Paradigm changes and new challenges for media education: Review and science mapping (2000-2021)

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Abstract

Information, communication, and digitalization technologies have driven the unlimited access to knowledge, thereby promoting creativity, economic and cultural development, and the emergence of a global world at breakneck speed over recent decades. Across its multiple dynamics, this digital revolution has opened new educational opportunities that are closely connected to emerging technologies and, recently, to artificial intelligence. These advances have had an unexpected impact on people's lives, altering the values of society and our understanding of the role of education and the modern school in this scenario of global communication. In this context, media education arises from the clear influence of electronic devices and digital technology on society. The aim of this study is to review our understanding of the scientific relevance of the terms "media education" and "educommunication" during the last two decades to describe its evolution on the basis of its terms, locations, thematic stages, and methodological approaches using a systematic quantitative–qualitative review of 598 articles collected from the *Web of Science* between 2000 and 2021. The results suggest that such scientific interest can be divided into two stages, viz. reflections on media education in its terminological diversity (2000–2012) and measurement, implementation, training, and educommunicative digitization in terms of technological–digital development (2013–2021). We conclude that studies in this transdisciplinary field, which have historically been spread across North and South America, Europe, North Africa, and the North/South East Asia–Pacific region, have broadened their perspective from early criticism of media education to consider the "glocalization" of media education, directing interest toward the cultural digitization of the Global South, algorithmic literacy, and the digital and ethical–critical (self-)management of individual and collective identity.

Keywords

Media education; Educommunication; Media literacy; Media competency; Scientific mapping; Social media; ICT; Glocalization; Digital culture; Digital literacy; Review article.

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1. Introduction

In the 1960s, digital technology was viewed through a utopian perspective as a revolutionary movement by and for the people. Technology was conceived as a means of enabling unlimited access to global knowledge, creativity promotion, local business development in a broad context, and the reemergence of democracy, which resulted in what **Buckingham** (2020) defined "digital capitalism." This cross-cultural approach led to new active and participatory educational practices focused on learning as a consequence of global trends related to artificial intelligence or aerospace technology. However, owing to the Covid-19 pandemic, digitalization intensified in all fields of life (work, education, industry, and society, among others), leading to emerging concerns about participation in the online world, beyond the preliminary research on equity and the impact of media education on development, democracy, and human rights (**Martínez-Bravo** *et al.*, 2021).

Currently, the concept of media education is conceptualized as a personal development process involving the media for the promotion of critical thinking, perception, interpretation, analysis, and judgment of media messages as well as for digitalized modes of self-expression (**García-Matilla**, 2022). In this sense, media education is considered the result of this process in which individuals are actively encouraged to develop competencies in the communication and information fields (**Fedorov**, 2008). Moreover, the study of media education has also been explored in Ibero-American contexts, where the combination of education and communication has become a transdisciplinary field known as "educommunication," in which individuals assume a more proactive and critical role regarding the media (**Lotero-Echeverri** *et al.*, 2019). In this context, we have noted two unique traits that differ from the research preconceptions of the Global North. Firstly, one finds educommunication as liberation of the oppressed, the development of the critical perspective, and the meaningfulness of dialog (**Freire**, 2005). Secondly, one observes the emergence of environments that prioritize technological, media, and digital inequality and precariousness (**Mateus** *et al.*, 2022). As pointed out by **Bermejo-Berros** (2021), these two concepts are both compatible and necessary for their dialectical integration and epistemological conceptualization insofar as "media education" and "educommunication" combine to define the relevance of communication in education.

Considering these theoretical–practical proposals, schools are currently enhancing their programs through literacy initiatives to enhance digital inclusion in society as a utopian support for media education curricula (**Poyntz** *et al.*, 2021), to promote the dissemination of new cross- and transmedia strategies (**Jenkins** *et al.*, 2013). According to **Buckingham** (2020), this democratic–digital vision remains far from promoting informed discussion and debate, as social media contribute to the development of a digital world that is controlled by a few corporations that are responsible only to their own shareholders. Thus, the problem we face in terms of research is a digital paradigm change that has revolutionized the foundation of society and, consequently of education, in which it becomes imperative to analyze the social reality beyond didactics, considering the interdependent and current aspects of media education (**Gómez-Galán**, 2020). In other words, we must understand media education from the Global North and South as a strategy oriented toward the analysis of consumption, ideological demystification, and the verification of the truth in the light of changing and dynamic challenges that reflect marginal perspectives and result in new demands for the development of media competencies (**Nichols**; **LeBlanc**, 2020).

