]

Beyond the institution itself, from the point of view of the regulatory framework, it is the current science assessment system that is conditioning the adoption of OA, an aspect on which all four groups of informants agree, and which translates into incoherence between what should be done in the spirit of OA and the reality of a system that promotes impact as an assessment criterion:

> "...I think it is a pioneering factor in this avalanche of inconsistencies, in other words, publish in open but you won't receive a penny, publish in open [...] but it is worthless since the repositories that are worthwhile are the international ones, where there is much more [...] visibility and publish in open and then I will assess you through the impact." [12INV9]

Finally, there were five barriers related to the scientific communication system. One barrier mentioned by informants from all four groups is the lack of knowledge or confusion around publishing policy with regard to usage rights:

> "The editorial policies, that some [journals] implement for publications, copyrights, etc., mean that they sometimes don't know exactly what the copyrights are, or because explicitly in some publishers the publishing contracts give very limited exclusivity." [02VR2]

In addition to the previous barrier, there is another identified by librarians and researchers. This consists of the unaffordable cost per publication imposed by many journals. From the researcher's point of view, there is also the lack of prestige of some OA journals with a short history, which are therefore not included in the impact indices, together with the existence of predatory journals that confuse the researcher:

> "The bad press that many of these journals have attracted, as open access requirements are often confused with predatory journals, is due to the fact that in many cases, in order to justify charging fees, these journals argue that the article will be in open access. I therefore think that much more information is needed here to allow authors to distinguish between the two." [04INV1]

In addition, a final barrier was mentioned by the editors alone: the curtailing of the sustainability of their journal caused by the competition posed by other journals included in the main impact indices in attracting good manuscripts, given that an OA journal enjoys little or no institutional funding:

> "Is that sustainable? Well, these doubts come up regularly at editorial board meetings .....if our journal does not enter *WoS* or *Scopus* indexes in a reasonably short period of time, we are forced to conclude that it has no prospect for life, not because of open access, but because of the fierce competition to be in this league of indexed journals. A journal that is not currently indexed, without the support of the university itself, [...] is therefore condemned to self-publication, which is not useful for the department either, since publishing in your own university does not score points in accreditations and you have no great capacity for change." [19ED7]

3.2. Open research data (ORD)

All stakeholders, with the exception of representatives of assessment agencies, were asked about the factors related to ORD (Table 5).

Table 5. Enabling factors and barriers to the adoption of open research data

Enablers	L	E	R	V	Barriers	L	E	R	V
Researchers and the data they generate and use									
Perception of the benefit of sharing			*		Lack of perception of the benefit of sharing			*	*
Curricular benefits or reputation			*		Competitiveness among researchers		*	*	
Trust in the sharer		*	*	*	Differences between disciplines		*	*	*
Disciplines with a tradition in ORD		*			Decontextualisation			*	
Competition between researchers		*			Fear of being questioned			*	
					Increased workload		*	*	
					Reluctance to relinquish/share		*		*
Scientific ecosystem									
Institutional support									
Involvement/conviction of all stakeholders	*		*	*	Lack of data policies at the university		*	*	
Existence of a data plan			*		Need for coordination with other universities				*
Backing/support of university services			*	*	Uncertain financing				*
					Infrastructure for the repository				*
					Lack of practical data management knowledge	*		*	*
					Differing criteria depending on the project institution			*	
					Excessive bureaucracy			*	
					Lack of incentives and recognition			*	
Regulatory framework									
Existence of regulatory framework		*	*		Uncertain legal/ethical framework		*	*	*
Obligatory nature (or merit) in funded projects	*	*	*		Economic interests	*	*		
Scientific communication system									
Obligatory nature of the journal		*	*		Doubts about integration into the publishing process		*		
It is seen as a reflection of reliability		*							

L: librarians; E: editors; R: researchers; V: vice-chancellors

3.2.1. Researchers and the data they generate and use

Enabling factors

The ORD enabling factors directly related to researchers identified by these are: the perceived benefit of sharing the researcher's data, the existence of curricular or academic reputational benefits associated with sharing data and having confidence in the sharer. This last factor was also mentioned by editors and vice-chancellors:

> "You can't make a generalised policy, because everyone is different. I think the best thing a university can do [is] to say that those in the know, i.e. their researchers, should establish their own rules. For the sake of science and also based more on trust than on a rule." [09INV6]

Only two factors were highlighted by journal editors, namely, the existence of disciplines where sharing and opening up data is already seen as a natural process, and encouraging this openness so that competition between researchers comes into play to encourage the implementation of this practice:

> "If they see what others are doing, they would say 'hey, I want to do this too and I want to improve.'" [17ED5]

Barriers

There are four barriers on the other side of the coin of factors cited as enabling factors. These are the lack of perception of the benefit of sharing data, competition between researchers, in this case to disseminate these data before others, the differences between disciplines that require detailed processing and the fact that the decontextualisation of the data makes them useless for anyone who has not generated them:

> "...to be usable, of course, they would have to know that in such and such a layer of semiconductors we made I don't know how many. Because, of course, then these metadata, you put it there [...], in other words, for the data to be usable you need a great deal of knowledge about the data itself and I have that knowledge [...] because I think it is very unlikely that through pure data you can come to understand something more, if you don't have the context." [05INV2]

Other barriers referred to researcher attitudes and perceptions such as fear of being questioned, increased workload and, in general, researcher reluctance to give and share data:

> "We came up against reticence on the part of the first doctoral author who is just beginning the process of publishing and using the material of their thesis and who, when you tell them [...], put all this data in open access, they say: but I intend to make use of this thesis over the next few years [...]. I don't want to have my material in open access as it entails a very high cost for me and I want it to be my letter of introduction for the next three or four years." [20ED8]

3.2.2. Scientific ecosystem

Enabling factors

The enabling factors associated with the role of universities were the involvement and buy-in of all actors into ORD, the existence of prior data plans and backing and support from university services:

> "There was already a strong base in academia that believed in it and a team from the libraries, also very specialised and committed to it, so that has made it much easier to have an open knowledge plan today, without doubt." [03VR3]

On the other hand, from the point of view of the regulatory context, the driving factors behind ORD were precisely the fact that a reference framework actually exists and something on which librarians, editors and researchers could agree. This is the merit or obligatory nature of depositing data in research funding calls for proposals as a determining factor for this practice:

> "It comes from the fear of not being awarded the project. There is a box that says: it's voluntary, I'm not going to assess you based on this. But you say: oh, you're a good boy, click away. Then you enter the garden of open data." [05INV2]

The mandatory nature of journals is also a key driver of ORD highlighted by editors and researchers, as well as establishing a culture in which this is seen as a reflection of the reliability of the research, as mentioned by the editors.

Barriers

Firstly, the factors cited by informants related to the acceptance of ORD at the institutional level must be placed in a context in which, while appreciating the need to develop an infrastructure to support it, there are still no defined policies or strategies. Therefore, these factors were related to the lack of data policies at the university, the need for coordination with other universities and the still uncertain funding to create a supporting infrastructure:

> "This means that beyond the repository that we have open at the [university], where we can basically publish articles and not much else, the data still can't be put in open access and often not even the [university] researchers themselves are sharing data, which is quite surreal, I don't see a, a great... I mean, the philosophy and desire is there, and they intend to put the measures in place, but little else is happening." [10INV7]

These factors point to something mentioned by librarians, researchers and vice-chancellors alike, which is that there is still a lot of theoretical but not practical knowledge on the subject:

> "Actually on the subject of data, we have a lot of experts at the theoretical level, but in practice there are very few people who know about it." [28BIB7]

Along with the above, the researchers mentioned three other barriers to the adoption of ORD. The first is the problem of different data management guidelines in projects involving researchers from different universities. The second is the inefficiency of university support services who increase the bureaucracy required for all ORD-related processes. Finally, there are the limited incentives and recognition in the institutional framework compared to the effort required for project data management.

From a regulatory point of view, the barriers, which may be considered critical for the implementation of ORD, are related to the ethical aspects that need to be considered (e.g. anonymisation of data) and/or legal aspects. They reflect a lack of a regulatory framework that regulates various aspects such as data ownership, or a specific legal environment in projects with partners from different backgrounds and which, in short, has to do with the existence of differing criteria depending on the institutions participating in a research project, as mentioned above:

> "Yes, we trusted and relied on one another, but all the institutions were asked to talk to their legal departments to see, to get an ok that what they were doing... that they were doing it right. So, even though we had a legal partner, when we had the documents, how the data could and could not be handled and what data we could share among us, became a matter for our legal departments, [...] and then they told us that we cannot agree to this, but we could agree with that and so on. The law lacks substance, but it says this and we want to position ourselves in that way…" [10INV7]

In addition to the above, another factor that could be considered critical and which, in part, has to do with the legal and also economic aspects, is the existence of private funding that derives from patents which are therefore governed by confidentiality and data usage agreements:

> "Just as there are the economic interests of publishers, there are also individual interests in universities. There are the famous indirect ones of course, i.e. patents. And especially with regard to the current trend, with research data, there is a lot of fear, not so much of plagiarism as of the appropriation or theft of data." [28BIB7]

Finally, with regard to the scientific communication system, a barrier to the adoption of ORD is the uncertainty that still exists as to how to integrate it into the publishing process:

> "What we have, as we mentioned before, is a lack of knowledge. We still don't have well-defined pathways. People ask you how and where to upload it, to the institutional repository itself." [19ED7]

3.3. Research assessment

Vice-chancellors and heads of assessment agencies were asked about research assessment in an OS environment (Table 6). In general, these groups provided more barriers than enabling factors vis-à-vis a change in the research assessment criteria.

Table 6. Enabling factors and barriers to change in assessment criteria in an OS environment

Enablers	V	A	Barriers	V	A
Researcher as evaluator					
Cultural change	*	*	Disciplinary differences	*	
Involvement of researchers	*		Reward/recognition of evaluators		*
			Commitment of established researchers		*
Scientific ecosystem					
Institutional support/Policy framework					
Involvement and policy decisions at all levels	*	*	Inconsistencies with the traditional/alternative system	*	*
Global approach from OS	*		Undefined alternatives	*	*
			Economic cost assessments	*	*
			Longer assessment time and greater subjectivity	*	*
			Media *vs.* scientific impact	*	
			Coordination with other universities	*	
			Possibility of cheating		*
			Immobile administrative criteria		*
Scientific communication system					
			High degree of consolidation of the current publication/assessment system	*	

V: vice-chancellors; A: assessment agencies

3.3.1. The researcher as evaluator

Informants from both the vice-chancellor and assessment agency groups agreed that the change of culture that will come with new generations of researchers who are pursuing their careers with OS standards and values is a strong factor that favours the transition to an OS-orientated assessment system:

> "I think we are talking about a generational change.... We are going to need an open science native, and to have an open science native [...], we have to start bringing them into being. At least for the time being. And when that native born into open science arrives at the top, we will have achieved it, but that will imply a generational change, and we have to start changing the chip." [30AG1]

In addition, the vice-chancellors mentioned that bringing researchers into the debate could help bring about the necessary change:

> "...The new models [...], we want them to come out after a debate with academics, because for me, it is key that the researchers are present. However much we are able decide how to do this, it has to be discussed, it has to be opened up, there has to be reflection and we have to take advantage of the path to do pedagogy." [03VR3]

On the other hand, only the vice-chancellors mentioned the difference between areas of knowledge requiring specific criteria as a barrier to the adoption of new assessment models. For their part, the agency managers cited barriers such as the low recognition of evaluators, but also a lack of commitment of some to the necessary shift in the assessment culture:

> Curricular benefits and trust in the sharer favour data-sharing

> "Let's apply the concept of open science in the call for proposals for pre-doctoral grants [...] Well, let the poor people who want to have a pre-doctoral grant fight it out, and I will continue to publish where I publish, because it makes no difference to me. If those top researchers, who are the ones who end up deciding [...] because they are the ministry's own advisors..." [30AG1]

3.3.2. Scientific ecosystem

Only two enabling factors were mentioned. The first, mentioned by both the vice-chancellors and the heads of assessment agencies, relates to the policy decisions that are necessary at all levels and which support OS. The second, mentioned only by one vice-chancellor, was the need to address the different dimensions of OS in a holistic way, not only from an assessment point of view. However, in contrast to the few enabling factors, the number of different barriers mentioned by informants is striking.

The vice-chancellors and agency heads agreed on four barriers. Of these, two highlight the difficulty of having two assessment systems, one traditional and the other alternative, which generate conflicts between what is asked of the researcher according to OS criteria and what is assessed according to traditional criteria. Meanwhile, the idea of assessment with criteria adjusted to a new scientific ecosystem remains an unresolved issue due to a lack of clear guidelines:

> "...in this whole debate on how we conduct our assessment, there is a lot of discussion, some progress is being made, but what is clear is that [...] as things stand, there is no alternative. This is what a great many managers are asking for:
> - OK! So tell me, which index? Altmetrics?
> - No, it's just that each thing measures something different.
> - And how do I do that…?" [03VR3]

The other two barriers that the vice-chancellors and assessment agency managers agreed upon are related to operational issues within the assessment processes, such as the increased costs of the processes, in terms of money and time, as well as increased subjectivity in the criteria applied:

> "Who wants to evaluate 3,000 files when they can rely on statistical indicators, perhaps changing them, so why go for the qualitative version? Subjectivity has these problems. The cost as well as the subjectivity." [31AG2]

On the other hand, the barriers mentioned only by vice-chancellors or agency heads are closely related to their field of decision-making. In the case of vice-chancellors, it is the scope of their own university and the way in which they have to apply assessment criteria in this context. A barrier for them is the difficulty of differentiating between scientific and media impact when assessing research, and the need for coordination with other universities to ensure that no one benefits and/or is disadvantaged. In the case of the agency managers, the factors mentioned by them alone are tied into two aspects. The first relates to the lack of robustness of a system that relies on popularity in the easily manipulated social media environment:

> "I don't know much about it, but I am concerned about how this could be cheated, not by the researcher, but by the journal itself. In other words, it's easy to get bots to give you lots of likes. That worries me." [30AG1]

> The open culture of the new generations will favour the transition towards an open science-oriented evaluation system

The second is related to the public administration's priority of avoiding potential administrative appeals rather than developing assessment systems based on scientific criteria:

> Competition among researchers is a barrier to data sharing

"We are often very constrained, so to speak, by the Administrative Procedure Act. We have a tendency to reproduce this in any call for proposals and this poses a problem not only with using open science, but of using any assessment model, whereby we try to ensure that assessment is shielded from an administrative procedural point of view." [30AG1]

Finally, the vice-chancellors mentioned a barrier related to the science communication system and its high degree of consolidation which hinders the necessary change:

"We publish in publishing houses as if we were in the 19th century, when nowadays technologies undoubtedly afford us other ways of communicating our science. The fact that this is the basis not only for promotion, but also for funding, on the back of which the group will be able to do more research, well, the circle has already been drawn." [03VR3]

3.4. Open peer review (OPR)

Both journal editors and researchers were asked about the factors involved in the adoption of OPR and, as with the other OS dimensions, they referred to the researcher, in this case also in the role of reviewer, and to the scientific ecosystem (Table 7).

Table 7. Enabling factors and barriers to the adoption of open peer review

Enablers	E	R	Barriers	E	R
Researcher as reviewer					
Curricular or reputational incentives	*	*	Public scrutiny	*	*
			Conflicts between peers	*	*
			Coercive effect	*	*
			Biases by gender, nationality or age		*
Scientific ecosystem					
Scientific communication system					
Access or publication incentives		*	Lack of rigour	*	*
Classic PR malfunctioning		*	Managing the process	*	*
Transparency/visibility of the process	*		Reluctance for change	*	
Synonymous with quality	*				

E: editors; R: researchers

3.4.1. Researcher as reviewer

Researchers and editors were largely in agreement on factors related to the role of the researcher in the review process. In terms of favourable factors, informants from both groups mentioned the possibility that an open review could be a means to enhancing academic reputation or could be incentivised with curricular benefits:

"Publishing reviews also with the names and surnames of the reviewer increases your recognition. And if it is also [recognised] by the institution or the state agency that assesses you as a researcher, then these are aspects that could indeed be valued. In addition to the scientific article itself, the quality of the reviews you do and how much you contribute to the scientific world as a reviewer can also be valued." [06INV3]

In terms of barriers, researchers and editors agreed on three factors. Firstly, the fear of public scrutiny by giving up reviewer and researcher anonymity. This opens up the possibility of these processes generating conflicts and enmity between peers or a possible coercive effect, which will especially affect those who will have to undergo assessment or promotion processes in the future:

"I see more dangers than advantages. For example, one of the great dangers that I can see is especially in young people who, as has been demonstrated, tend to be the best reviewers [...], who have an entire promotional career ahead of them that can be filled with uncertainty and who don't know who is going to assess their projects. The fact of exposing your name in a peer review that is trying to be fair may be construed as criticising, albeit in a constructive way, your future peer [competitor] in a project..." [06INV3]

In addition, in the case of researchers, possible barriers due to gender, nationality or age bias in a review process without the refuge of anonymity was mentioned:

"To what extent are open peer reviews biased or unbiased...? For example, in seeing that it is a woman [the reviewer] could tend towards a particular opinion or vice versa. In seeing that the author is a man, [the reviewer] may tend towards another assessment, or the fact that they are researchers from the United States, [the reviewer] may start the review with a more biased view, perhaps, than if they were researchers from other less powerful countries in terms of research." [06INV3]

3.4.2 Scientific ecosystem

As for the factors related to the scientific ecosystem, these referred only to the scientific communication system, as would be expected. The enabling factors mentioned by researchers alone were, firstly, the fact that journals provide reviewers who publish their work with benefits in the form of free access to their content or at reduced cost per publication. Secondly, there is the fact that the very dissatisfaction with the reviews currently received, in a system where the reviewer is anonymous, could encourage the introduction of alternative systems:

> "...is that the peer review system works so badly that it won't do much harm. I mean, in the end, peer review responses that are sometimes indolent, sometimes insolent, sometimes vindictive, so if this is exposed [....]. There's nothing wrong with people having a little shame or being careful either." [05INV2]

On the other hand, the two identified by editors alone as favouring factors were the perceived link between OPR and the transparency and visibility of editorial work, as well as the link to a culture of quality of the process and even that OPR be taken as a mechanism for improving the quality of publications:

> "I personally like it because I find that you see the entire life cycle of the article [...] As a editor, I see it every day. In other words, I already see it, and what's more, I don't just see it, I make decisions about it. Now it's my turn to play the worst role. But instead you say, if that could be open and everyone could see it, everyone would realise how complex it is. And what's more, I think that in the end the article would be better off for it." [15ED3]

In terms of barriers, researchers and editors agreed that the coercive and conditioning effect of the loss of anonymity could result in a decrease in the rigour with which reviews are conducted. In addition, both groups also shared the conviction that OPR would complicate the process:

> "...it's the management of it. We currently have 800 articles that we receive, but in truth only about 200 are actually in the process of being reviewed, so managing this with an open peer review is complex [...]. I think that it would lengthen the work processes and I find it difficult above all because I don't have the people who can do it." [15ED3]

Finally, the barrier that was mentioned by editors only was the reluctance to change into a consolidated review system:

> "I believe that open peer review is about changing things and changing them in a positive sense. Of course, but when you change it, it means that you are changing mentalities, you are changing resistance and therefore it will be slower." [15ED3]

4. Discussion

This research offers an in-depth picture of the factors that may facilitate and/or hinder the adoption of open science (OS) in the Spanish scientific system, including four of its dimensions and collating the perspectives of the different stakeholders to whom this transformation will fall. It has therefore been possible to identify factors related to the attitudes, values or beliefs of researchers and factors that form part of what is considered the scientific ecosystem, which are the environmental variables that can modify scientific practices in a process of profound change.