Starting from this framework, the present study delves into studies directed toward the analysis of the impact of "media communication" and "educommunication" at the scientific level through a systematic review. Recent studies using this method have considered analyses of this phenomenon with regard to disinformation or multiliteracy (**Valverde-Berrocoso** *et al.*, 2022), "fake news" in the light of the new challenges of creative production and consumption (**Kim** *et al.*, 2021), the risks of democracy as a result of fake news and big data (**Ottonicar** *et al.*, 2021), and the specific impact of digital literacy on education (**George-Reyes**; **Avello-Martínez**, 2021), among others. However, literature lacks an evolutionary analysis of the educommunicative object itself with the aim of understanding the corresponding intercultural perspectives during the last two decades. We thus attempted to identify works on media education from the English speaking–Western perspective (in English) as well as the Ibero-American view (in Spanish), with the following specific objectives: (a) to explore the main scientific concepts in media education, (b) to map the geographical zones that are interested in media education from a scientific perspective, (c) to distinguish the thematic stages in the scientific literature in this transdisciplinary area, and (d) to identify their methodological approaches.

2. Literature review

2.1. Historical evolution of the concept: media education

The concept of "media education" has been given numerous definitions over the years, always responding to the specific needs of context and traditions. In line with this permanent technological diversity and the rhythm of the emergence of new media, an extensive theoretical–conceptual debate has been generated, diversifying the global concept of knowledge, its objectives, and the implementation of media education plans in education environments (**McDougall**, 2013). Officially, the term "education for communication" was introduced for the first time in 1982 by the United Nations Educational, Scientific and Cultural Organization (*Unesco*) as a way of integrating media into all levels of education as well as promoting research (**Avello-Martínez** *et al.*, 2013). This proposal was reviewed at the *Unesco* summits in 2005 and 2007, followed by the launch in 2006 of the curriculum *Media literacy: a kit for teachers, students, parents and professionals* (**Frau-Meigs**, 2006), aimed at the implementation of media literacy in the curricula of secondary school teachers. Considering this proposition, in the early twentieth century, "media literacy" was defined as the reflective ability of audiences to understand and select the media and to produce their own content (**Alvermann**; **Hagood**, 2000). In other words, this concept was understood as a way of analyzing the media to promote critical thinking regarding the messages received –and perceived– by people (**Cheung**, 2004).

Media education continued to evolve as new technological advances occurred, addressing concerns and challenges associated with digital culture (**Acerbi**, 2019). Some of the more widespread scientific terms have been: "media education," which refers to the development of individuals' competencies for understanding and using communication media in a more critical and conscious way (**Fedorov**, 2008); (2) "digital literacy," a term introduced by **Gilbster** (1997) for the development of the information society, which refers to the ability to interpret and technologically use digital technology and its resources; and (3) "information literacy" , which refers to the ability to identify, analyze, and evaluate information in its different formats (**Buitrago** *et al*., 2017). Meanwhile, in 2011, an update of the *Unesco* curriculum was presented, *Media and information literacy: curriculum for teachers* (**Wilson** *et al.*, 2011); "media education" became "media and information literacy" (MIL), and the perspective and implications of this methodology were expanded to the education scenario. Afterwards, the Alfamed Research Network on Media Competencies for Citizens, from the Euro-American area, introduced the *Alfamed curriculum for teacher training in media literacy* (**Aguaded** *et al*., 2020) with a multicultural and plural perspective that broadened the previous approaches, adapting it to the post-pandemic challenges in the third decade of the twenty-first century. This document was ratified, at the same time, by the *Unesco Media and information literacy curriculum for educators and learners* (**Grizzle** *et al*., 2021), which incorporated, along with educators, students as a central element in the media–digital learning process.

As a result of this terminological plurality, other projects and research studies have proposed concepts such as "new media literacies" (**Jenkins** *et al.*, 2009), "multiple literacies" (**Bergomás**, 2010), and "transmedia literacy" (**Scolari** *et al.*, 2018), contributing to the debate on the convergence between the areas of communication and education. Despite this variety of concepts, the present study departs from the concept of "media education" with respect to how it addresses, from a broad scientific perspective, the idea of reading and writing, comprehension, and critical use of communication, technological, and digital media (**Aguaded**; **Guerra-Liaño**, 2012; **Buitrago** *et al*., 2017; **García-Matilla**, 2022).

2.2. New scenarios for cybercitizens

With the massive and compulsive presence of the internet, social networks, and multiple electronic devices, the role of the media has become a central axis of global(ized) society. As pointed out above, these advances result in unprecedented situations that generate new meanings, having an overwhelming impact on the population (**Mason**; **Metzger**, 2012). In fact, following the worldwide Covid-19 crisis, the post-pandemic society has challenged the idyllic vision of digital globalization in the sense of an ingenious and positive view of technology as the facilitator of communication and the personal, professional, and educational activities of individuals (**Abolfathi** *et al.*, 2022). However, the growth in consumption has been exponential, with the use of social networks peaking in 2022 according to the *Digital 2022 global overview report* (*DGO Report*, 2022), such that platforms such as *YouTube*, *Instagram*, *Facebook*, *Twitter*, and *TikTok* have gained 13.5 new users per second, being the preferred type of media (95.7%) for the consumption of information, content creation, digital self-representation, and social interaction by young adults (**Xiao** *et al.*, 2021).

Many studies have demonstrated that the ways in which we express ourselves, become informed, communicate, and understand everyday life vary as new technological–digital functionalities appear. These social processes affect the structure and the way in which media education is implemented today (**Abolfathi** *et al.*, 2022), creating new challenges to the role of the prosumer (production and consumption of media and digital content) (**Toffler**, 1980), which result in new self-representations, constructions, and management of the digital identity as well as emergent narratives and (un)awareness of citizens' perspectives (**Feher**, 2019); That is, digital platforms, social networks, and the actions they enable have shaped the way in which citizens participate in society since the advent of the internet era (**Buckingham**, 2007). Its broad use and consumption have become embedded in everyday life, with resources such as hashtags,

> "Schools are enhancing their programs with literacy initiatives for the digital inclusion of the society as a utopian support for media education curricula"

likes, and comments providing multiple options for taking part in social activities (**Chen** *et al.*, 2011), and thereby the manner in which we learn and teach (**Tejada-Fernández**; **Pozos-Pérez**, 2018). Therefore, in an environment of abundant data and information exchange, the need arises to understand the inner workings and influence of these platforms, for the construction of competent cybercitizens (**Aguaded**; **Vizcaíno-Verdú**, 2020).

> "Media education continued to evolve as new technological advances appeared, addressing concerns and challenges associated with digital culture"

Various studies have demonstrated that to intervene democratically in these complex digital scenarios, knowledge and development of a series of competencies that facilitate the analysis of messages are fundamental, beyond the technical features, concerned with heterogeneity and the intent of sociocultural meanings (**Mezquita-Romero** *et al.*, 2022). Additionally, media education implementation projects have shown that when specific educommunicative processes are applied, citizens develop their socio-proactive capacity, encouraging them to think critically about possible stereotypes, discriminations, or violence (**Erstad** *et al*., 2021). Thus, media education promotes not only participation but also the construction of cybercitizens as agents of social change through the responsible use and consumption of communication media, technologies, and platforms (**Kumari**, 2020). As a result, the present study intends to present the historical–geographical evolution of educommunicative interests during the last two decades and to understand their sociohumanistic trends.

3. Method

The present study included a systematic review and the use of a science mapping method from a quantitative–qualitative perspective (meta-ethnography). Meta-ethnography, defined as synthesis and discussion with respect to research about a specific subject of specialization (**Noblit**; **Hare**, 1988), allows a broadening of the interpretations of preexisting original studies to create a theoretical–visual argument about the scientific evaluation of media education over the last 20 years from 2000 to 2021. Likewise, science mapping, that is, the process of visualizing potentially significant patterns and trends about a scientific question (**Chen**, 2017), enables the identification of components, dynamics, and structures with respect to geographical scenarios, subject trends, and methodological frameworks.

3.1. Search and selection procedure

The search, selection, and synthesis of the data was performed through a systematic review according to the *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (*Prisma*) standards (**Moher** *et al*., 2015). As we consider an interdisciplinary portmanteau between "communication" and "education," with a broad range of data and an extensive history over the last two decades, the search was limited exclusively to the most well-recognized international database: the Core Collection of the *Web of Science*. The data obtained were thus guaranteed to have an international perspective, with documents supported by high-quality indexation criteria, thus avoiding the potential errors in similar results obtained from other platforms.

Regarding the procedure, the search was narrowed down to a limited set of terms (in Spanish and English): "alfabetización mediática," "media education," "educomunicación," "educommunication," "educación mediática," and "media education," adopting the following strategy: "[term]" AND [2000 to 2021] AND [Title] AND [Article] AND [Spanish / English] AND [Education Educational Research / Communication]." The initial search obtained a total of 613 scientific articles within the areas of Education and Communication during the last two decades.

Next, duplicate records were filtered out by using the *RefWorks* bibliography manager. This process included a double screening: (1) an automatic process using the manager software, and (2) a manual process on the basis of qualitative reading by the authors. For the latter, the *Spider* (sample, phenomenon of interest, design, evaluation, research type) strategy was applied (**Methley** *et al.*, 2014) to define the eligibility criteria for the qualitative analysis. The final criteria applied were (a) sample (international, regardless of date or geographical zone), (b) phenomenon of interest (media education as the main axis of the object of study), (c) analysis design (cross-sectional, longitudinal, or experimental), (d) evaluation (perceptions and conclusions about the impact of media education), and (e) type of research (qualitative and/or quantitative). This resulted in 598 studies (Fig. 1).