As regards the barriers related to the researcher, it has been possible to identify most of those already put forward in the previous literature on the subject. These include the need for a clear scientific assessment procedure and the consideration of qualitative criteria (**Cabello-Valdés** *et al*., 2017), the discrepancy between the interest and understanding of OS and open research methods actually applied (**Heise**; **Pearce**, 2020), the need for a shift in attitudes and productivity of both academics and funders (**Allen**; **Mehler**, 2019), institutional inertia and the inadequacy of current funding priorities to develop research activities following the OS approach (**Gagliardi**; **Cox**; **Li**, 2015) and the lack of resources to carry out research activities within the OS approach (**Pardo-Martínez**; **Cotte-Poveda**, 2018). In the area of research data, perhaps the area of OS with the least progress to date, it has also been shown that trust in the parties with whom the data is shared greatly conditions this practice, a point also highlighted by **Zuiderwijk**, **Shinde** and **Wei** (2020), and that the curricular and academic reputational benefits are an aspect that could lend impetus to the sharing of research data, in line with what has already been highlighted by **Stieglitz** *et al.* (2020).

However, despite the time that has elapsed since the first OA-related initiatives, the barriers to the full acceptance of an open environment in science do not appear to have been pulled down, despite being well known. In the light of the results obtained, it will only be possible to change the culture and habits of researchers from a traditional model to the model proposed by OS if the conditions for this to happen exist in the environment in which they carry out their work. These favourable conditions are related to three areas of the scientific ecosystem: the existence of a regulatory framework that integrates the different OS initiatives of all the institutions of the Spanish Science, Technology and Innovation System (Secti), the linking of this regu-

> The current lack of harmony between scientific practices and institutional policies creates a context of uncertainty

latory framework to the system in place to assess and reward researchers, and finally, the existence of financial planning that facilitates the transition to this new model. In this respect, it is worth highlighting the *Center for Open Science*'s (*COS*) strategy for culture change (**Nosek**, 2019), which suggests that this change needs to be comprehensive, starting with the infrastructure necessary to make it possible, and followed by its integration into workflows to make it easier, the development of norms that show the desired behaviour to make it normative, and finally, the introduction of incentives to make it rewarding and policies that turn it into a mandate. The *European Commission* (2021) has also presented a recent report in which proposes a coordinated approach based on principles and actions that could be agreed upon by a coalition of research funding and research performing organisations committed to implement changes.

> Librarians best perceive the dissonance between researchers' practices and institutional mandates

Firstly, in terms of the regulatory framework, the recent *Unesco* project (2021) in OS recommends that member states adopt simultaneous measures and create an enabling policy environment

> "through a multi-stakeholder, participatory and transparent process with the scientific community and other actors" (*Unesco*, 2021).

In the case of Spain, in addition to the numerous specific policies in favour of OA from different funding institutions (*Melibea*, 2010), there is a higher-level regulation known as the *Science Act* of 2011 that requires the deposit of documents resulting from publicly funded calls for proposals. In view of our results, the existence of this regulatory framework is seen as a favourable factor for the adoption of OS. However, it is possible to affirm that its application is deficient, as evidenced by the fact that only 58.4% of articles resulting from publicly funded research had at least one open access copy available, two years after the entry into force of the Spanish *Science Act* (**Borrego**, 2016) or 62% in the case of articles in the area of biomedicine (**Abad-García**; **González-Teruel**; **González-Llinares**, 2018).

This poor implementation of a regulation that was supposed to be sufficient for the adoption of OS practices may be down to two reasons. Firstly, the regulation does not include the requirement for the depositing of data in the framework of European project funding. Secondly, it does not determine explicit procedures for assessing and monitoring compliance. In this respect, it is worth mentioning that "it is not enough to enact a law for policies to change" (*Cosce*, 2021) and that lack of oversight makes this law more of a declaration of intent than an OS-enabling instrument. In this regard, *Unesco* (2021), in addition to recommending an enabling policy environment, urges governments to establish adequate oversight and assessment mechanisms to measure the implementation of OS-related policies and incentives. Fortunately, it seems that work is currently being done in this direction through the Spanish science, technology and innovation strategy for 2021-2027 by promoting OS and boosting Spain's contribution to the *European Open Science Cloud* (*Secretaría General de Investigación*, 2021).

Furthermore, with regard to the assessment system, and in line with other studies such as **Cabello-Valdés** *et al.* (2017), the adoption of a new assessment model is emerging as one of the major challenges, as the traditional system conflicts with the values of OS. This lack of harmonisation is a barrier pointed to by all stakeholders and can be seen in two areas. The first is of a conceptual nature, related to the entrenched use of citation- and impact-based metrics and the limited penetration of alternative metrics that are more aligned with the spirit of OS. Despite the various proposals put forward thus far (e.g. **Wilsdon**, 2017; **Tahamtan**; **Bornmann**, 2020), consensus is still far from being reached on the use of new metrics that are more reliable, transparent and adaptable to all disciplines that enable an assessment based on the quality, integrity, reproducibility and social impact of science, thus replacing the current model of citation-based indicators.

On the other hand, a second area in which the lack of harmonisation between a traditional assessment system and the values of OS has been highlighted by the representatives of the assessment agencies participating in this study. This boils down to the operational consequences, such as the need for greater investment in human and financial resources and possible legal-administrative risks due to the application of more subjective and specific criteria for each scientific area. These are issues that the *European University Association* report (**Saenen** *et al.*, 2019) has already addressed, highlighting the complexity of this transformation, in addition to the lack of autonomy to develop and implement assessment approaches specific to each funding institution or science policy manager. As several informants in this study have pointed out, there is a need for policy decisions at all levels and a concerted approach that allows for inter-university dialogue and engagement between key actors.

However, despite the potential difficulties, some European countries have developed initiatives to foster the transition from a traditional assessment model to one that is more in line with OS. One example of this is the Dutch national assessment framework based on a new system of recognition and rewards that classifies university work, called the *Job Classification System* (UFO) or the German *Excellence Initiative*, in which universities are evaluated according to cooperation projects, which favours a collaborative scientific community and the openness of science, or the various European initiatives for global promotion of OS, such as those deployed in Portugal, France, Finland, Switzerland and Ireland (**Méndez**, 2021). While there are no similar

> Costs, in terms of money and time, and subjectivity make difficult the implementation of a new evaluation system

initiatives at a global level in Spain, something seems to be changing, particularly in view of the individual adherence of certain assessment agencies and universities to the *DORA* declaration and the calls made by researchers for real change in line with this declaration (**Delgado-López-Cózar**; **Ràfols**; **Abadal**, 2021).

> Change in attitudes towards open science is possible, but it can only happen if there is an institutional will to change

The third area of the scientific ecosystem on which, according to our results, efforts for a transition towards OS should be focused is research funding. Indeed, the barrier posed by the lack of resources to develop research activities within an OS approach has already been highlighted in previous studies (**Pardo-Martínez**; **Cotte-Poveda**, 2018). Moreover, this complaint has also been expressed by editors in terms of the need for universities to commit to open funding to ensure the sustainability of their scientific journals, by vice-chancellors in relation to the uncertain funding of the technological infrastructure that supports data sharing, by the increase in the economic cost of assessments, which is currently unaffordable, in the case of the assessment agency representatives and by the need for economic incentives to tackle the increasingly costly payments for open publication, mentioned by researchers and librarians alike. This, moreover, must be seen in the context of poor research funding, which has been dragging on since the 2008 economic crisis, as recently highlighted by representatives of the *Spanish Confederation of Scientific Societies* (*Cosce*, 2021). However, if there are no *Practical Commitments for Implementation* (*PCI*), as **Méndez** (2021) calls them, from the assessment agencies as well, establishing specific lines of funding for a global approach to OS, it will be difficult for the actions of the rest of the actors in the scientific system to be truly effective.

A few clear actions have already been taken, such as the transformative agreements (**Borrego**; **Anglada**; **Abadal**, 2021) that the *Conference of Rectors of Spanish Universities* (*CRUE*) and the Spanish *National Research Higher Council* (*CSIC*) have signed recently with various academic publishers for journal subscription and the option to publish their researchers' work in open access at no additional cost, under a single contract with each publisher. These are clear changes to the policies of funding agencies that are transforming the rules of play that have governed until now and resolving various questions (such as how much it costs, what the cost covers, and who has to pay for it), which could favour OA in the long term. However, for initiatives like these to have the desired effect, a firm commitment is also needed in terms of assessment policies, so that adherence to initiatives like *DORA* can have real, evident effects on researchers. An example of this kind of commitment is the recent announcement by the *National Agency for Quality Assessment and Accreditation* (*Aneca*) that it will be including activities related to open science in its assessment criteria.

If the regulatory framework, the change in research assessment criteria and funding are important, then the support at the grassroots level, i.e. librarians, should not be neglected either. Of all the actors in this study who reported on the drivers and barriers to the transition to OS, they are the ones who are best placed to perceive the frequent dissonance between researchers' practices and institutions' mandates, given their responses. In this sense, research support units in today's libraries tend to focus on the management of the infrastructures needed for OA (institutional repositories), support for the publication and dissemination of research (OA journals) and bibliometric services (**Iribarren-Maestro** *et al.,* 2015). However, the *League of European Research Universities* (*LERU,* 2018) goes further and proposes that one of the challenges for academic libraries should be the creation of OA-oriented services, as also proposed by the *Ligue des Bibliothèques Européennes de Recherche* (*Liber*, 2018).

5. Conclusion

Despite the limitations in terms of the representativeness of the results of a qualitative study, this research has allowed us to deepen our knowledge of the current perceptions of the stakeholder in the Spanish scientific community with respect to Open Access, twenty years after the *Budapest Open Access Initiative* and the first open access initiatives. Therefore, the scientific ecosystem has proved to be dynamic to the extent that informants' responses reflect more knowledge about OS-related aspects, especially in the areas of open access and research data sharing, than in the early years of implementation of institutional policy. The strategies and the outcomes they will bring about are no longer in question, but the focus is on the operational and/or technical level and the way that institutions provide support and develop appropriate policy for their implementation. This is especially significant for research assessment policies, which are still based on traditional academic practices and have limited capacity to respond to the new values proposed by OS.

The plurality of views collated by collecting information from all stakeholders has revealed the constraints perceived by some and the competence of others. It could be said that a change of attitude of researchers toward OS values is possible and that the time is ripe, but it can only happen if there is an institutional will to change. The current lack of harmony that has been detected between scientific practices and the policies and strategies developed by the competent institutions generate a context of uncertainty that will only be overcome with an adequate regulatory framework that includes a break with traditional assessment models and which is accompanied by adequate funding. As **Larivière** and **Sugimoto** (2018) put it, when the right structure and incentives are in place, researchers deliver.

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7. Appendix

Appendix 1. Additional characteristics of informants

The data on the size and results of the research are expressed according to the *IUNE* (*Spanish university index*) ranking: *https://iune.es*

Size: average number of teaching and research staff in the past ten years. The biggest number is 3,270 (*Universidad Complutense de Madrid*) and the smallest is 273 (*Universidad de La Rioja*).

Research output: Average number of docs. per average number of profs. in the last ten years. The highest is 3.92 (*Universitat Pompeu Fabra*) and the lowest is 0.10 (*Universitat Abad Oliba*).

Vice-chancellors

Code	Informant		University			
	Area of research	Gender	Type	Size	Research output	Geographical area
01VR1	Medicine	m	Public	2,000-2,500	1.5-2	Valencian Community
02VR2	Anthropology	m	Public	2,000-2,500	2-2.5	Catalonia
03VR3	-	f	Private	<500	0.5-1	Catalonia

Researchers

Code	Informant			University			
	Area of research	Career stage	Gender	Type	Size	Research output	Geographical area
04INV1	Economics	Professor	m	Public	2,000-2,500	2-2.5	Catalonia
05INV2	Engineering	Professor	m	Public	2,000-2,500	2-2.5	Catalonia
06INV3	Psychology	Lecturer	f	Public	2,000-2,500	2-2.5	Catalonia
07INV4	Biomedicine	Researcher	f	Public	2,000-2,500	2-2.5	Catalonia
08INV5	History	Professor	f	Private	500-1,000	1-1.5	Navarre
09INV6	Medicine	Professor	m	Private	500-1,000	1-1.5	Navarre
10INV7	Computer Science	Aggregate	f	Private	<500	0.50-1	Catalonia
11INV8	Sociology	Researcher	m	Private	<500	0.50-1	Catalonia
12INV9	Economics (e-learning)	Aggregate	m	Private	<500	0.50-1	Catalonia

Editors

Code	Informant	Journal		
	Gender	Area	Publisher	Geographical area
13ED1	f	Information science	Research institute	Madrid
14ED2	m	Pharmacy	Scientific society	Canary Islands
15ED3	m	Education	University – Commercial editorial	Catalonia
16ED4	m	Biology	Research institute	Catalonia
17ED5	f	Biology	Research institute	Madrid
18ED6	m	Economics	University – Commercial editorial	Catalonia
19ED7	m	Communication / Information science	University	Catalonia
20ED8	m	Medicine	University	Madrid
21ED9	m	Medicine	Scientific society	Valencian Community

Librarians

Code	Informant		University			
	Responsibility	Gender	Type	Size	Research output	Geographical area
23BIB1	Repository	f	Public	500-1,000	1-1.5	Valencian Community
24BIB2	Training	f	Public	<500	1-1.5	Catalonia
25BIB3	Repository	f	Public	1,500-2,000	2.5-3	Catalonia
26BIB4	Repository	m	Public	2,000-2,500	1.5-2	Valencian Community
27BIB5	Repository	f	Public	<500	1-1.5	Catalonia
28BIB6	Repository	m	Public	1,000-1,500	1-1.5	Catalonia
29BIB7	Repository	m	Public	1,500-2,000	0/5-1	Valencian Community
30BIB8	Research library service	f	Public	1,000-1,500	1-1.5	Catalonia

Agencies

Code	Area of research	Genre	Action area
32AG2	Engineering	m	Regional
31AG1	Mathematics	m	National

Appendix 2. Summary of script for interviews with agents in the Spanish scientific system

Topic	Agents	Interview questions: General topics	Interview questions: Additional topics
Open access	Vice-chancellors	Existing barriers to and benefits of the implementation of measures to encourage open access publications.	Existence of an explicit alignment at the university with open science and of incentives to encourage it.
	Researchers	Existing barriers to and/or motivations for open dissemination of your publications.	Existence or absence of strategies or policies at your university that have benefited you when publishing in open access journals.
	Editors	Barriers to and/or motivations for publishing journal articles in open access.	Opinion on the use of reuse licences for articles and the transfer of exploitation rights to authors.
	Librarians	Barriers to and benefits of the expansion of the open science model to research.	Opinion on positioning of institutional repositories in the promotion of open science.
Open research data	Vice-chancellors	Advantages and disadvantages of implementing measures to encourage researchers to deposit research data.	Existence or absence of a policy to recommend, require or provide incentives for the depositing of research data at your institution.
	Researchers	Advantages and disadvantages of depositing and reuse of your research data.	Opinion on whether the strategies at your university related to research data (if any) have benefited you (or not) when sharing or reusing research data.
	Editors	Advantages and disadvantages for authors to include the depositing of research data together with the manuscript and benefits that can be obtained.	Opinion on the level of author acceptance of the requirement related to research data.
	Librarians	Advantages and disadvantages of implementing measures to encourage the depositing of research data.	Opinion on infrastructure for data deposit.
Research assessment	Vice-chancellors	Barriers to and/or motivations for implementing a change to the assessment model.	Model for assessing publications at your institution and opinion on international declarations such as *DORA*, *Leiden*, *European Commission* reports, etc.
	Assessment Agencies	Barriers to and/or motivations for implementing a change to the assessment model.	Model for assessing publications at your institution and opinion on international declarations such as *DORA*, *Leiden*, *European Commission* reports, etc.
Open peer review	Researchers	Potential advantages and disadvantages of revealing author and reviewer identities in the peer review process.	Opinion on open availability of reviewer reports.
	Editors	Potential advantages and disadvantages of revealing author and reviewer identities in the peer review process.	Opinion on open availability of reviewer reports.