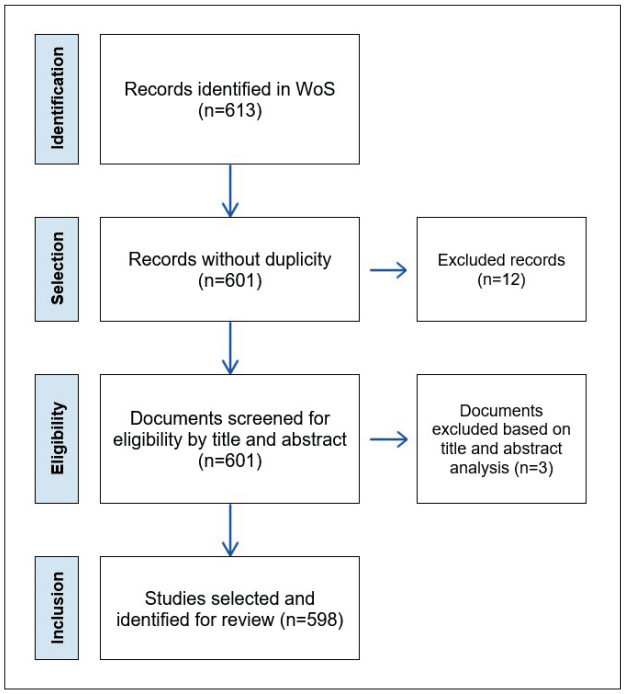

Figure 1. Flow diagram of the selection process

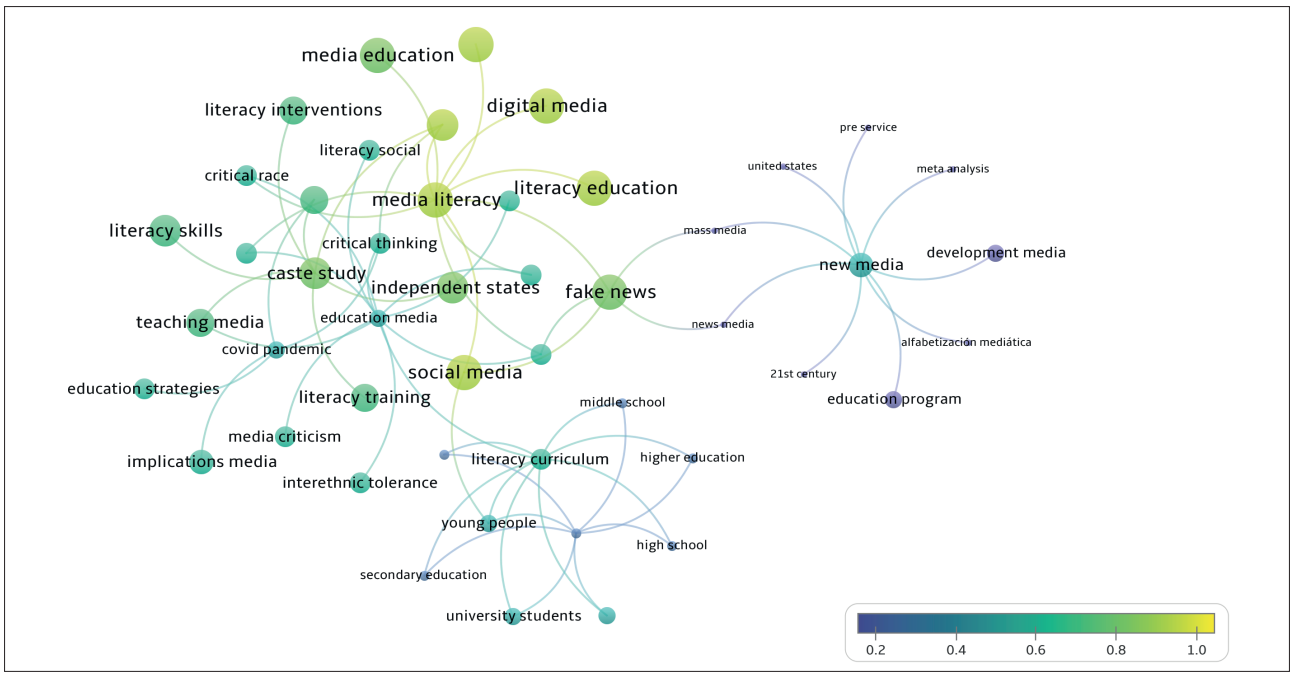

Figure 2. Network of conceptual co-occurrences in media education studies

3.2. Analysis and data synthesis

Because the body of work was broad, diverse, and complex, the data were analyzed and interpreted in two ways: quantitative and qualitative. The former provides a global approach to the phenomenon with respect to the concepts, while the latter allows a deeper analysis of the evolution of media education with respect to its methods, themes, populations, etc., through the application of science mapping to reveal the trends and issues considered during the last two decades. The quantitative analysis was performed by analyzing the article titles using the *WordCounter* platform so that, using the two terms, we could identify concept referring to studies on media education. Meanwhile, the qualitative analysis was performed through the codification using the *Spider* scheme, establishing indicators for each of the articles selected. Additionally, science mapping of the results was performed by using the network analysis and visualization software *VOSviewer 1.6.18* and *Gephi 0.9*.

4. Results and discussion

4.1. Conceptual approach to studies on media education

To explore the studies on media education, we identified 48 keywords identified on the basis terminological density whose meaning differed from the terms that composed them, thus being considered as consolidated scientific concepts. The most interesting ones, in order of appearance, were “media literacy,” “media education,” “literacy education,” “critical media,” “digital media,” “social media,” “case study,” “new media,” “literacy skills,” “literacy training,” “school students,” “higher education,” “literacy interventions,” “fake news,” “21st century,” “information literacy,” and “critical thinking”, among others (Figure 2).

Through co-occurrence analysis, the main clusters were identified as (1) “media literacy,” in association with “media education,” “critical media,” “digital media,” “fake news,” “social media,” or “case study”; (2) “new media” with “development media,” “education program,” “meta-analysis,” “mass media,” “news media,” and “21st century,” among others; (3) “literacy curriculum” with “middle school,” “higher education,” “high school,” “university students,” “young people,” “secondary education,” and “education media.”

The data revealed some trends and concerns about media education studies, among which we observed phenomena associated with fake news, interethnic tolerance, or the Covid-19 pandemic. We also identified analytical approaches on critical thinking, media criticism, racial criticism, or the involvement of education, or scenarios based on the use of case studies as the main type of analysis in primary and secondary schools, and university.

4.2. Media education for a “glocal” community

Based on the sample, throughout the analysis, a growing interest was observed in the study of media education in different educational, political, and social contexts. In the first decade (2000–2012), we found studies localized to a specific geographical location, whose aim was fundamentally to conceptualize the idea of “media educa-

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tion." In contrast, during the second phase (2013–2021), a proliferation of studies was observed related to technological–digital development and its implication in society (Figure 3).

The first few years (2000–2003) revealed studies dedicated to theoretical reflections on the concept of media education and the importance of recognizing media as an influential element in society, left over from previous communication theories. As the years passed, it was observed how media education changed worldwide to include African, Asian, and Latin American countries, in agreement with *Unesco* recommendations on its implementation in school curricula and teacher training on the critical use of media and social networks (**Avello-Martínez** *et al.*, 2013).

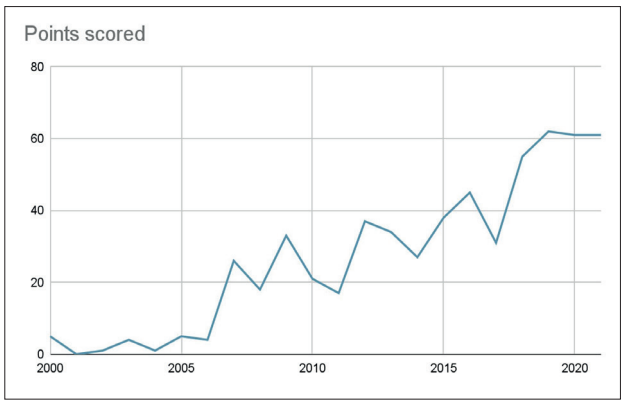

Figure 3. Evolution of the number of studies in media education

With the passage of time, the sample broadened in terms of both reach and number (**Scharrer**, 2005; **Gruba**, 2006; **Austin** e*t al*., 2007; **Pinkleton** *et al.*, 2008; **Primack** *et al.*, 2014). However, in many countries, scientific concerns about media education were scarce, especially in Southern Africa, some Latin American countries, or western Asia (Figure 4). Studies on media education were particularly prevalent in North and South America, Europe, Northern Africa, and the North and South East Asia–Pacific region.