Structural analysis and evolutionary exploration based on the research topic network of a field: a case in high-frequency trading

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Abstract

This study aims to systematically analyze the distribution dynamics of research topics and uncover the development state of the research in the specific field, which will provide a practical reference for developing professional subject knowledge services in the era of big data. The research topic network is constructed and analyzed using methods and tools of scientometrics. Basic statistics on network characteristics are performed to reveal the research status. Community detection, node ordering, and other steps are conducted to generate the evolutionary alluvial diagram. Then, relevant results are analyzed to explore the knowledge structure of the specific field and evolutionary context of research topics. Visualization analysis on the network structure of the latest period is executed to distinguish related concepts and predict the research trends. Taking high-frequency trading (HFT) as a case, this study achieves diversified scientometrics analysis of the research topic network and multi-dimensional evolution exploration of the relevant research topics in the specific field, which obtaining some knowledge insights. (1) Six major topics in HFT: liquidity & market microstructure, market efficiency, financial market, incomplete market, cointegration & price discovery, and event study. (2) The research focus about markets gradually transferred from international to emerging, meanwhile continuous attention to volatility/risk related issues. (3) The emphasis will change from theory to practice, technologies (big data, etc.) and theories (behavioral finance, etc.) will have more interaction with HFT. An effective research idea is proposed to reveal the knowledge structure of field and analyze the evolutionary context of research topics, which demonstrating the knowledge insights.

Keywords

Research topic network; Evolutionary analysis; Scientometrics; *NEViewer*; *Gephi*; High-frequency trading; HFT; Emerging trends; Graphs.

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1. Introduction

Literature is the carrier and essential medium for disseminating technology and knowledge across time and space (**Li**; **Gong**; **Zhang**, 2011). With the increasing investment in research and development, scientific literature has expanded rapidly in scale and increased geometrically in quantity. Facing the massive data in the scientific field (**Guo** *et al.*, 2014), most scholars need faster and more intelligent methods to track the research hotspots in relevant fields and complete the understanding of emerging trends (**Howe** *et al.*, 2008). The knowledge networks formed by self-organization in scientific communication, such as citation networks and research topic networks, reflect the knowledge structure of the subject/field and its flow process. Toolkits such as *Citespace*, *VOSviewer*, and *NEViewer* (**Wang**; **Cheng**, 2013) systematically integrate the methods and technologies for exploring scientific datasets and enable scholars to achieve a variety of visualization analyses based on these knowledge networks (**Gu** *et al.*, 2019; **Moral-Muñoz** *et al.*, 2020; **Wang**; **Wang**; **Huang**, 2021). By analyzing the evolution of research topics in the specific subject/field, the research hotspots and the development state in the field can be uncovered effectively, it benefits scholars to quickly grasp the basic status and research progress of the subject/field, and it has gradually become an essential way for providing subject knowledge services in library and information science in the era of big data (**Huang**; **Wang**; **Wang**, 2020).

"Facing the massive data in the scientific field, most scholars need faster and more intelligent methods to track the research hotspots in relevant fields and complete the understanding of emerging trends"

The constant development and widespread adoption of new-generation communication technologies, high-performance computing, artificial intelligence, and other technologies create new conditions for research in various subjects/fields. Meanwhile, a new research field in finance influenced by these, high-frequency trading (HFT), has drawn greater attention. Born out of computer-assisted trading and algorithmic trading (AT) (*Staff of the Division of Trading and Markets*, 2014), HFT is a trading method that uses computer systems to make trading decisions in a brief time after processing the relevant data and quantitative analysis and does not hold positions overnight (**Aldridge**, 2009), with high speed and low latency (**Currie**; **Seddon**, 2016). It began in 1998 after the *U.S. Securities and Exchange Commission* (*SEC*) officially authorized electronic trading (*IBISWorld*, 2012). After that, benefited by the development of communication networks, computer hardware, artificial intelligence, and other technologies, and the revolution of trading rules, like the *Alternative Trading Systems Regulation*, the *Regulation National Market System*, and the *tick size* (the minimum price amount a security can move in an exchange) regime, the proportion of HFT in the global financial market continues to increase (**Hoffmann**, 2014; **Biais**; **Foucault**; **Moinas**, 2015). That means a radical transformation in the way the stock market operates. Meanwhile, the "dark pool" developed by HFT has increased the opacity of market operations (**Zupko**, 2021); the implementation of HFT strategies has raised public concerns about market fairness; and occasional shocks and disruptive events have posed regulatory challenges (**Goldstein**; **Kumar**; **Graves**, 2014). The implications of these developments need to be studied, summarized, and addressed by scholars.

Gomber *et al.* (2011) believed that "Is HFT beneficial or harmful to the economy?" is the most prominent question in HFT-related research. Some scholars summarized relevant views on the impact of HFT on the quality of financial markets (**Chung**; **Lee**, 2016; **Linton**; **Mahmoodzadeh**, 2018; **Virgilio**, 2019), while others further discussed the technologies and regulatory rules involved in HFT and supplemented with interview data (**Currie**; **Seddon**, 2016). Many scholars have attempted to categorize the academic literature on HFT, such as **Gomber** *et al.* (2011), who consider three main issues: market quality, fairness & colocation, and market penetration & profitability; and **Goldstein**, **Kumar**, and **Graves** (2014), who classified the research on computerized and high-frequency trading in the past decade into six categories: market performance, strategies & practices, evolution, speed, fairness, and regulatory implications. These studies have explored the underlying logic of HFT for some specific issues based on literature and empirical data. However, since these studies usually focus on aspects, which are unable to analyze related concepts of HFT objectively, and the data used is limited in quantity and variety, existing studies fail to provide a comprehensive picture of the knowledge structure in the field of HFT. With the development of scientometrics, more research perspectives and analytical methods are applied to analyze the new phenomena and new problems (**Serenko**, 2021) in library science (**Garcia**; **Lueck**; **Yakel**, 2019), accounting (**Lei**; **Deng**; **Liu**, 2020) and other subjects, and analyze the knowledge structure and research trends in some emerging research fields, such as *Bitcoin* (**Yu**; **Sheng**, 2020), smart city (**Moradi**, 2020), cloud health care (**Gu** *et al.*, 2020), etc. As far as we know, there is not currently any systematic review or scientometrics analysis of HFT by scientometrics in published journal[1], whether in finance or library & information science, which has brought certain obstacles to scholars' research and practitioners' practice.

Taking HFT as a case, this study focuses on revealing and "distance reading" the knowledge structure of subject fields and the evolutionary context of research topics. *NEViewer*, *Gephi* (**Bastian**; **Heymann**; **Jacomy**, 2009) and other network visual analysis tools will be used to analyze the collected papers, and the status quo will be quantificationally depicted in this study. By using these tools, this study will systematically explore the main research topics in the specific field and their macroscopic changing process, as well as the transfer of research focus reflected by them. Meanwhile, this study will comprehensively uncover the micro details of the subject research field, distinguish the connotation of relevant concepts, and make a reasonable inference about the development state of pertinent research. These will provide an important reference for scholars and practitioners in the specific field. And it will demonstrate a new idea for obtaining knowledge insights by using the research topic network to analyze the distribution dynamics of subject research and the development state of related research. Specifically, this study will take HFT as a case to explore the following questions:

- What is the distribution structure and evolution dynamics of research topics in the specific field?
- How to explore the research development state of the field reflected by the above analysis results?

2. Methodology

2.1. Research idea

This study proposes a general idea of analyzing the evolution of research topics based on the research topic network, as shown in Figure 1.

The following three stages are included in this idea.

Stage 1: Data collection and preprocessing

Web of Science (*WoS*) is one of the most widely used databases in academic circles, in which *Science Citation Index* (*SCI*) and *Social Sciences Citation Index* (*SSCI*) are internationally recognized authoritative indexes for scientific statistics and evaluation. Therefore, using papers published in journals indexed by *SCI/SSCI* to analyze the evolution of research topics can ensure the validity and reliability of its results. Specifically, take the selected terms in the specific field as "Topic," search in the *WoS* database, and set the year, language, document type, and other rules for filtering, thereout complete data export of the basic paper set of the field. The document information includes accession number, year published, publication, author, institution, author keywords and abstract, etc. The author keywords usually have some

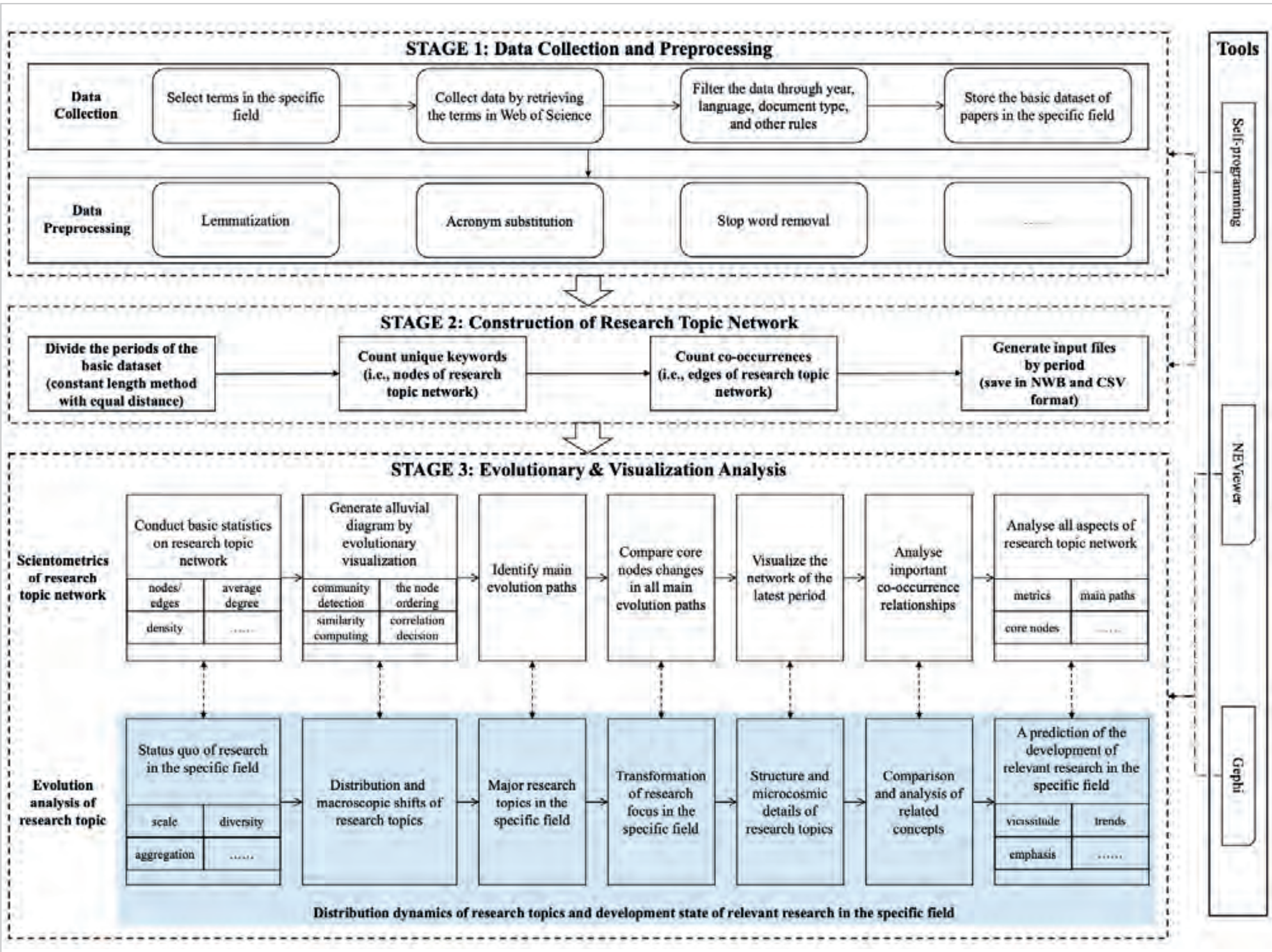

Figure 1. Research idea

formal problems such as morphology, abbreviation, and special character. Therefore, it is necessary to complete data preprocessing on the author keywords, such as lemmatization, acronym substitution, and stop word removal through self-programming.

> This study proposes a new idea for obtaining knowledge insights by using the research topic network to analyze the distribution dynamics of subject research and the development state of related research

Stage 2: Construction of research topic network

The research topic network is composed of continuous co-word networks of multiple periods, reflecting the correlation and the evolutionary context of related research topics. At this stage, firstly, the basic dataset is divided into several periods by combining the characteristics of field development and the constant length method with equal distance. Then the unique keywords and the co-occurrences among them in each period are counted as nodes and edges of the co-word network, respectively. Finally, according to the requirements of *NEViewer* and *Gephi*, the co-word network data of each period is saved into NWB and CSV formats, which are used as the input of the next stage.

Stage 3: Evolutionary & visualization analysis

Diversified scientometrics analysis of research topic network and multi-dimensional evolution exploration of research topic in the field corresponding to each other. From the perspective of the basic characteristics of network structure, community aggregation & association, nodes/edges, and other constituent elements, the research topic network is measured and analyzed, to scientifically explore the status quo and development trends of research in the field, and to visually reveal the macro process and micro details of the evolution of research topics. At this stage, the research topic network is measured scientifically through seven steps to realize the corresponding research topic evolution analysis. Finally, the distribution dynamics of the research topic are revealed, and the development state of the related research is uncovered.

1) Through the basic statistics of structure indicators such as nodes/edges, average (weighted) degree, and density of the research topic network, the development scale, diversity, and aggregation of research in the specific field is understood.

2) Through the detection of the research topic community, the node ordering, similarity computing, and correlation decision in *NEViewer*, an evolutionary visualization analysis tool, the evolutionary alluvial diagram of the research topic community is generated, to visualize the distribution of research topics and their macroscopic shifts (Birth, Growth, Merging, Contraction, Splitting, and Death).

3) Identify the main evolution paths formed by communities of research topics throughout the alluvial diagram, to know the major research topics in the specific field.

4) Among the main evolution paths, the node ordering in the topic community of different periods (especially the changes of core nodes) reflects the transformation of research focus of related topics. Thus, by comparing the changes of the core nodes in all main evolution paths, the transformation of research focus of the major research topics in the specific field is revealed.

5) Visually analyze the co-word network structure in the latest period by network exploration and visualization software *Gephi*, intuitively observe the co-occurrence relationship between related keywords, and then explore the topological structure and microcosmic details of the research topics in the latest period.

6) In the co-word network, a greater edge weight means a more critical co-occurrence relationship between the two related keywords. Analyze these important relations, explicitly understand the connotation and extension of specific concepts, and then distinguish the relevant concepts in the field.

7) Comprehensively analyze the overall situation of the research topic network in terms of structural metrics, main evolution paths, core nodes changes, etc., to study and judge the development state of relevant research in the specific field from the perspectives of vicissitude, trends, emphasis, etc.

After these stages,

- the status quo of research in the field can be quantitatively characterized;
- the major research topics and their macroscopic shifts process as well as the transfer of research focus reflected by the two can be systematically explored;
- the microscopic details of research in the field and the connotation of related concepts can be clearly analyzed; and
- the future development trends of the related research can be reasonably predicted.

To sum up, the idea proposed in this study will realize the dynamic analysis of the distribution of research topics and the uncover of related research development state in the specific field, to obtain some knowledge insights.

2.2. Data preparation

Through the advanced research function in *WoS*, the terms of HFT are selected as follows.

1) "High frequency trade" and "high frequency trading" are used as "Topic" to retrieval, then the author keywords included by the searched papers are collected.

2) Subject terms are covered from the relevant literature reviews (**Chung**; **Lee**, 2016; **Linton**; **Mahmoodzadeh**, 2018; **Virgilio**, 2019).

In terms of filtering rules set, the documents are restricted to research papers and reviews in English from 2000 to 2019 in this case. By this means, basic collected papers in the field of HFT were retrieved in *SCI*/*SSCI* and stored (including 20975 scientific papers[2]), then the author keywords were preprocessed.

Combining the timeline of HFT (**Budish**; **Cramton**; **Shim**, 2015; **O'Hara**, 2015) and the constant length method with equal distance, the duration is divided into four equidistant length periods of 5 years, namely 2000-2004 (Period I), 2005-2009 (Period II), 2010-2014 (Period III), and 2015-2019 (Period IV). The unique keywords and their co-occurrence relationship are counted through self-programming, and the research topic network data is saved in the required formats by period. The time-varying number of papers is shown in Figure 2. The number of relevant scientific papers in HFT is increasing year by year. According to the law of scientific literature growth and the Logistic Model of scientific literature (**Wang** *et al.*, 2021), HFT is still developing. With the increasing number of papers, the connotation and extension of HFT are constantly enriched. Therefore, the revealing and "distance reading" of the knowledge structure of HFT and the evolutionary context of research topics are urgent needs for scholars and practitioners in HFT, and these are of great significance to its future development.

> Taking HFT as a case, this study focuses on revealing and "distance reading" the knowledge structure of subject fields and the evolutionary context of research topics

3. Results

Taking HFT as a case, three main results of the evolutionary analysis of the research topic will be presented in this section, and there will be a brief explanation of data input and the set of tools.

3.1. Basic statistics of the research topic network

This study constructed an undirected co-keyword network sequence based on the processed author keywords of four periods to form the research topic network. Table 1 presents the basic statistical indicators for the research topic network. Nodes and Edges measure the size of the network and indicate the number of nodes and edges, respectively. Density used to measure the network's completeness is calculated using the equation:

$$2*\text{Edges}/(\text{Nodes}*(\text{Nodes}-1))$$

Average Degree of the node represents the mean value about the number of all connected edges of the node in the network. Average Weight Degree extra considers the weight of edge (i.e., the number of co-occurrences among author keywords in this case). Clustering Coefficient demonstrates a general sign of clustering nodes in the network, whereas Connected Components refer to the number of disjoint subgraphs in the network.

The analysis of Table 1 and the distribution of the basic dataset reveal the following:

- With the increasing number of scientific papers in HFT from Period I to Period IV, Nodes and Edges rise accordingly, but the Density shows a downward trend. It means that the increasing number of related papers is accompanied by the gradual size enlargement of the corresponding co-keyword network, and the research topics in the field show a greater diversity but more scattered.

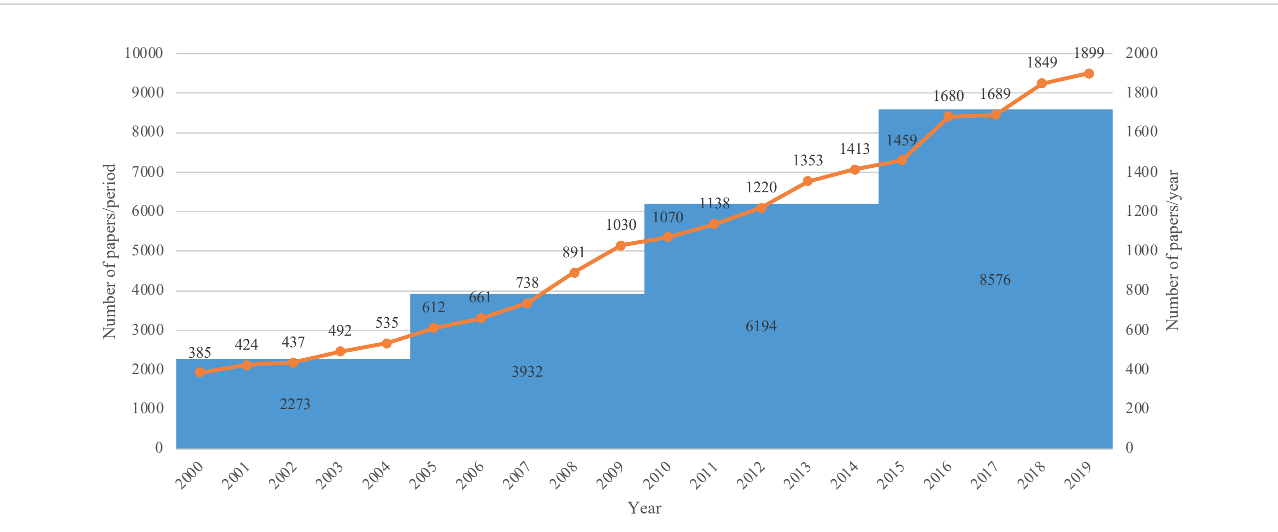

Figure 2. Distribution of scientific papers in HFT

Table 1. Basic statistics of the research topic network

Index	2000-2004	2005-2009	2010-2014	2015-2019
Nodes	675	1583	2793	4067
	--	(134.5%)	(76.4%)	(45.6%)
Edges	2607	8224	19883	32299
	--	(215.4%)	(141.7%)	(62.4%)
Average Degree	7.724	10.390	14.238	15.883
Average Weighted Degree	9.541	12.423	17.607	19.380
Density	0.01146	0.00657	0.00510	0.00391
Connected Components	14	8	11	15
Average Clustering Coefficient	0.398	0.375	0.444	0.435

Note: The numbers in parentheses in the table are the year-on-year growth rates of the corresponding indicators over the previous period.

- Average (Weighted) Degree of four co-keyword networks increases over time, which means more frequent connections and co-occurrence relationships among the research topics in HFT. However, the Average Clustering Coefficient shows fluctuating changes, indicating that their overall degree of aggregation does not lead to a clear trend.
- The Connected Components of four co-keyword networks change in a "√" type. PeriodII has the lowest component but the highest yearly growth rate on co-keyword network size. It can be inferred that Period IIhad an explosion in the number of studies compared with Period I, and scholars took the cognizance of the previous period study and carried out much follow-up research. These studies initially showed systematic trends and clear connotations. Scholars further diffused these connotations in the subsequent two periods.

3.2. Distribution and evolution of research topics

The co-keyword networks of four periods were imported into the *NEViewer* toolkit for evolutionary visualization and analysis. Using the Blondel partitioning algorithm and Radical-Tree layout, the looking nodes backward were set up. The resulting alluvial diagram is shown in Figure 3.

Figure 3 shows that the community evolution of research topics in the field of HFT has a high degree of continuity across four periods, with a few communities splitting or merging in general. Specifically,

- "incomplete market" split into "systematic risk" and "portfolio optimization" in Period II, and the latter further split in Period III;
- Both "volatility" and "financial market," which were ranked high and had large nodes in Period IV were split from "financial market" in Period III;

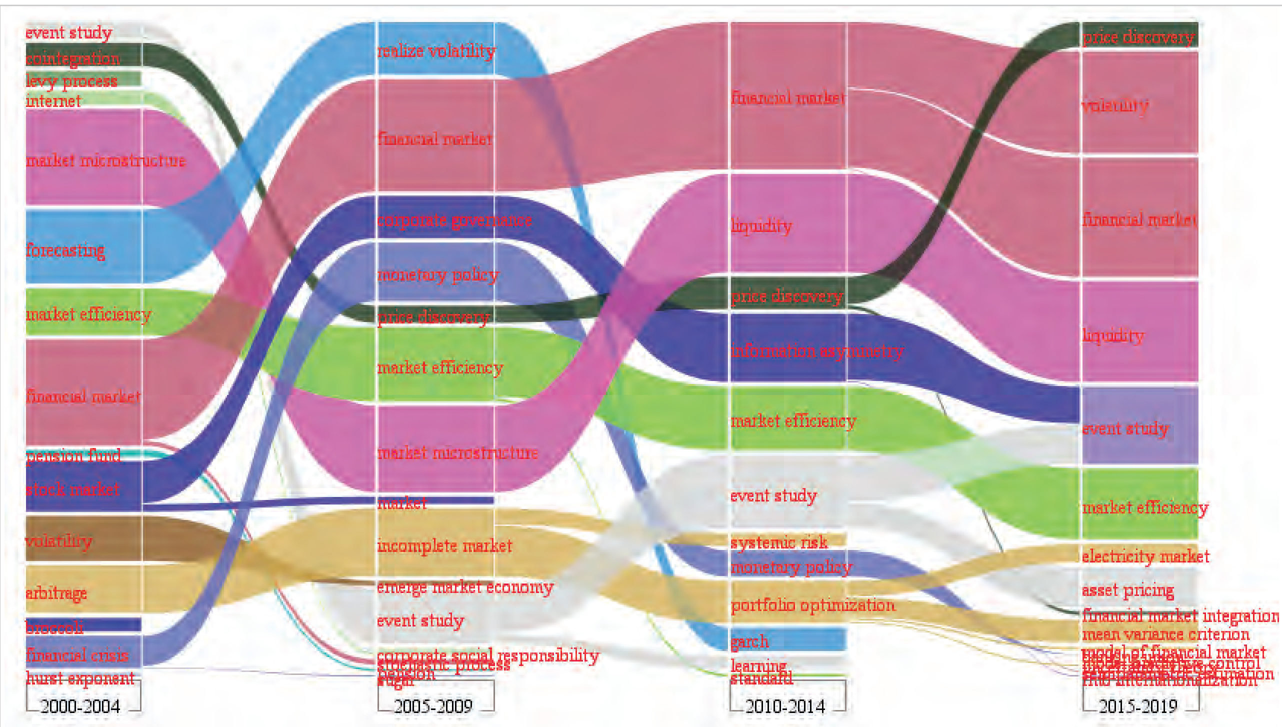

Figure 3. Alluvial diagram of community evolution on the research topics in HFT (Community similarity threshold equals 0.2)[3]

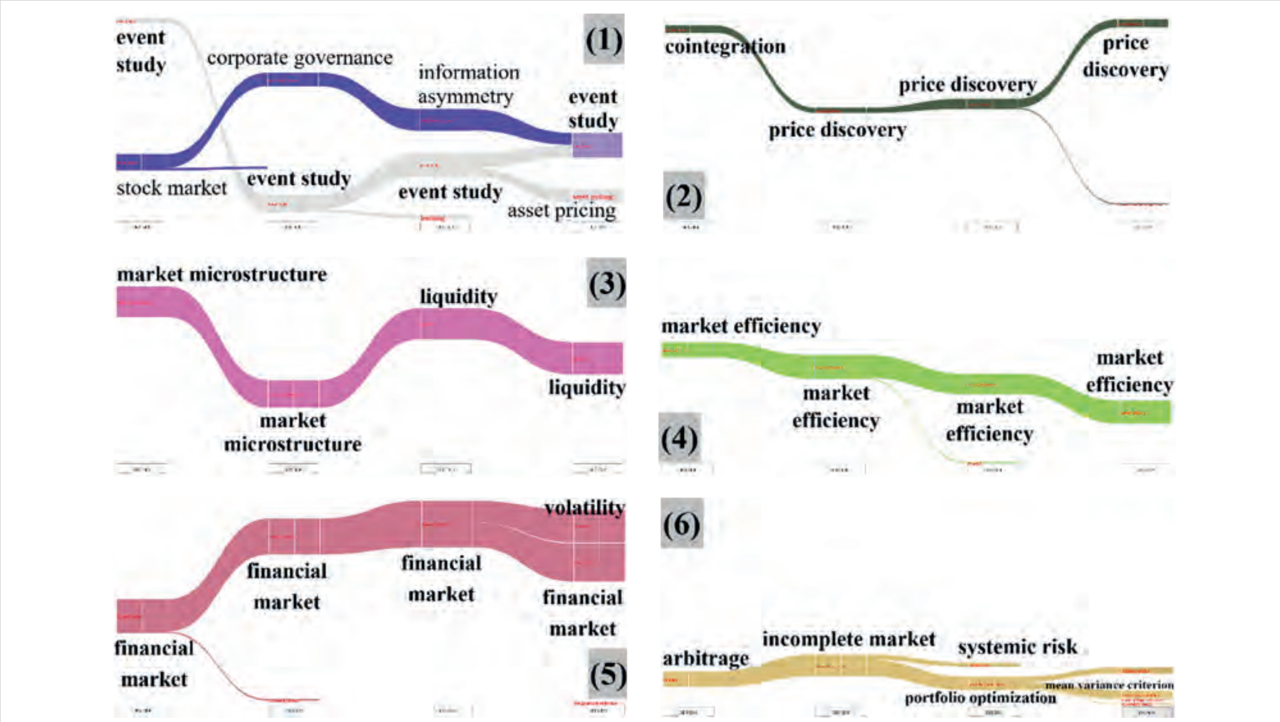

Figure 4. Main evolution paths of research topics in HFT

- In addition to the splitting in Period II and Period III, "event study" was also merging in Period IV, and it is the only convergence in the entire alluvial diagram.

There are six main paths in Figure 3, namely

1) event study,

2) cointegration & price discovery,

3) liquidity & market microstructure,

4) market efficiency,

5) financial market, and

6) incomplete market, as shown in Figure 4.

In the *NEViewer* output, Z-Value measures how closely one node relates to others in that community. It is an indicator that reveals the importance of nodes at the local level instead of the global. For the related communities in the above main evolution paths, their nodes are ranked by Z-Value, and the corresponding core nodes are shown in Table 2.

3.3. The structure and analysis of the co-keyword network of the latest period

To dig adequate information deeper into the research topic network, this study imported the CSV data of Period IV into *Gephi*. In *Gephi*, this study carried out the following operations:

1) selected the modularization function to cluster the nodes in the network;

2) color rendering was done according to the clustering of the nodes;

3) filtered out the nodes whose values are greater than 42 (6.5%);

4) adjusted the node size according to the degree; and

5) selected "Fruchterman Reingold" to adjust the layout of the nodes to complete the final visualization.

The structure of the co-keyword network in Period IV is shown in Figure 5.

Compared Figure 5 with Figure 3, it can be observed that the node size ordering in Figure 5 is the same as that of the color block size of the alluvial diagram. The communities with more nodes such as "financial market," "volatility," "liquidity," "event study" and "market efficiency" in Figure 3 have specifically distributed in Figure 5. This study counted the weights (i.e., the number of co-occurrence) of the top 10 in the network and their corresponding co-occurrence nodes, shown in Table 3.

Table 2. Core nodes in six main evolution paths of research topics in HFT

	2000-2004	2005-2009	2010-2014	2015-2019
1)	**event study**, **international financial market**, electronic commerce, **asset pricing**, **information and market efficiency**, abnormal return, merger and acquisition, monitoring, market value, labor market regulation	**corporate governance**, regulation, disclosure, merger, merger and acquisition, takeover, acquisition, cost of capital, real estate, signaling	information asymmetry, ***corporate governance***, *insider trading*, *acquisition*, *merger*, *merger and acquisition*, restructuring, informed trading, initial public offering, takeover	***event study***, ***corporate governance***, abnormal return, ***information and market efficiency***, china, *insider trading*, *acquisition*, *merger and acquisition*, emerge market, *merger*
	stock market, economic growth, **corporate governance**, globalization, financial integration, market, develop country, shareholder value, intermediation, accountability	***event study***, ***asset pricing***, ***information and market efficiency***, *trading volume*, ***international financial market***, *portfolio choice*, *bond interest rate*, heterogeneous belief, capm, *general*	***event study***, ***information and market efficiency***, ***asset pricing***, *trading volume*, *bond interest rate*, *general*, ***international financial market***, *portfolio choice*, *investment decisions*, general financial market	***asset pricing***, *portfolio choice*, *trading volume*, *bond interest rate*, *investment decisions*, ***international financial market***, monetary policy, foreign exchange, financial market and the macroeconomy, time series model
2)	**cointegration**, **price discovery**, vector autoregression, equilibrium, exogeneity, error correction, error correction model, mechanism design, seasonality, negotiation protocol	**price discovery**, market integration, **cointegration**, japan, granger causality, vector autoregression, consumption, stock price, spillover, liberalization	**price discovery**, **cointegration**, future market, china, causality, volatility spillover, commodity market, information share, commodity, granger causality	**price discovery**, **cointegration**, information share, future, pair trading, etf, commodity future, granger causality, exchange trade fund, ornstein uhlenbeck process
3)	**market microstructure**, **liquidity**, information asymmetry, **bid - ask spread**, insider trading, spread, market maker, tick size, execution quality, microstructure	**market microstructure**, **liquidity**, **bid - ask spread**, information asymmetry, microstructure, market quality, limit order, limit order book, order flow, trading cost	**liquidity**, **market microstructure**, high frequency data, **bid - ask spread**, volatility, limit order book, realize volatility, price impact, market microstructure noise, transaction cost	**liquidity**, **market microstructure**, high frequency trading, limit order book, information asymmetry, **bid - ask spread**, transaction cost, algorithmic trading, price impact, high frequency data
4)	**market efficiency**, capital market, **behavioral finance**, earnings management, disclosure, investor psychology, learning, accrual, account regulation, limited attention	**market efficiency**, **behavioral finance**, random walk, experimental economics, capital market, risk, analyst forecast, mispricing, overreaction, anomaly	**market efficiency**, **behavioral finance**, efficient market hypothesis, nonlinearity, predictability, anomaly, fundamental analysis, short selling, adaptive market hypothesis, risk	**market efficiency**, technical analysis, **behavioral finance**, trading strategy, return predictability, momentum, efficient market hypothesis, machine learning, cryptocurrency, bitcoin
5)	**financial market**, econophysic, stochastic process, herd behavior, fat tail, economics, random graph, percolation, business, heavy tail	**financial market**, econophysic, volatility, stock market, financial crisis, bank, emerge market, hurst exponent, efficiency, economic growth	***financial market***, *financial crisis*, *stock market*, *regulation*, *econophysic*, *finance*, crisis, institution, *neoliberalism*, globalization	volatility, *stock market*, forecasting, garch, realize volatility, exchange rate, oil price, stock return, volatility spillover, spillover ***financial market***, financialization, *financial crisis*, *regulation*, *finance*, european union, innovation, *neoliberalism*, financial development, economic growth
6)	arbitrage, **incomplete market**, transaction cost, hedge, utility maximization, equivalent martingale measure, martingale measure, insurance, contingent claim, pricing	***incomplete market***, utility maximization, transaction cost, hedge, insider trading, *backward stochastic differential equation*, arbitrage, markov chain, *hamilton jacobi bellman equation*, levy process	systemic risk, financial innovation, securitization, financial stability, credit risk, derivative, bank regulation, financial literacy, performance, equity premium portfolio optimization, value at risk, ***incomplete market***, *backward stochastic differential equation*, risk management, optimization, algorithmic trading, *levy process*, *dynamic programming*, *hamilton jacobi bellman equation*	mean variance criterion, stochastic control, investment, *hamilton jacobi bellman equation*, partial information, optimal investment, mean variance, *dynamic programming*, ***incomplete market***, time consistency

Note: The red font in the table represents the community label corresponding to Figure 3 and Figure 4, bold indicates the node that appears in all four periods in the same path, italics means that the node is involved in the splitting or merging of the community, and the underscore denotes the node in the same path that appears in the first three periods or the last three periods.