According to the data obtained, three representative population segments were observed: (1) students, encompassing different age groups, for which activities were proposed both inside and outside the classroom for the development of technological–digital media competencies (**Pinkleton** *et al.*, 2008; **Byrne**, 2009; **Cheung**, 2010; **Medina-Cambrón** *et al.*, 2015); (2) educators, focusing on training for the implementation of technological, digital, and audiovisual resources in different education environments (**Belova**; **Eilks**, 2016; **Wang** *et al.*, 2018); (3) families and older individuals, focusing on the integration and inclusion of the different generations involved in information and communication processes (**Tsvetkova**, 2019). This classification supports what **Jaakkola** (2020) considers to be a limitation in the study of media education, in that the samples were homogeneous with respect to the worldwide community. In this line, media education, according to **Abolfathi** *et al.* (2022), would have to be understood in all areas and collectives from a "glocal" (both

Figure 4. Geographic map of studies on media education from 2000 to 2021. See an interactive evolution at: *https://view.genial.ly/6267ffbf4d958600180afc19*

global and local) point of view (**Hemer**; **Tufte**, 2005), considering the evolutionary and constant impact of technology, the media, social networks, and information in the lives of individuals (**Xiao** *et al.*, 2021).

4.3. Thematic evolution of media education in science

As a result of the media education activities conducted by the *Unesco*, the publication of different curricula for the training of educators and students (**Wilson** *et al.*, 2011; **Aguaded** *et al.*, 2020; **Grizzle** *et al.*, 2021), and the consolidation of social networks, researchers have reformulated the concept over the last two decades, following emerging social phenomena that have led to preferred lines of research. As shown in Figure 5, among the hundreds of studies analyzed, five stages could be identified: (1) conceptualization, which includes studies on terminologies and reflections on media as an educational venue; (2) implementation, which includes the analysis of media legislation, the surge and challenges of technological advances, and new media representations of audiences; (3) formative, which possesses new scenarios regarding participative culture, education 2.0, and the conceptual debate on previously introduced terminology; (4) measurement, which analyzes the opportunities and consequences of media education according to the digital gap and identity; and (5) digitalization, which mainly studies the impact of social networks, the prosumption of information, and the shaping of digital identity.

> In these complex digital scenarios, the knowledge and development of a series of competencies that facilitate the analysis of messages are fundamental, beyond the technical features, concerned with heterogeneity and the intent of the sociocultural meanings

The following evolutionary stages can be defined:

Conceptualization stage (2000–2005)

In this period, media education started to be conceived at the conceptual level through reflective studies. Research studies explored diverse terms from different perspectives and disciplines (**Alvermann**; **Hagood**, 2000), while also trying to clarify and unify their social necessity (**Gutiérrez-Martín**; **Tyner**, 2012). During this stage, the term was explored within different political and social contexts without consensus on its definition, with the discussion progressively expanding according to temporal and geographical needs (**Buckingham**, 2003).

Implementation stage (2005–2010)

This stage resulted from the launch of the first *Unesco* curriculum (**Wilson** *et al.*, 2011), in which studies were planned, centered on the application of media education in the different phases of education (from early childhood to university). Studies were mainly experimental in character with a quantitative approach, focusing on classroom experiences and the practical exploration of media activities with pedagogic aims. Studies during this period present evidence that a higher level of media competency related to media education led to greater critical awareness of media use and consumption (**Cheung**, 2009; **Opertti**, 2009; **Nam**, 2010).

Formative stage (2011–2015)

During this stage, it was observed that, despite institutional efforts made on curricular and legislation issues, citizens had difficulties and deficiencies in learning about media, due to a lack of training of teachers (**Cabero**; **Liano**, 2011). Thus, studies focused on the media competencies of professors to improve and effectively implement quality criteria to ensure effective student learning. During this period, the importance of media education for citizen participation was underlined, with the emergence of some of the first studies on social networks (**Faiola** *et al.*, 2010). However, the focus

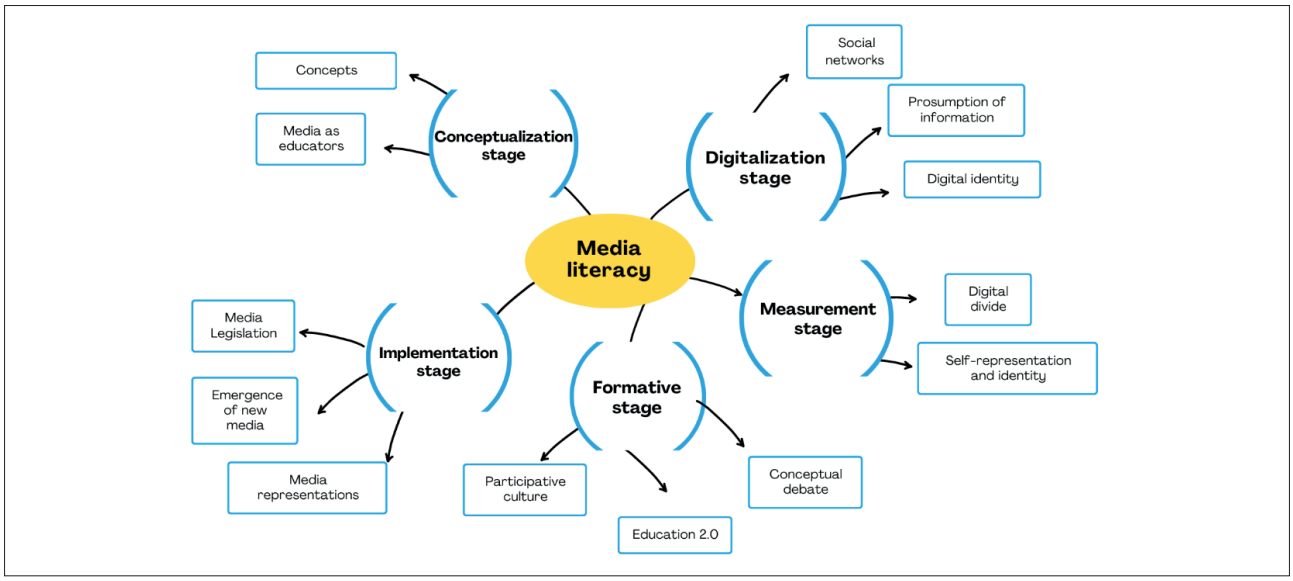

Figure 5. Advances of media education in stages and sub-themes

of media education remained almost intact, addressing the challenges associated with accessing, reading, evaluating, reflecting on, and creating media content (**Medina-Cambrón**; **Ballano-Macías**, 2015). Likewise, this period also saw the emergence of studies with small samples that considered population segments complementary to the profile of professors or students, such as older individuals (**Santibáñez-Velilla**, 2013; **Abad-Alcala**, 2014), vulnerable and/or traditionally marginalized collectives, and groups at risk of social exclusion (**Franco-Álvarez**; **Martul**, 2013).

> The data showed some trends and concerns about media education studies, among which we observed phenomena associated with fake news, interethnic tolerance, or the pandemic due to Covid-19

Measurement stage (2016–2018)

Studies during this period demonstrated that the implementation of educommunicative methodologies had not been successful, focusing on measuring the level of media education of citizens as well as the development of new formal and informal teaching–learning formulas (**Xiao** *et al.*, 2021). We identified studies with approaches directed toward the training of users and audiences (**Moekotte** *et al.*, 2017; **Dezuanni**, 2018), and works oriented toward the analysis of media texts and understanding the mechanisms of online content creation (**Buitrago** *et al.*, 2017).

Digitalization stage (2019–2022)

In this last phase, the transformation of the media and the access to information enabled the analysis of consumption and distribution of information, data, and news (disinfomedia, fake news, and information saturation, among others) (**Acerbi**, 2019; **Abolfathi** *et al.* 2022) as well as the habits of vertiginous digital consumption, platforms, algorithms, and the monetizing and diversification of data (**Poyntz** *et al.*, 2021; **Nichols**; **LeBlanc**, 2020). In this last stage, studies defined media education as the capacity to access, participate in, create, redefine, and interpret media messages as proactive citizens (**Shinta** *et al*., 2019; **Fardiah** *et al.*, 2020; **Arik**; **Arik**, 2021).

4.4. Analysis design and types of studies

Having identified the themes of scientific interest, the preferred research designs of media education studies were analyzed by network analysis (Figure 6). During the conceptualization stage, most of the works were reflective, aiming to apply literature reviews and trials to address the concepts that explained the needs of society in terms of media (**Buckingham**, 2007). In turn, during the implementation and formative stages, the studies became more quantitative, mainly quasi-experimental or experimental, regarding the reduction to practice as well as the verification of the effects of educommunicative training, and the evaluation of the programs designed and executed through questionnaires, experimental groups, etc. (**Cabero and Liano**, 2011; **Abad-Alcala**, 2014; **Tully**; **Vraga**, 2017). In the last stage analyzed, that of digitalization, the analyses were eminently qualitative, including in-depth interviews, discussion groups, documental and/or bibliometric analysis, or ethnography, as well as emerging techniques such as digital ethnography, the digital analysis of content, and the analysis of social networks, among others (**Shinta** *et al*., 2019; **Fardiah** *et al.*, 2020; **Arik**; **Arik**, 2021).