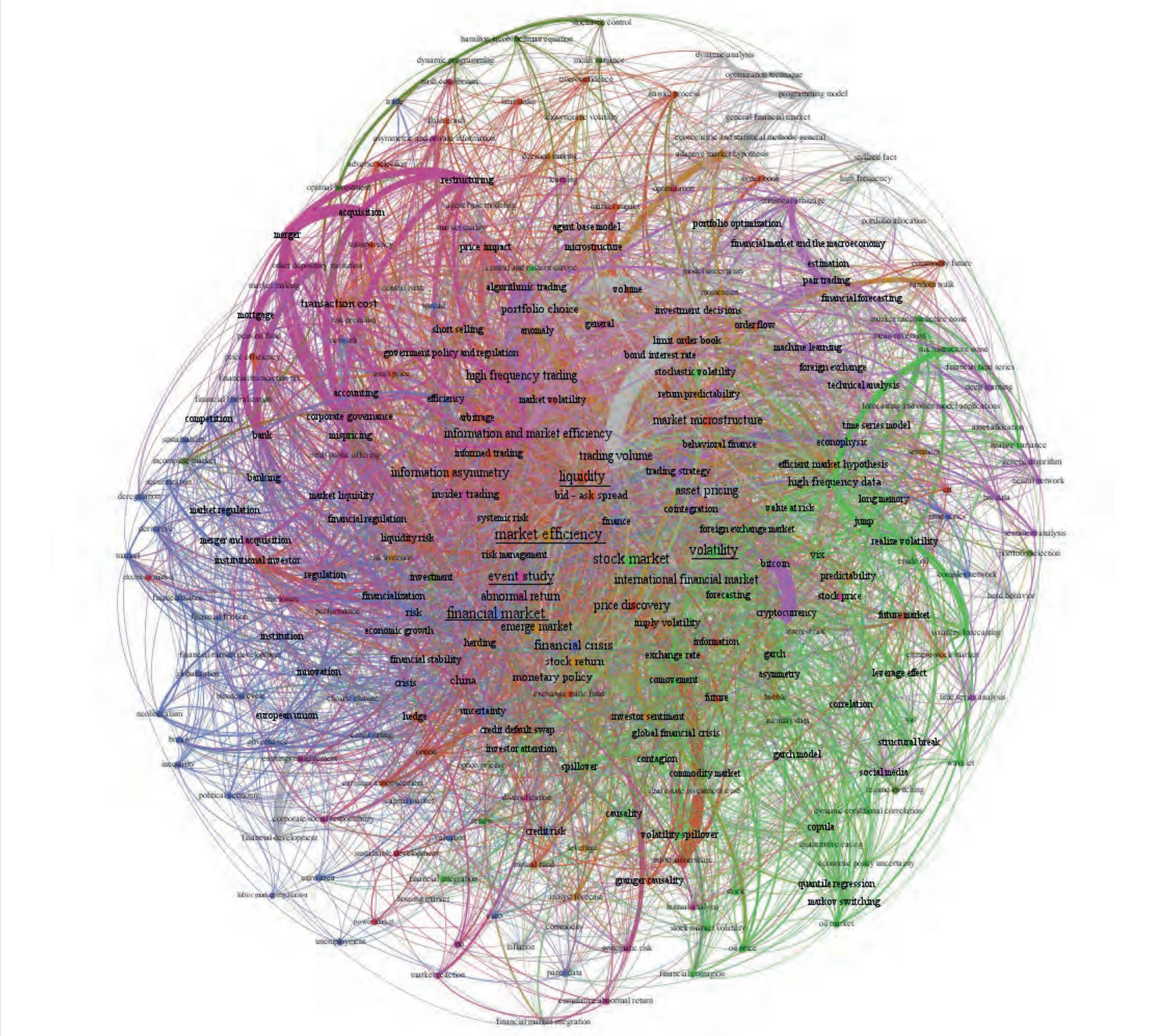

Figure 5. The co-keyword network topology of HFT in 2015-2019

Table 3. Top 10 co-occurrence in the co-keyword network of the last period

Rank	Node A	Node B	Weight
1	event study	information and market efficiency	69
2	asset pricing	bond interest rate	41
3	event study	abnormal return	40
4	asset pricing	trading volume	39
5	trading volume	bond interest rate	37
6	portfolio choice	investment decisions	32
7	high frequency trading	algorithmic trading	29
8	bitcoin	cryptocurrency	27
9	event study	trading volume	24
9	price discovery	information share	24
10	asset pricing	information and market efficiency	23

HFT and AT have the seventh-highest ranking of co-occurrences in the co-keyword network of Period IV. As discussed in the Introduction concerning HFT and AT, a deeper distinction between the two is necessary for relevant research and practice. To distinguish the two concepts objectively, co-occurrence times of them with other nodes were ranked in descending order, and the top 10 are shown in Table 4.

Table 4. Core nodes in co-occurrences with HFT or AT

Node A	Node B	Weight	Node A	Node B	Weight
high frequency trading	algorithmic trading	29	algorithmic trading	high frequency trading	29
	liquidity	17		**liquidity**	5
	market microstructure	13		market regulation	4
	limit order book	12		neural network	4
	market quality	9		machine learning	4
	market efficiency	8		**market efficiency**	4
	financial market	8		**market quality**	4
	price impact	6		**limit order book**	4
	flash crash	6		**price impact**	3
	statistical arbitrage	6		agent base model	3

Note: Bold indicates that nodes appear in both co-occurrence relationships.

Given 1) the current state of imbalance research and practice in HFT between emerging and international financial markets, 2) the ongoing societal discussion on the relationship of HFT with flash crash events, 3) the fact that behavioral finance always serves as the core node in the main paths and focused by several winners of the Nobel Economics Prize, 4) the continuing interest of relevant personnel in the accuracy and timeliness of forecasts on volatility, trends, and prices, etc., this case also uncovered the nodes frequently co-occurring, as shown in Table 5.

Table 5. Some important co-occurring relationships

Node A	Node B	Node A	Node B
emerge market	market efficiency	international financial market	asset pricing
	liquidity		portfolio choice
	international financial market		information and market efficiency
	event study		bond interest rate
	asset pricing		event study
	market microstructure		trading volume
flash crash	high frequency trading	machine learning	algorithmic trading
	limit order book		statistical arbitrage
	agent base model		big data
	systemic risk		high frequency trading
	herding		forecasting
behavioral finance	investor sentiment		trading strategy
	market efficiency		portfolio allocation
	financial crisis	deep learning	machine learning
	financial market		volatility prediction
	portfolio choice		high frequency trading
	efficient market		algorithmic trading
forecasting	volatility	big data	trading strategy
	realize volatility		machine learning
	stock market	neural network	algorithmic trading
social media	sentiment analysis		forecasting

4. Discussion

4.1. The distribution structure and evolution dynamics of research topics

The visualization analysis of the research topic network can reveal the knowledge structure of the specific field in periods and the evolutionary context of the research topics in this field. During 2000-2019, the research in HFT focused on event study, cointegration & price discovery, liquidity & market microstructure, market efficiency, financial market, incomplete market, and other research topics.

Compared with other main paths, the "event study" path has the most significant evolution process of splitting and merging. Scholars have made an extensive analysis of asset pricing and information & market efficiency in the international financial markets by event study method. There is a sub-path "corporate governance," where the related research concentrates on the financial condition, regulations, disclosure, insider trading, and merger & acquisition of the listed companies. Through the distribution dynamics of the corporate governance node and the comparison of related core nodes in Period I and IV, it can be found that the focus of related research has gradually transferred from international financial markets to emerging markets such as China.

The node size of related communities in "cointegration and price discovery" path is smaller, and its core nodes do not change much over four periods, which indicates that the related research topics of it are more concentrated. Besides, "price discovery" became the top community of the alluvial diagram in Period IV, suggesting that it was the most closely related to other research topics of HFT in 2015-2019. This path involves some financial mathematical and econometric analysis methods of price discovery and formation. The foci have gradually shifted from vector autoregression, equilibrium method, and error correction model to causality, information share model, and stochastic process. During 2000-2014, externalities, mechanism design, (volatility) spillover studies, and other issues were at the center of related research, while in 2015-2019, studies on the practice and application of pair trading and financial derivatives such as futures and exchange-traded funds were hot. Moreover, China was at the forefront of the core nodes during Period III, indicating that price discovery in emerging markets received extra attention from academia in 2010-2019.

The "market microstructure and liquidity" path is the only one without any split or merged, and its related topics have formed a more independent range of research. Bid ask spread received constant attention from scholars, but its enthusiasm had declined slightly in Period IV compared to other periods. It may be the result of an increase in the popularity of limit order, HFT, and other issues in 2015-2019. In 2000-2014, relevant research centered on the concepts of market microstructure such as market maker, tick size, limit order, order flow, trading cost, high-frequency data, and transaction cost, which may be one of the reasons for the increase in the heat of concepts such as HFT during 2015-2019. Besides, scholars kept a watchful eye on the concepts at the transaction-level, such as insider trading, limit order book, and transaction cost, and conducted research related to information asymmetry. Although some nodes like information asymmetry have emerged in the sub-path of event study, they underlined firm-level concepts, such as corporate governance and merger & acquisition. In addition, volatility and market microstructure noise also attracted the attention of academia from 2010 to 2014.

In the "market efficiency" path, the community centrality reduces over time, i.e., the interaction between market efficiency and other research topics in HFT is decreasing. This is contrary to the rise of the centrality of related communities in the "financial market" path, which may indicate that their evolution has a moderate correlation. Since the behavior of market participants affects the market efficiency, extensive research has been done on investor psychology, limited attention, random walking, overreaction, anomaly, efficient market hypothesis, adaptive market hypothesis, and other issues from the analytical perspective of behavioral finance. In 2000-2004, scholars paid attention to finance accounting related concepts such as earnings management, disclosure, accrual, and accounting regulation. Accordingly, they analyzed the impact of changes in factors such as financial behavior and accounting regulation of listed companies on market efficiency. During 2005-2009, experimental economics methods received attention from scholars. Several studies related to forecasting have been done in 2010-2019, including analyst forecasting, (return) predictability, etc. In addition, it could be found that the dominant approach to forecasting is gradually shifting from fundamental analysis to technical analysis. The overall research during 2015-2019 is biased towards the practice in the field of HFT, with concepts such as trading strategy, momentum, machine learning, cryptocurrency, bitcoin, and genetic algorithm gaining in popularity.

The node size of the relevant communities of the "financial market" is the largest in every co-keyword network, and its centrality in the research topic network is also relatively higher. However, perhaps because of the broad concept of the financial market, no other concepts of sustained interest are noticed in this path. From 2000 to 2004, scholars were concerned with concepts of mathematical characteristics such as stochastic process, fat tail, and heavy tail. Whereas, in the following 15 years, more attention was laid on concepts of market environments such as financial crisis, emerging market, stock market, economic growth, financial development, and globalization. Econophysics was the core node for the relevant communities in all the first three periods but did not sustain in the fourth. The reason may be that scholars paid more attention to the application of econophysics achievements in Period IV (e.g., prediction of the market volatility variation due to financial

> Six major topics in HFT: liquidity & market microstructure, market efficiency, financial market, incomplete market, cointegration & price discovery, and event study

crises by the dynamics). Overall, the nodes directly related to volatility, such as actual volatility and volatility spillover, only appeared in Period II and IV. Besides, "volatility" split from the presequence "financial market," became the second-largest community in Period IV. In 2015-2019, the relevant research on volatility concentrated on the measurement, forecasting, and the associated stock return and spillover. In addition, it also included the analysis of the stock market, exchange rate, oil price, and other research objects.

> The research focus about markets gradually transferred from international to emerging, meanwhile continuous attention to volatility/risk-related

The overall centrality of the "incomplete market" is the lowest among six main paths, and its associated communities split twice in Period II and III, suggesting that scholars are still exploring it. The sub-directions such as stochastic process, optimal control, and dynamic programming in operational research have been widely used in the research of incomplete market. In this path, the "portfolio optimization" community, which was split for the first time, continued the relevant research on stochastic processes and optimal control from 2005 to 2009. Its core nodes are backward stochastic differential equation, levy process, and Hamilton Jacobi Bellman equation, while also focusing on risk measurement and risk management. In 2010-2014, the "mean variance criterion" from the second splitting followed the middle Hamilton Jacobi Bellman equation and dynamic programming. Besides, financial innovation, securitization, financial stability, credit risk, financial literacy, and other issues attracted great attention to the community "systemic risk" from splitting in Period III, which were rarely covered by the relevant research in other periods, probably because of the sudden series of disruptive market events during 2010-2014.

4.2. Development state of the research in the field

By comprehensive analysis of the scale, main paths, and core nodes of the research topic network, reasonable study and judging of the development state of relevant research in the specific field can be realized. Related research during 2000-2019 in the field of HFT focuses on market microstructure, market efficiency, financial market, incomplete market, and other market-level research topics, as well as cointegration & price discovery, asset pricing, and others of price-formation-level. Event study is a common method in HFT. Volatility/risk is a concept commonly involved in all the above research topics. In recent years, the emphasis of research in HFT has gradually shifted from theory to practice and paid more attention to the related issues of financial innovation, behavioral finance, and operational research. Moreover, besides the research of the overall environment of international financial markets, emerging markets such as China have attracted more and more interest from scholars in recent years, especially in the related topics of event study and price discovery.

Additional details of the co-keyword network in the last period were also observed in this study.

- In the field of HFT, asset pricing, bond interest rate, and trading volume are closely related to each other.
- Among issues related to AT and HFT, liquidity is of prime concern to scholars. Meanwhile, concepts such as limit order book, market quality, market efficiency, and price impact often appear alongside AT and HFT. While discussing AT, the relevant research focuses more on market rules and technology. In comparison, research of HFT is concentrated more on market microstructure.
- In emerging markets, research on market efficiency is more prominent, while in the case of international financial markets, the research of asset pricing is the most preferred. Thus, the research on emerging markets in the field of HFT is more inclined to the market-level, while the research on major international financial markets was more inclined to the transaction-level.
- In addition to HFT, the research on the flash crash involves systemic risk and herding (effect) and other concepts.
- The relevant research on behavioral finance in HFT mainly examines its impact on market efficiency and efficient market.
- Volatility forecasting is more common in HFT than price and trends forecasting.
- Research related to social media within HFT focused on sentiment analysis. The common idea is to analyze investor sentiment and monitor the fundamental information through the algorithm models based on the public opinion data in social media and then apply it to the trading strategy and forecasting model to improve the return of the strategy and the accuracy of the model.
- Machine learning and other emerging technologies are widely used in the research and practice of HFT, referred to statistical arbitrage, forecasting, trading strategy, portfolio allocation, etc. Regarding prediction related research, it includes the application of deep learning technology and neural network model. Besides, the development and computation of HFT strategies utilize techniques such as big data and high-performance computing, which can give useful information in a large amount of information flow in a fast and timely manner.

Combined with the above discussion, this study can reasonably uncover the development state of research and practice in HFT. Research in the field of HFT is still developing, and the paper counts will continuously increase in the coming years. Market-level research on market microstructure, market efficiency, financial market, incomplete market, and price-formation-level research on cointegration & price discovery, asset pricing price, etc., still are the focuses of future research in the field of HFT. These studies will pay more attention to emerging markets in the overall international financial market environment. The achievements in the fields of behavioral finance, econophysics, and operations research, as well as techniques such as big data, machine learning, and deep learning, will be further applied in the research and practice of HFT, such as forecasting, trading strategy formulation, portfolio allocation, and risk management. The relevant research and practice of predicting will use more technical analysis methods and fundamental analysis methods combined with macroscopic, mesoscopic, and microscopic factors in the future. With a series of landmark financial events that occurred in recent years, such as the meltdown of U.S. stocks and the dive in oil prices, it is expected that future research in HFT will be more concentrated on the consideration of systemic risk in terms of financial innovation and market stability.

> The emphasis will change from theory to practice, technologies (big data, etc.) and theories (behavioral finance, etc.) will have more interaction with HFT

5. Conclusions

This study proposed a general idea for the evolution analysis of research topics based on the research topic network. Taking the emerging field of HFT as a case, the distribution dynamics of the research topic in HFT are systematically uncovered, and then the development state of the relevant research is comprehensively studied and judged, which proved the effectiveness of the proposed idea.

Concretely speaking, a variety of methods and tools of scientometrics are used to analyze the 20975 papers of HFT published in journals indexed by *SCI*/*SSCI* from 2000 to 2019. This study,

- quantitatively characterized the status quo of research in the field;
- systematically explored the major research topics and their macroscopic shifts process as well as the transfer of research focus reflected by the two;
- clearly analyzed the microscopic details of research in the field and the connotation of related concepts; and
- reasonably inferred and predicted the future development state of the related research.

Furthermore, this study has found that

1) the knowledge structure of specific field reflected by the community distribution of research topics, that is, the research of HFT focuses on six major topics related to market-level and price formation (liquidity & market microstructure, market efficiency, financial market, incomplete market, cointegration & price discovery, and event study).