> It is especially worth mentioning how "digitalization" has become the cultural *modus operandi* of modern civilization

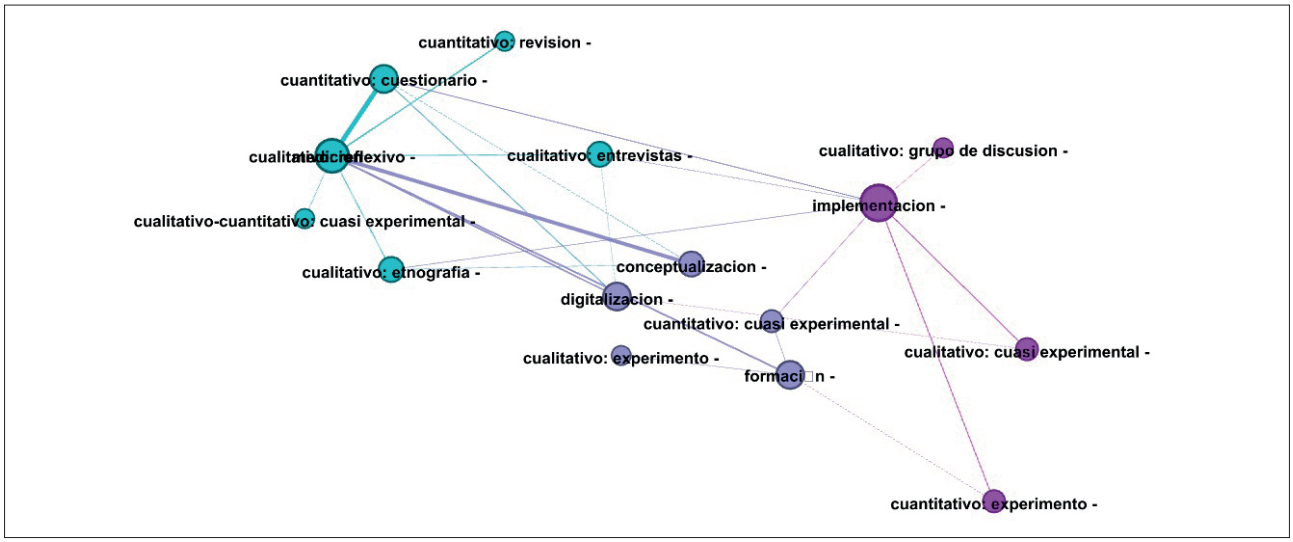

Figure 6. Network of research approaches according to the stage of the education studies of the media analyzed

5. Conclusions, limitations, and outlook

The results of this historical–evolutionary analysis of studies on media education reveal that, for many decades, this research tradition has been conditioned by the highly universal uses and effects of technological–digital advances of devices and media. Therefore, it is especially worth mentioning how "digitalization" has become the cultural *modus operandi* of modern civilization. Everything revolves around digitalization, the sacred totem of modern civilization. Indeed, these platforms have changed the way in which we conceive the media, either owing to their beneficial use, with critical and responsible ideas, or the self-expression of the "digital I." This is why future media education plans highlight the challenges regarding our capacity to understand the codes and languages of the internet in algorithmic and datafied terms, as well as the development of competencies for the prosumption of creative content that exploits human communication according to conscientious, ethical, and judicious criteria.

> "Despite the introduction of international mapping that builds the road towards "glocalization", the population segments were fundamentally homogenous"

As observed in this work, despite the introduction of international mapping that builds the road towards "glocalization," the population segments were fundamentally homogeneous, until the last digital stage, when concern for minorities and the Global South can be observed. In particular, social networks open the way to analysis of individual and/or collective (self-)representation, prosumption of information and news (fake news, disinfodemia, hate speech, etc.), and the transformation and dissemination of heterogeneous and emerging languages that modify the way we understand language today (emojis, memes, interactions, etc.). These trends have resulted in the development of new hypotheses regarding the role of educommunication for the educator and the student, which are repeatedly adapted to processes that, as of today, extend over just 24 hours, at most, through an Instagram story.

In the face of the great number of new ways in which society can be analyzed in educommunicative terms, as well as the relentless and continuous advance of information technologies, communication, and digitalization, we admit that this study was limited to a description of studies collected from a single database, i.e. the *Web of Science*. This decision was not trivial, as our approach to the phenomenon of media education resulted in a very large number of works whose extension to other document platforms (or in temporal terms) would have resulted in an untenably large quantitative–qualitative sample. This review thus provides a starting point for future studies on the deficiencies and resulting scientific challenges for agents of educommunicative change, as an agent of digital "glocalization," media education "in" and "for" the Global South, algorithm and data literacy, and digital (self)- and ethical–critical management of individual and collective identities.

> "We start from a review that forecasts future studies on the deficiencies and consequent scientific challenges for agents of educommunicative change, as an agent of digital "glocalization", media education "in" and "for" the global south, algorithm and data literacy, and digital (self)-and ethical-critical management of individual and collective identities"

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