2) The evolutionary context and focus transformation of related research in the field is reflected by the main evolution paths of the research topic and the changes of its core nodes. The focus of HFT research has gradually transferred from international financial markets to emerging markets such as China, but volatility/risk-related studies have been continuously concerned by the academe and the industry. The emphasis of research in the field of HFT has been changing from theory to practice and paid more attention to the related topics of financial innovation, behavioral finance, and operations research.

3) The structure of the network in the latest period reflected that the focus of future research in the HFT field will gradually shift from theory to practice. Relevant technologies such as big data, machine learning, and deep learning, and theories such as behavioral finance, econophysics, and operations research will have more interaction with the research and practice of HFT in the future. The related research and practice of predicting in HFT will use more technical analysis methods and fundamental analysis methods combining macroscopic, mesoscopic, and microscopic factors.

4) The results of this case indicate that in the next few years, an emerging research field in finance-HFT will be paid more attention by scholars, and the number of relevant scientific papers will continue to increase accordingly. The research in HFT will continue to focus on the related topics of market-level and price formation and be more concentrated on the consideration of systemic risk, while the further development of emerging markets in the overall international financial market environment will attract more attention from academia and industry.

The research idea proposed in this study, through the scientometrics analysis of the research topic network in the field, effectively reveals the distribution dynamics of the research topics and scientifically uncovers the development state of related research in the specific field. Since this, professional knowledge and insights can be obtained. This paper focuses on the production dimension in scientometrics without further consideration of the impact, and there are limitations in the case analysis. On the one hand, the choice of data may be conservative. This case only analyzed the scientific papers published in the *SCI* and *SSCI* journals and did not consider other scientific literature, such as conference papers, working papers, and monographs, etc. In addition, there are some journals that do not require authors to provide keywords, therefore this case failed to include papers in these journals. On the other hand, although this case has adopted a diversified way to select the terms in HFT, there is still no guarantee that some other topics associated with HFT have not been omitted, which may limit the depth of the analysis and discussion in this case to a certain extent. Overall, the research idea proposed in this study provides an effective reference for the development of professional subject knowledge services such as topic selection guidance, hotspot recommendation and trend analysis in the era of big data.

6. Notes

1. We note that a conference paper (**Chou**; **Lee**; **Hung**, 2016) presents the objectives of a study using bibliometric analysis of HFT without specific study content and findings.

2. Among *WoS* Index, 24250 papers were obtained by search formula TS=("high frequency trad*" OR "algorithmic trad*" OR "alternative trading" OR "alternative trading system" OR "electr* trad*" OR "dark pool*" OR "dark liquidity" OR "market microstructure" OR "market quality" OR "pair* trad*" OR "flash* trad*" OR "flash crash" OR "insider trad*" OR "tick size" OR "market maker*" OR "market making" OR "informed trad*" OR "bid-ask spread*" OR "exchange server*" OR "market volatility" OR "abnormal profit*" OR "abnormal return*" OR "order-to-trade ratios" OR "financial transaction tax" OR "Regulation NMS" OR "MiFID II" OR "minimum order resting time*" OR "floor trading" OR "price discovery" OR "limit order book" OR "market efficiency" OR "flow toxicity" OR "financial market*" OR "market regulation*") AND PY=2000-2019 AND LA= "English" AND DT=("Article" OR "Review") NOT DT= "Early Access", and 21083 papers remained after screening. After data inspection, 108 papers from 2020 were identified and excluded, and the final dataset contained 20975 papers.

3. The rectangular color blocks represent communities, the red label is the node with the highest Z-Value in the community, and the size of the color block means the number of nodes contained in the community. The colored streamlined curves between the blocks in each period show the splitting and merging process of a community in a specific time, which makes people understand more vividly the evolutionary trajectory and trend of the research direction. The vertical order of the color blocks in the period indicates the centrality of the research topic, and the corresponding community at the top is most closely related to other communities.

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The (in)visibility of women in the press specializing in literature: an analysis of the presence of women writers in Spanish cultural supplements

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Abstract

This paper aims to dissect the presence of female writers in the main four cultural supplements of Spanish reference press: *Babelia* (*El país*), *Cultura|s* (*La vanguardia*), *El cultural* (*El mundo*) and *ABC cultural* (*ABC*). For this, we analyzed the "books of the year" recommended between 2010 and 2021 (n = 1,286), as well as the juries in charge of elaborating these ranks. The results show the subsidiary role reserved for women in this sphere of cultural informtion: they barely author 25.3% of the selected books, although some degree is progress is observed in the historical series, after going from 4.8% in 2011 to 37.8% in 2020. The increase in the presence of women in the juries has contributed to this phenomenon –the correlation between ratio of women in both lists being staticsally significant (r_s = 0.647, p < 0.001)–, together with the commitment of supplement such as *Babelia* and *Cultura|s* to literature written by women. On the contrary, there still seem to be pockets of exclusion in *El cultural* and *ABC cultural*, which reduce the visibility of work of female writers in Spain. According to our findings, women authors stand out for their youth (they are between 8 and 20 years younger than men, depending on the indicator), cosmopolitism (there are more foreign female writers, especially American, than Spanish) and origin (mainly, Madrid and Barcelona). This article evinces the collective imaginary, settled for centuries, by which literature was considered a men's affair, and reflects on the role of cultural journalism and its prescriptive function when it comes to breaking down gender stereotype –a task that, in view of the data provided in this paper, is still far from been completed.

Keywords

Journalism; Cultural journalism; Literature; Gender studies; Women; Culture; Feminism; Gender gap; Writing; Media; Reading; Writers; Spain.

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1. Introduction

Since its appearance as a vehicle for mass communication, the press has contributed to cementing the prestige of many writers through the exercise of criticism (**Vallejo**, 1993; **Armañanzas**; **Díaz-Noci**, 1997). Although in theory this is an impartial task, unrelated to personal considerations, there are several dysfunctions attributed to this genre, including, but not limited to, cronyism, elitist discourse, submission to the dictates of the industry, etc. (**Carrasco-García**; **García-Borrego**, 2020). There have also been accusations, from certain fields, of authors being treated differently according to their gender, always to the detriment of women (**Freixas**, 2000; 2003; **Obligado**, 2003; **Castellanos**, 2005).

This research aims, through an analysis of the "books of the year" lists published by the cultural supplements of the reference press, to determine the relevance that specialized journalistic criticism gives to women writers in Spain, with the ultimate objective of clarifying whether, in fact, they suffer discrimination when compared with the male group.

1.2. The prescriptive role of cultural journalism

Cultural journalism is distinguished from other areas of specialization by playing a dual role: on the one hand informative, and on the other prescriptive. The huge volume of innovations generated by the cultural industries requires the intervention of a specialist whose expert criteria can help the audience discriminate those creations that deserve real attention (**Rodríguez-Pastoriza**, 2006; **Garbisu**; **Blanco**, 2019).

As part of this orientation task, the cultural journalist must strive to enhance the comprehension of the full meaning of the works on which they report. This is what is called, especially in foreign literature, "cultural intermediation" (**Bourdieu**, 1991; **Moreno**, 1994; **Barei**, 1999; **Janssen**; **Verboord**, 2015). In this area, the professional, in their classic role of gatekeeper, selects, hierarchizes, prescribes, and helps to enhance the judgment of readers, thereby finally influencing the cultural agenda (**Tubau**, 1982; **Rivera**, 1995; **Garbisu**; **Blanco**, 2019). The prescriptive role is exercised principally through the means of criticism, and in the field of literature studied herein, cultural supplements are usually the medium through which this is concentrated. This is there

> "where books and their authors find the best and most specialized stage to become well known" ["*donde los libros y sus autores encuentran su mejor y más especializado territorio para darse a conocer*"] (**Rodríguez-Pastoriza**, 2006, p. 33).

After having gone through an expansive period at the end of the twentieth century (**Montero**, 2005), the situation today is less hopeful because of two convergent crises hovering around the large supplements, which jeopardize their dominant position: closures and staff reductions in recent years, and the strength of and competition from new Internet narratives compared with traditional formats (**Garbisu**; **Blanco**, 2019, p. 29; **Carrasco-Molina**; **García-Borrego**, 2020)

Within the framework of this research, studies that have analyzed literary criticism on the basis of the identity and attributes of the authors reviewed are of interest. In this regard, **Muñoz-Fernández** (2017) addressed the case of *Babelia*, published by *El país*, noting this supplement's preference for works from publishers belonging at the time to its parent company *Prisa* (*Alfaguara*, *Taurus*, *Punto de Lectura*, etc.), and the preferential treatment, in terms of both praise and space, given to in-house writers, such as Javier Marías, Arturo Pérez-Reverte, Antonio Muñoz Molina, Almudena Grandes, and Juan José Millás. It is concluded that "the power flows of the large publishing industry" ["*los flujos de poder de la gran industria editorial*"] are very evident in *Babelia* (**Muñoz-Fernández**, 2017, p. 298). Another recent work (**García-Borrego**; **García-Cardona**, 2021) focuses on the origin of the writers most valued by the main cultural supplements, calling attention to the predominance of the Madrid–Barcelona axis compared with other geographical focuses. However, there is hardly any work on the issue of gender.

1.2. Literature and women

The place occupied by women in the field of literary creation constitutes a conquered (though incomplete) space, after centuries of discrimination (**López-Cabrales**, 2000) and severe conflict with a patriarchal tradition that has singlehandedly tried to keep the female collective imprisoned in the private sphere (**Lozano**, 2017). During the Modern and much of the Contemporary Age, the practice of literature by women, when it was achieved, was often underestimated by the masculine class and interpreted not only as a betrayal of their natural reproductive role, but also as a renunciation of femininity (**Hélédut**, 2018). Contempt for women's literary ability has been commonplace in Western culture "since Juvenal in the first century AD until André Gide, Witold Gonbrowicz, or Roberto Arlt" ["*desde Ju-*

> The place occupied by women in the field of literary creation constitutes a conquered (though incomplete) space, after centuries of discrimination

venal en el siglo I d. C hasta André Gide, Witold Gonbrowicz o Roberto Arlt"] in contemporary times, through Molière, Quevedo, or Croce (**Freixas**, 2000, pp. 87, 229). Undoubtedly, the wages of women writers were meager until well into the nineteenth century, although the reason has little to do with the supposed quality of the work itself. As **Woolf** (2016) stated, the lack of "a room of their own," that is, economic independence and access to culture, has traditionally hindered the possibilities of women to devote themselves fully to writing. Moreover, once finally able to enter the world of creation, the path is not free of pitfalls, because women have to compete in a world of men and are forced to

> "deal with the literary, social, and political guidelines established by that dominant group" ["*lidiar con las pautas literarias, sociales y políticas establecidas por ese grupo dominante*"] (**Martín-Gaite**, 1987, p. 31).

For **Blanco and Williams** (2017), literature written by women has been forgotten and ignored for years because it reflected stories that could hardly be published because of scarce interest from publishers.

Even so, after centuries of discrimination, the profession of the woman writer is now readily accepted, though there are still many fields in which women are clearly sidelined. One of these, related to the rankings addressed in this article, is that of the literary canon, whose nature is clearly masculine (**Grandes**, 2003) as a result of secular prejudices (**Arambel**, 2001). This canon, written by men, has discriminated against women through silence and oblivion (**García-Jaramillo**, 2019; **Sánchez-Martínez**, 2019). In fact, Bloom's well-known "Western canon" (1995) only accepts four women writers (Jane Austen, Emily Dickinson, George Eliot, and Virginia Woolf) compared with 22 men writers. In Spain, women writers were decisively excluded from the literary canon in the post-war period (**Nueva**, p. 2004), and it was only in the 1970s that their inclusion began (**Ruiz-Guerrero**, 1996; **Castro**, 2002). As a result of this silencing, women are on the periphery of compulsory education teaching programs. Recent studies (**López-Navajas**, 2014; **Sánchez-Martínez**, 2019) reveal that only 7.5–12% of the works included in literature in school grades 10–12 were by women writers, an undeniably low rate.

Nor does the women's collective have a prominent presence in cultural institutions. The first woman to enter the *Real Academia Española* (*RAE*) was Carmen Conde, and only in 1979. After her, ten more women have been incorporated[1], but in the global historical calculation, women represent just 11 out of 486 members, and today women account for 7 out of the 40 academics. In its 309 years of existence, the *RAE* has never had a female director. In short, (at least partial) invisibility seems to be one of the characteristics of women who write.

Another, more subtle obstacle that has been highlighted by various studies is the discriminatory attitude with which some of the criticism, written by men in the vast majority of cases (**Freixas**, 2003), regards women's writing[2], as well as the derogatory association of women's literature with nonfiction genres by those who use this to point toward women's creative incapacity (**Freixas**, 2013; **Usoz-de-la-Fuente**, 2017). In fact, for **Huertas** (2003, p. 192), the problem of women's literature in Spain does not lie in whether it is published or not –it is obvious that it is, "because it sells" ["*porque vende*"]– but in the differentiated treatment it receives once published compared with works written by men. This treatment, supported by the simplifying and condescending focus on "the feminine," clearly conditions and limits the scope of women's writing (**Obligado**, 2003).

In one of the few quantitative approaches to this problem, **Freixas** (2003) analyzes reviews from five national newspapers and four specialized magazines, and concludes that the adjective "feminine" applied to literature is always identified with unequivocally pejorative terms such as "feminist," "intimate," "commercial," or "personal," as opposed to "universal." The axiom seems to be that a female work, that is, of women or for women, "is bad"; and the opposite finding, which is also reached at times, does not in any case serve to dismantle this fallacy, but is rather considered the exception that confirms the rule (**Freixas**, 2003, p. 103).

Beyond the convenience of updating and systematizing the evidence that supports all these considerations, the truth is that they refer, without doubt, to a historically unequal inclination on the part of the cultural press.

1.3. Women and the publishing market in Spain

Women began to enter the publishing market in Spain in the 1970s, albeit timidly. Then, in the 1990s, the boom of "women's literature" arrived (**Caballero**, 2003, p. 109), a phenomenon often referred to as a simple marketing strategy (**Hélédut**, 2018) and supported by an intense advertising campaign that sought to maximize sales (**Castro**, 2002).

Obligado (2003, p. 87) states that the market imposes on women

> "an easy-to-digest literature, superfluous to the female condition, plagued by good feelings, eroticism, or scandal" ["*una literatura fácil y digestiva, redundante de la condición femenina, plagada de buenos sentimientos, de erotismo o de escándalo*"].

She is not the only one to find the field to be too restricted for women writers, whose creativity is constrained by the imposition of the publishing industry on genres such as "highly lyrical" ["*muy, muy lírica*"] poetry, autobiographical novels, diaries, or children's literature (**Grandes**, 2003, p. 61).

> The aim of this study is to clarify whether literature written by women receives discriminatory treatment by specialized reviewers

Despite all these limitations, women's literature has gained ground in the twenty-first century. Two decades ago, **Freixas** (2000) estimated that it represented 20% of the total works published in Spain[3]. Today, this fraction, measured by official data, has clearly progressed. The latest statistics from the Spanish *Ministry of Culture*, corresponding to the 2020 fiscal year, indicated that 38.5% of all titles published by a single author were written by women writers. This fraction has seemed to grow steadily since the historical series began in 2017 (*Ministry of Culture*, 2021a), as demonstrated in Table 1.

Table 1. Works registered in the ISBN by men and women since the beginning of the historical series (2017–2020)

	2017	2018	2019	2020
Women	33.2%	34.2%	37.3%	38.5%
Men	60.0%	65.3%	62.2%	61.1%
Not classified	6.8%	0.5%	0.5%	0.3%

Source: *Statistics of the Spanish edition of books with ISBN 2020* (Spanish *Ministry of Culture*, 2021a).

The inequality, in any case, is clear. The breakdown by gender shows differences that help to better define the influence of each group when focusing on narrative works, which is the most common reference field from the rankings of cultural supplements. In the strictly literary field, just over one-third of titles are written by women (35.5%), a fraction that increases if one includes children's and young adult books, which are usually included in the field of fiction and where female authorship is in the majority. Doing this, this percentage increases to 41.2% of all works registered in the ISBN.

Other cultural indicators also reflect a clear situation of inequality, although again tending towards convergence in recent years. For example, in 2020, 36.5% of the first intellectual property rights registrations for book authorship were made by women; a decade earlier, in 2010, this fraction stood at 29.7%. In the field of literary works, this percentage increased during the mentioned period from 34.6% to 41.3% (*Ministry of Culture*, 2021b).

On the other hand, it is women who maintain reading rates that are clearly higher than those demonstrated by men, a phenomenon observed for decades in both studies prepared by the public administration (**Gil-Calvo**, 1993) as well as reports from the private sector (*SGAE*, 2000). The *Cultural habits and practices survey* (*Ministry of Culture*, 2011; 2015; 2019) also reflects this, and even more strongly in its most recent rounds (Table 2). The most recent measurement of the *Federación de Gremios de Editores de España* (2021) coincides with this diagnosis, although clarifying that this phenomenon still occurs to a lesser extent than in other places, for example, English-speaking countries.

Table 2. Fraction of people who read books in the last year (2010–2019)

	2010-2011		2014-2015		2018-2019	
	Women	Men	Women	Men	Women	Men
For work or study	24.5%	30.3%	27.3%	30.9%	31.9%	35.1%
For other reasons	57.2%	47.2%	62.3%	49.4%	65.1%	53.5%
Total	61.2%	56.0%	66.5%	57.6%	69.4%	62.0%

Source: *Cultural habits and practices survey* (*Ministry of Culture*, 2011; 2015; 2019)

The conclusion is that women produce fewer books but consume them to a greater extent than men, partly because they attach a greater importance to reading. On a scale from 1 to 10, women scored an average of 6.9, compared with 6.0 from men. However, regarding the type of works read, the differences are less obvious, except in the categories of romantic novels (read by 20.1% of women versus 2.9% of men), science fiction novels (15.9% of men, 9.4% of women), and historical works (13.8% of men, 8.7% of women). Some features are thus distinctive, but not so marked as to depict wholly opposing reader profiles, and even more so if one takes into account that the ministry's survey, taken here as a reference, examines 13 categories of fiction as well as nonfiction, in most of which the percentages are similar. Likewise, and related to the aim of this study, it is striking that women are also the greatest readers of the cultural supplements of Spanish newspapers (*AIMC*, 2021), although their number is declining year on year. In relation to the publishing market, sales figures are a matter of importance. At the time of the boom in women's literature, there was the idea that books written by women obtained greater commercial success. However, this myth was already refuted two decades ago by **Freixas** (2000, pp. 33-35), who considered it to be a manipulation by the media, who still saw women writers as a novelty worthy of being highlighted and receiving greater visibility than their male counterparts. Today, the landscape may have changed. In Spain in 2021, women were the authors of 51% of the total number of copies sold, considering the 50 most popular titles (**Manrique-Sabogal**, 2021).

Finally, one should mention one aspect of the book industry that is noticeably prejudiced in terms of the aforementioned biases against women writers: literary awards. According to data from the *Observatori Cultural de Gènere*, in Spain only 20% of awards are given to women, who approach parity only in the category of narratives for children and young adults (**Gómez**, 2018). Even so, there is a common argument that women usually receive the most commercial awards in order to stimulate sales, while the prestigious prizes for criticism go to men (**Obligado**, 2003). However, the truth is that, if you look at the list of winners of the most important prizes, there is no trace of such a dichotomy and indeed a clear male predominance reigns. This is the case of the *Cervantes Prize* (41 men versus 6 women[4]), *National Narrative Prize* (8 women in 98 years), *National Prize for Spanish Literature* (6 women in 37 editions), *Critique Prize* for narrative works (59 men and 5 women), *Planeta Prize* (18 women in 70 editions), and *Nadal Prize* (18 women winners in 78 years). None of these figures allows us to conclude that literary awards, whatever their nature, are preferably endowed on women; on the contrary, they reinforce the unequal profile of the Spanish book industry. In the international arena, it is enough to consider the *Nobel Prize in Literature*, which has been awarded to 16 women as opposed to 102 men.

2. Aims

Given the state of this issue, the broad objective of this study (O1) was to analyze the presence of women in the rankings of the Spanish national press cultural supplements, considering both the authorship of the selected works and the composition of the juries in charge of choosing them. This was intended to clarify whether literature written by women receives discriminatory treatment by specialized reviewers, and the extent to which this hypothetical difference may be conditioned by inequalities in the configuration of the juries, which are usually formed by experts from the humanities, from cultural journalists to writers.

In addition, three secondary objectives were established. The first was to evaluate the existence of differences between the selected titles, trying to establish whether there are different levels of female visibility (O2); the second, to describe how the attention paid to women by literary critics has evolved in Spain over the last decade, if at all (O3); and the third, to outline the profile of the women writers highlighted by the literary supplements, paying attention to factors such as age, nationality, or region of origin (O4).

3. Methodology

3.1. Research design

This research was carried out using the content analysis technique, which offers high reliability for the thorough study of journalistic messages (cf. **Krippendorff**, 1990; **Neuendorf**, 2002; **Igartua**, 2006), taking as a study population the main cultural supplements published in Spain according to official distribution figures (*OJD*, 2021): *Babelia*, published by the newspaper *El país*; *Cultura|s*, from *La vanguardia*; *ABC cultural*, from *ABC*; and *El cultural*, from *El mundo*[5]. The sample was made up of the issues that typically highlight, in a balanced way, the most relevant works of the last 12 months, or the "books of the year." All of them, usually published in December, were retrieved from the media's own digital newspapers, from external repositories such as MyNews, or from the physical library archives of the authors' offices. To provide a certain diachronic perspective, a study period of just over a decade, covering 2010-2021, was chosen.

In total, 44 examples from the sample period were analyzed[6]. Titles of works and names of the jurors that appeared were extracted for analysis.

3.2. Data analysis

In the absence of quantitative precedents for this type of research, the analysis sheet that was applied to the books recommended in each supplement was prepared ad hoc after reviewing the topic to identify the most relevant parameters and discussion with experts from the publishing sector and gender studies. It included the following variables:

- Name of the supplement. Measured as a nominal variable (four possible values: *Babelia*, *Cultura|s*, *ABC cultural*, *El mundo*).
- Year of publication of the supplement. Measured as an ordinal variable (12 values between 2010 and 2021).
- Position of the work in the ranking. Measured as an ordinal variable (50 values between 1 and 50).
- Author's gender. Measured as a nominal variable based on the gender of the author(s) of the work (Man/Woman/Mixed[7]).
- Nationality of the author. Measured as multiple nominal variables according to the nationality or nationalities available for each author (each value representing a country, added ad hoc as they appeared in the list).
- Author's region of birth. Measured as a nominal variable according to the region in which the author was born (19 values, one for each of the Spanish autonomous regions or cities). Applicable only to writers of Spanish nationality.
- Age of the author. Measured on a scale according to the author's age at the end of the year in which their work was mentioned.
- Author's year of birth. Measured as an ordinal variable (10 values when using 10-year periods, or 4 values when using 25-year periods).

An ad hoc sheet was also applied to the jury members, consisting of three items: name of the supplement, year of publication (identical values to the sheet designed for the books), and gender of the jury member (in this case, the values were reduced to Male/Female).

Once all the data had been collected, they were analyzed using *Microsoft Excel* to obtain descriptive statistics and *SPSS* for inference analysis.

3.3. The sample

After collating the selected examples, a total of 1286 titles were obtained for analysis, distributed as shown in Table 3 (where the value 0 corresponds to rounds of the ranking that were not published or could not be located).

Table 3. Number of books analyzed per supplement and year (2010–2021)

	Babelia	*Cultura|s*	*El cultural*	*ABC cultural*	Total	%
2010	29	0	25	0	54	4.2%
2011	25	0	25	12	62	4.8%
2012	20	30	30	13	93	7.2%
2013	20	30	25	13	88	6.8%
2014	20	20	30	13	83	6.5%
2015	20	30	47	0	97	7.5%
2016	20	30	45	25	120	9.3%
2017	20	30	45	23	118	9.2%
2018	50	30	35	22	137	10.7%
2019	50	45	45	6	146	11.4%
2020	50	30	50	5	135	10.5%
2021	50	30	50	23	153	11.9%
Total	374	305	452	155	**1,286**	
%	29.1%	23.7%	35.1%	12.1%		

The members of the jury reached a total of 1049 (Table 4). In this analysis, ten of the analyzed rounds did not identify the members of the jury that prepared the rankings, an effect found especially for *Babelia* and *El cultural.*

Table 4. Number of jury members per supplement and year (2010-2021)

	Babelia	*Cultura|s*	*El cultural*	*ABC cultural*	Total	%
2010	55	0	0	0	55	5.2%
2011	57	0	0	12	69	6.6%
2012	0	2	0	13	15	1.4%
2013	0	15	0	13	28	2.7%
2014	0	1	55	13	69	6.6%
2015	0	28	53	0	81	7.7%
2016	43	17	53	3	116	11.1%
2017	50	21	49	21	141	13.4%
2018	40	28	29	22	119	11.3%
2019	0	14	26	0	40	3.8%
2020	100	22	27	22	171	16.3%
2021	75	21	26	23	145	13.8%
Total	420	169	318	142	**1,049**	
%	40.0%	16.1%	30.3%	13.5%		

4. Results

4.1. Women in the rankings and in juries of the cultural supplements

Overall, the data for female representation reflect a clear inequality, with only 25.3% of the works featured over the past 12 years being written by women (Table 5). However, this proportion varied according to the supplement considered; thus, *Babelia* reached 33.4%, while *ABC cultural* remained at 14.2%. Parity, understood as the presence of at least 40% of women in the lists, was only recorded in nine rounds (20.4% of the total)[8].

This historical perspective allows us to draw a clear dividing line in 2015. In the *Babelia* ranking from that year, 60% of the selected authors were women, while in *Cultura|s* this fraction was 30%, and 25.5% in *El cultural* (while this percentage had never surpassed 16% previously). Since that date, the global sum of works by women has always been around a third of those selected, with certain supplements tending to increase equity but others less so (*ABC cultural* and, especially, *El cultural*). *Babelia* was the only publication for which at least 50% of the rankings reached parity (the rest averaging 9.3%, with *El cultural* stuck at 0%), and reaching 50% in a quarter (of the other supplements, only *ABC cultural* does so, and only on one occasion). However, it should be highlighted that in some years the majority of women writers are concentrated in the least prominent positions in the classification, at number 30 or below. This is the case, for example, in 2016, so this equality is more apparent than real.

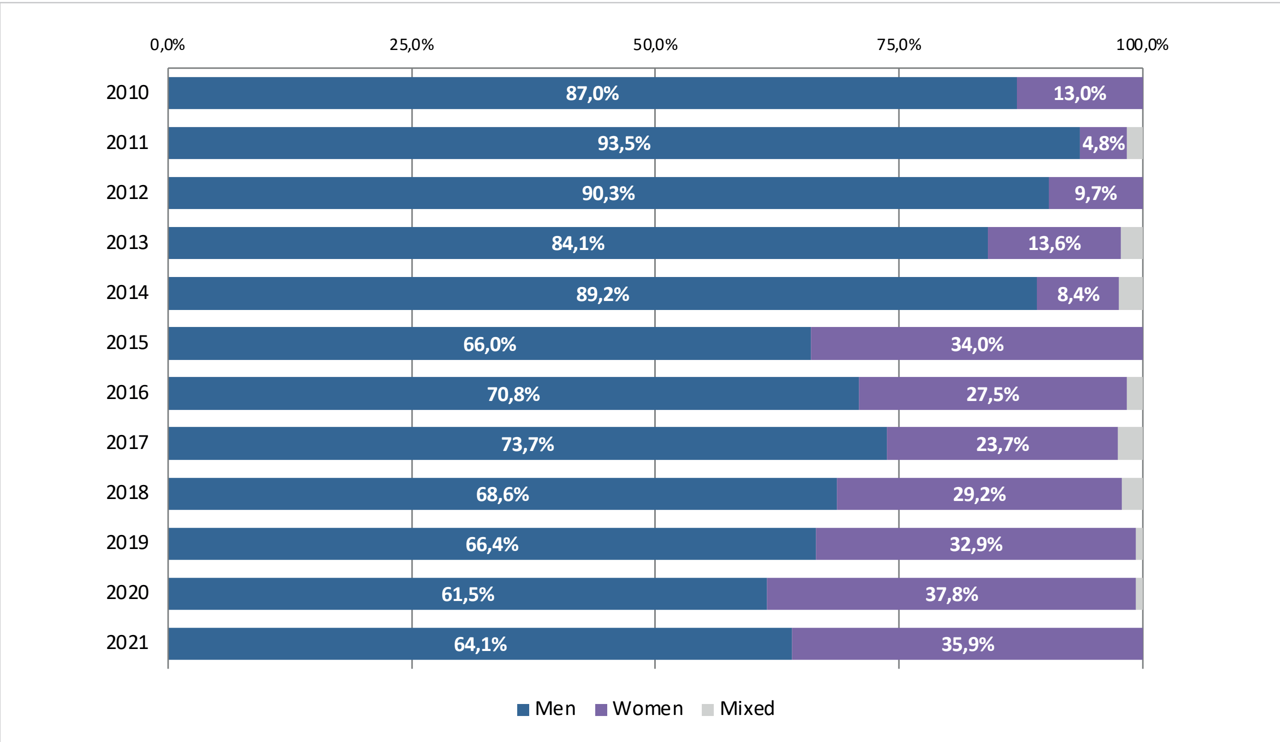
Table 5. Proportion of works written by women by supplement and year (2010–2021)

	Babelia	*Cultura|s*	*El cultural*	*ABC cultural*	Total
2010	10.3%	-	16.0%	-	13.0%
2011	0.0%	-	8.0%	8.3%	4.8%
2012	10.0%	16.7%	3.3%	7.7%	9.7%
2013	15.0%	16.7%	16.0%	0.0%	13.6%
2014	15.0%	15.0%	3.3%	0.0%	8.4%
2015	60.0%	30.0%	25.5%	-	34.0%
2016	50.0%	30.0%	20.0%	20.0%	27.5%
2017	20.0%	33.3%	22.2%	17.4%	23.7%
2018	42.0%	36.7%	11.4%	18.2%	29.2%
2019	40.0%	33.3%	22.2%	50.0%	32.9%
2020	50.0%	36.7%	26.0%	40.0%	37.8%
2021	44.0%	40.0%	38.0%	8.7%	35.9%
Total	33.4%	29.5%	19.7%	14.2%	25.3%
40% or more	50.0%	10.0%	0.0%	20.0%	20.5%
50% or more	25.0%	0.0%	0.0%	10.0%	9.1%

The overall percentages (Graph 1) have also tended toward convergence between 2010 (87.0% of men compared with 13.0% of women) and 2021 (64.1% versus 35.9%), with a significant jump, as already mentioned, in 2015, although the female collective continues to occupy a secondary position.

> There is a clear dividing line in 2015, in which three supplements, *Babelia*, *Cultura|s*, and *El cultural*, ostensibly increased the number of women selected

The indices for jurors have also evolved (Table 6). While between 2010 and 2015 women made up no more than 20%, from 2016 their numbers increased, mainly driven by *Babelia*'s figures, which tend toward parity, while the other supplements (especially *Cultura|s*) also show higher values as the decade progresses, albeit with fluctuations. The global average, however, stands at 28.6%, and only 16.7% of the editions analyzed include at least 40% women among their specialists. It is true that, in the last two years, women have risen to represent more than a third of the members, but in short, male dominance is still evident.



Graph 1. Authorship of selected works by genre (2010-2021)

Table 6. Proportion of women jurors per supplement and year (2010-2021)

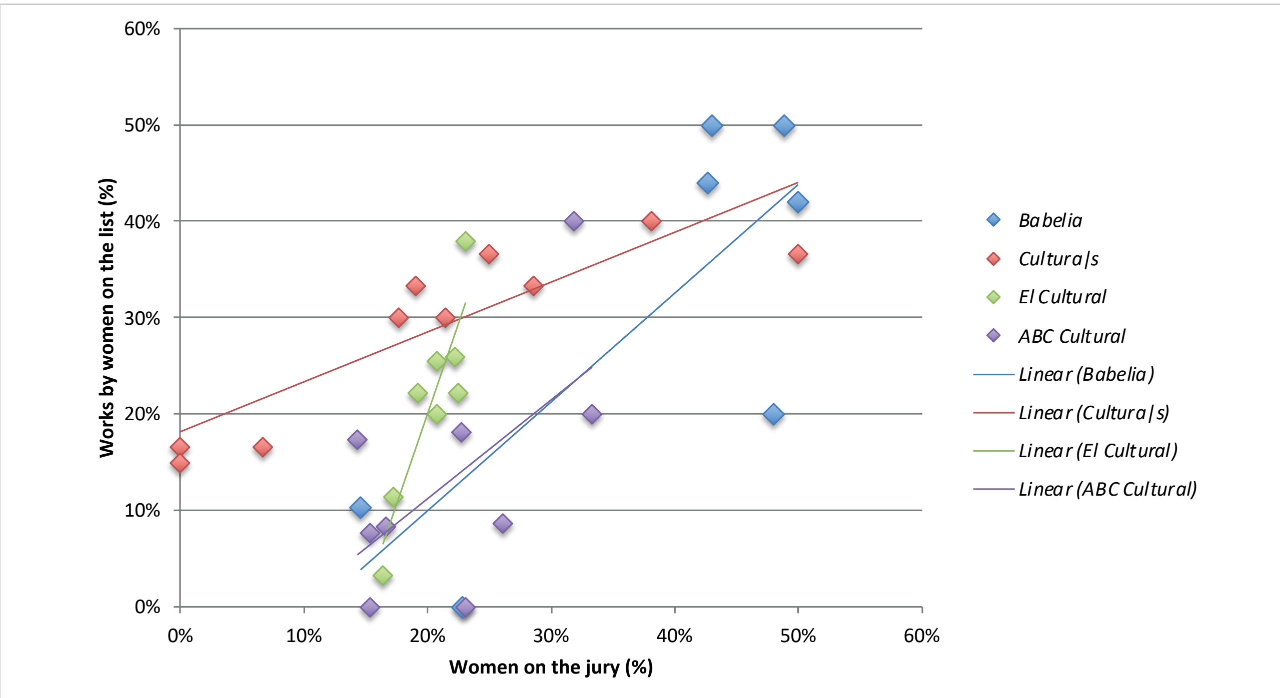
	Babelia	*Cultura|s*	*El cultural*	*ABC cultural*	**Total**
2010	14.5%				14.5%
2011	22.8%			16.7%	21.7%
2012		0.0%		15.4%	13.3%
2013		6.7%		15.4%	10.7%
2014		0.0%	16.4%	23.1%	17.4%
2015		21.4%	20.8%		21.0%
2016	48.8%	17.6%	20.8%	33.3%	31.0%
2017	48.0%	19.0%	22.4%	14.3%	29.8%
2018	50.0%	25.0%	17.2%	22.7%	31.1%
2019		28.6%	19.2%		22.5%
2020	43.0%	50.0%	22.2%	31.8%	39.2%
2021	42.7%	38.1%	23.1%	26.1%	35.9%
Total	38.3%	26.0%	20.1%	21.8%	28.6%
40% or more	57.1%	10.0%	0.0%	0.0%	16.7%
50% or more	14.3%	10.0%	0.0%	0.0%	6.7%

This issue is relevant because the bivariate analysis reveals that the composition of the jury shows a statistically significant correlation with the number of women's works in the rankings. The application of Spearman's rho statistic (the most suitable for small samples) to the 34 editions in which the lists of both books and jury members are published in full reveals that, the more women responsible for selecting the titles, the greater the presence of women authors in the listings ($r_s = 0.647$, $p < 0.001$). This correlation is best seen in Graph 2.

4.2. Positions achieved by women writers

A second indicator of the importance given to women writers in the rankings is the positions that their books occupy in the rankings themselves. This is not easy to determine since the way of presenting the selected works is very diverse. *Babelia* prepares a unique list, *Cultura|s* and *El cultural* classify them by genres, while *ABC cultural* refrains from ordering them. Even so, in three of them, there is always at least one notable title, on the basis of which this comparison can be made (Table 7)[9].

The supplement of *La vanguardia* is the only one that yields balanced proportions; since 2010 it has highlighted 20 books of female authorship out of a total of 44 selected. The others exhibit very pronounced gaps, with 46 works written



Graph 2. Percentage of women on juries and among the authors of the selected works

by men out of 51 in the case of *El cultural*, and 10 out of 12 in *Babelia*. Overall, the balance is overwhelmingly male, with 82 titles out of 110.

Table 7. Authorship of works that head the rankings by supplement (2020–2021)

	Babelia	*Cultura|s*	*El cultural*	Total
Men	83.3%	54.5%	88.5%	74.1%
Women	16.7%	45.5%	9.6%	25.0%
Mixed	0.0%	0.0%	1.9%	0.9%

The lists of highlighted authors present some similarities, but mostly differences:

- in *El cultural*, Isabel Burdiel (2010), Clara Janés (2013), Marta Sanz (2015), Sara Mesa (2020), and Louise Glück (2020);
- in *Babelia*, Lucia Berlin (2016) and Sara Mesa (2020); and
- in *Cultura|s*, Dolores Redondo (2013), Milena Busquets and Svetlana Alexievich (2015), Angelika Schrobsdorff and Alica Kopf (2016), Mercè Rodoreda, Jane Harper, and Vivian Gornick (2017), Marina Garcés, Eva Baltasar, and Fred Vargas (2018), Irene Solà, Mariana Enríquez, María Sánchez, and Olga Tokarczuk (2019), Elia Barceló and Sara Mesa, (2020), and Maggie O'Farrell, Núria Bendicho, and Marta Sanz (2021).

In summary, the majority of women writers are Spanish (with a Catalan predominance due to the effect of *La vanguardia*) with a few essayists (only two). There is also hardly a trace of award-winning women writers, apart from the winners of the Nobel Prize in Literature (Alexiévich, Tokarczuk, and Glück).

The case of *Babelia* deserves separate mention. As it is the only supplement that offers a unique numbered classification, it allows for better identification of the position of women's works during the entire period analyzed. In fact, its distributions well reflect the inflection observed in the middle of the last decade. Although only two women are distinguished as author of the year, a woman writer has always been placed second when first place was occupied by a man since 2015: Marta Sanz (2015 and 2017), Mary Beard (2018), Olga Tokarczuk (2019), and Maggie O'Farrell (2021). In 2015, *Cultura|s* also began to give greater importance to literature written by women, placing it systematically at the top of its classifications.

4.3. Profile of the women writers included in the rankings

Finally, the profile of the prominent women authors presents some distinctive features compared with the male authors. The first variable considered in the analysis (nationality) shows how, while the majority of the men selected are Spanish (54.2%), the majority of the women come from abroad (60.7%). The USA acts, in this case, as the reference literary market, providing 21.2% of the works by women included in the rankings (versus 13.0% in the case of works by men). Indeed, overall, *Babelia* chooses more American than Spanish authors (Table 8).

Table 8. Countries of origin of the authors included in the rankings distributed by gender (2010-2021)

	Babelia		*Cultura|s*		*El cultural*		*ABC cultural*		Total	
	M	W	M	W	M	W	M	W	M	W
Spain	43.4%	24.8%	54.2%	50.0%	64.4%	50.6%	45.7%	31.8%	54.0%	39.3%
USA	15.6%	28.8%	11.8%	17.8%	9.4%	14.6%	20.2%	18.2%	13.0%	21.2%
UK	10.2%	3.2%	6.6%	5.6%	9.2%	7.9%	7.0%	4.5%	8.6%	5.2%
France	8.2%	9.6%	7.1%	6.7%	4.4%	7.9%	5.4%	4.5%	6.1%	8.0%
Argentina	5.3%	8.0%	4.2%	4.4%	2.8%	2.2%	1.6%	13.6%	3.6%	5.8%
Other countries	17.2%	25.6%	16.0%	15.6%	9.7%	16.9%	20.2%	27.3%	14.5%	20.6%

The distribution by autonomous community also allows differentiating patterns to be established, and while the male writers come from a varied range of backgrounds, the women tend to show more similarities (Table 9). Catalonia and the Community of Madrid, which are the centers of publishing activity in Spain, are also the regions of origin of the majority of the highlighted women writers, with two out of three (65.4%) women writers coming from either Catalonia or Madrid, while in the case of men, this percentage is lower (41.6%). Together with Andalusia and the Basque Country, the other two autonomous communities that contribute the most names, the other autonomous communities and cities only provide 13.9% of the women authors, compared with 41.6% of the men authors.

Table 9. Autonomous community of origin of the authors included in the rankings distributed by gender (2010-2021)

	Babelia		*Cultura|s*		*El cultural*		*ABC cultural*		Total	
	M	W	M	W	M	W	M	W	M	W
Catalonia	17.9%	32.3%	52.2%	62.2%	15.5%	22.2%	15.3%	28.6%	24.2%	39.1%
Com. of Madrid	20.8%	29.0%	11.3%	15.6%	15.9%	37.8%	23.7%	0.0%	17.4%	26.4%
Andalusia	6.6%	12.9%	3.5%	6.7%	13.8%	24.4%	5.1%	28.6%	9.3%	16.0%
Basque Country	5.7%	6.5%	4.3%	4.4%	7.8%	2.2%	13.6%	14.3%	7.5%	4.6%
Other regions	49.1%	19.4%	28.7%	11.1%	47.0%	13.3%	42.4%	28.6%	41.6%	13.9%

Finally, age is also a variable that acts differently depending on gender. The selected men writers are on average in their sixties, while the women writers do not exceed 54.3 years, without significant variations between supplements. A similar effect is observed for the mode of the distribution, which is 61 years for men and 53 years for women. This is despite the fact that, for the deceased men writers (who exceed the deceased women writers by 27.5%), this item was not computed, which would increase this gap further.

Graph 3. Authors of the rankings distributed by age group

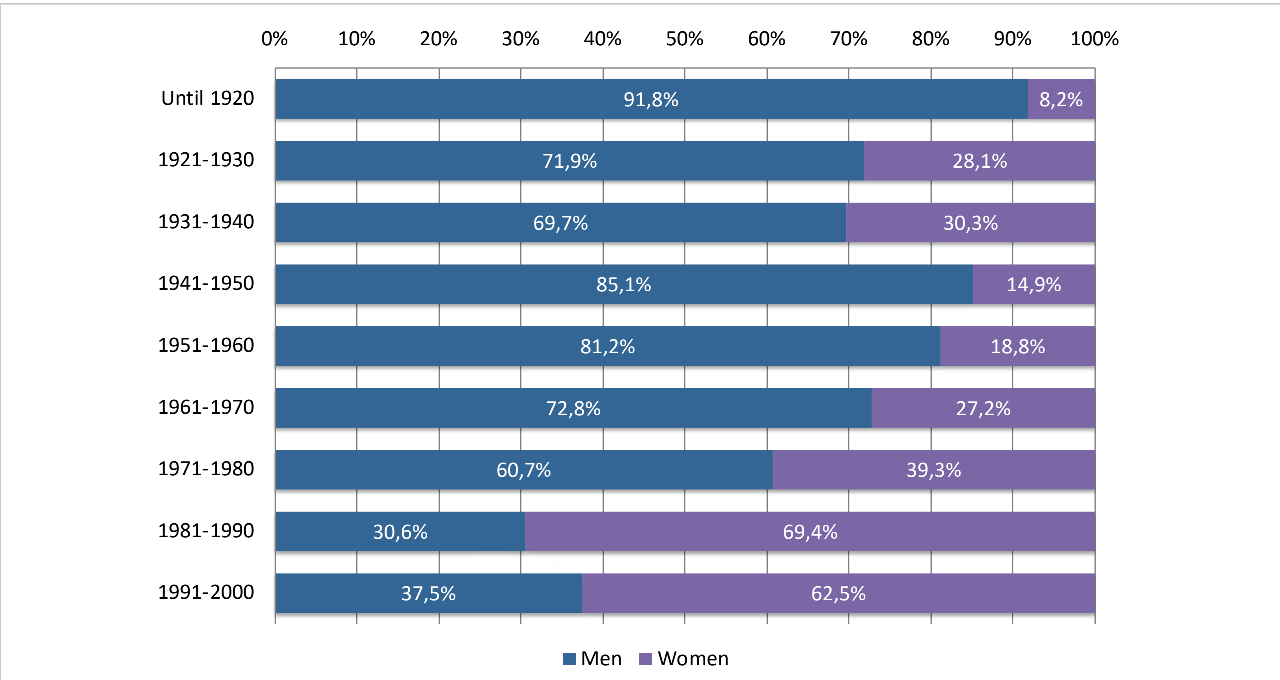
The differences between blocks become clearer in the distribution by age group (Graph 3). Here we find that the largest group of women included in the rankings is between 41 and 45 years old, while in men, the largest group recorded is between 61 and 65 years.

Conversely, the distribution of writers by decade of birth shows a clear inflection after a certain point (Graph 4). Among the authors born before 1920, the fraction of men is overwhelmingly predominant (91.8%), and they continue to represent more than two-thirds of the selected total until 1980, but by the 1980s and 1990s, those corresponding to Generation Y or Millennials, the proportions are drastically reversed and women go on to fill 68.4% of positions in the rankings.

5. Conclusions

The broad objective of this research was to determine the presence of women writers in the rankings of the Spanish cultural supplements and to verify the extent to which this approaches parity (O1). On the basis of the data, the first conclusion is clear: women are underrepresented, since on average only 25.3% of the books selected by specialist critics are written by women. However, in the last 6 years, women's writing has managed to increase its visibility, especially in contrast to previous decades, when its presence was negligible, if not null (**Freixas**, 2003; **Obligado**, 2003), although it still plays a secondary role in comparison with male authors, as pointed out by **García-Borrego**, **Gómez-Calderón**, and **García-Cardona** (2021).

The same phenomenon occurs in juries, where women make up only 28.6% of the total membership. Even so, our analysis has shown how the inclusion of women experts on the committees responsible for selecting the "books of the year" correlates positively, and in a statistically significant way, with the number of women writers selected, although it is not possible to determine with absolute certainty whether there is a causal link between these two variables.



Graph 4. Authors by decade of birth

> Overall, the data for female representation reflect a clear inequality, with only 25.3% of the works featured over the past 12 years being written by women

Considering the differences between the four supplements analyzed (O2), it can be seen that the rates by gender vary among them. *Babelia* seems to be more determined to include women authors in their rankings, while *ABC cultural* and *El cultural* present very unbalanced figures, the first due to the overwhelming proportion of men writers recommended (85.6% compared with 14.2% of women writers), who also monopolize the lists in two different rounds, and the second, because it is the only supplement that does not reach equal rates in any of the 12 years reviewed, neither in authors nor in juries. *Cultura|s* sits at an intermediate point. Its intention to make women writers visible seems clear, with classifications in which the presence of Catalan women authors is very pronounced, and little by little it is approaching the threshold of 40%, which would define parity, although this has only happened on one occasion to date (2021).

Regarding the evolution of the female presence during the period analyzed (O3), there is a clear dividing line in 2015, in which three supplements, *Babelia*, *Cultura|s*, and *El cultural*, ostensibly increased the number of women selected, although the social, political, or cultural context responsible for this change cannot be determined exactly. The great feminist movements of the last five years, such as #MeToo in October 2017, had not yet emerged, and in 2015 the Belarusian Svetlana Alexiévich won the *Nobel Prize for Literature*, but the *Swedish Academy* had also awarded the prize to women in 2013 (Alice Munro), 2009 (Hertha Müller), and 2007 (Doris Lessing), to cite only recent rounds, without altering the fraction of female representation in the rankings. And although in Spain the political dashboard was shaken in 2015 with the inclusion of new groups focusing on equality policies into parliament, it is difficult to link these two phenomena directly. The increase in women authors attracts attention insofar as it seems a conscious approach on the part of three of the publications analyzed, but the reason(s) behind this are not clear, suggesting the possibility of future studies to delve into this.

Finally, this article sought to clarify whether there is a certain profile in the women writers highlighted by the cultural press that differentiates them from their male counterparts (O4). The answer, in this case, seems to be affirmative. On the one hand, they are more cosmopolitan in terms of nationality, since Spanish authors are a minority compared with foreign ones, especially those from the USA (perhaps due to the influence of efficient and sustained marketing from the other side of the Atlantic). However, its representativeness in national terms is smaller, since two-thirds of those selected come from the large cities of Madrid and Barcelona that have the largest populations in the country, but where the sociocultural profile is more homogeneous, and therefore less rich. The conclusion is that the influence of women writers from the depopulated parts of Spain and the periphery of the peninsular is marginal compared with that of writers from the mentioned regions.

However, the most striking differentiating feature is undoubtedly age, as the cultural supplements highlight a much higher number of young women authors, born after the 1980s, than of male counterparts from that generation. It is not possible to determine from this analysis whether this is by chance or a response to a paradigm shift in the profile of writers or, on the contrary, the result of a media strategy, as suggested by **Grandes** (2003) almost two decades ago. Future work is thus required to explore this aspect.

Reviewer rankings are products of extreme subjectivity, subject to the influence of the literary market, the editorial line of the newspapers that publish them, and even the particularities of the experts who write them, who tend to reward

> "their vision of the world, that which best represents their ideas" ["*su visión del mundo, aquello que mejor representa sus ideas*"] (**Labari**, 2021).

Until just over five years ago, the presence of women in these lists was little more than anecdotal; today, however, it seems to be on the way to normalization. Even so, in certain publications, perhaps conditioned by the level of commitment of their parent newspapers to equality policies, there are pockets of exclusion that inevitably detract from the work of women writers in Spain.

> Cultural journalism, through the responsible exercise of its prescriptive role, can contribute to addressing these gender stereotypes, but it seems clear that this task is still far from complete

In the collective imagination established for centuries, literature was a matter of men, and women hardly had enough talent to deserve attention from readers, let alone from the media or other institutions. Cultural journalism, through the responsible exercise of its prescriptive role, has contributed greatly to addressing these harmful gender stereotypes. However, in view of the data provided in this analysis, it seems clear that this task is still far from complete.

6. Notes

1. These are, in order of entry, Elena Quiroga (1984), Ana María Matute (1998), Carmen Iglesias (2002), Margarita Salas (2003), Soledad Puértolas (2010), Inés Fernández-Ordóñez (2011), Carme Riera (2013), Aurora Egido (2014), Clara Janés (2016), and Paz Battaner (2017).

2. A collective volume published at the beginning of the century brought together 13 literary criticism references in Spain, all of them men, attesting to the traditional male supremacy in this sector (**Ródenas**, 2003).

3. In the absence of official figures, **Freixas** relied on her own collection of data provided by 15 major national publishers, calculating that 24% of narrative works were written by women and published in Spain during the previous year (in poetry the rate fell to 22% and essay to 15%) (**Freixas**, 2000, p. 36). In the humanities field in the UK, a longitudinal study by **Showalter** (1977) also revealed that 20% of the books were written by women.

4. María Zambrano (1988), Dulce María Loynaz (1992), Ana María Matute (2010), Elena Poniatowska (2013), Ida Vitale (2018), and Cristina Peri Rossi (2021).

5. *El país* launched *Babelia* in 1991 after merging the *Artes* (1979), *Libros* (1979), and *En cartel* (1985) supplements. That same year *ABC cultural* was born, also as a result of three previous supplements, *Sábado cultural*, *ABC de las artes*, and *ABC de la m*úsica, being merged. *El cultural* appeared in 1998 in interview format and initially associated with *La razón*, but since 1999 has been associated with *El mundo*, where it has the role of a supplement. *Cultura|s*, from *La vanguardia*, was first published in 2002.

6. Of 48 possible issues, one per year published by each supplement from the sample over a 12-year period, only 4 were not edited or could not be located: those of *Cultura|s* from 2010 and 2011, and those of *ABC cultural* from 2010 and 2015. This analysis is based on the 44 issues available.

7. Applied only to books written by more than one author that included men and women, regardless of the proportion of each.

8. There are even cases in which all the selected books are written by men, such as in the rankings of *Babelia* in 2011 and *ABC cultural* in 2013 and 2014. In comparison, women contribute more works than their male counterparts only once (*Babelia*'s 2016 classification).

9. Given that *ABC cultural* does not number the positions of the selected books, it was removed from the analysis presented in this section.

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