MOBILE APPS OF SPANISH TALK RADIO STATIONS. ANALYSIS OF SER, RADIO NACIONAL, COPE AND ONDA CERO'S PROPOSALS

Las aplicaciones móviles de las emisoras generalistas en España: análisis de las propuestas de SER, Radio Nacional, COPE y Onda Cero

Susana Herrera-Damas y Eva-María Ferreras-Rodríguez



Susana Herrera-Damas holds a PhD in audiovisual communication and is a journalism professor at the *Universidad Carlos III de Madrid*. Her research is focused on journalistic ethics, radio narrative and on how social media can increase the technical and ethical quality of journalism. http://orcid.org/0000-0002-1755-1621

> Universidad Carlos III de Madrid, Departamento de Periodismo y Comunicación Audiovisual C/ Madrid, 133.28903 Getafe, Madrid, España dherrera@hum.uc3m.es



Eva-María Ferreras-Rodríguez, an independent researcher, holds a PhD in journalism. Her studies focus mainly on the new dynamics of social communication networks and their relationship with the media.

https://www.linkedin.com/pub/eva-m%C2%AA-ferreras-rodr%C3%ADguez/1a/991/1aa http://orcid.org/0000-0002-8604-034X

eva.ferreras@gmail.com

Abstract

Mobile devices today have become the center of our connectivity. Radio companies tailor their content in several ways: podcasting, streaming, and mobile applications. The aim of this paper is to learn more about the mobile app content of the most popular talk radio stations in Spain. For this purpose, in January 2015 we conducted a qualitative content analysis in order to establish the type of products provided, their structure and hierarchy, and to determine to what extent Spanish talk radio stations are taking full advantage of this new potential.

Keywords

Apps; Mobile; Mobile applications; Radio; Radio stations; Content; Tablets; Smartphones; Spain.

Resumen

Hoy, los dispositivos móviles se han convertido en el centro de nuestra conectividad. Las empresas radiofónicas tratan de adaptar sus contenidos de distintas maneras: a través del *podcasting*, del *streaming* y de las aplicaciones móviles. El propósito de este artículo es conocer más el contenido que las emisoras de radio generalistas españolas están ofreciendo a través de sus aplicaciones móviles. Para ello en enero de 2015 hemos llevado a cabo un análisis cualitativo. Además de los contenidos se ha estudiado su estructura, jerarquía y hasta qué punto están aprovechando todo este nuevo potencial. Se espera además que el instrumento de análisis resulte de utilidad para otras investigaciones que analicen la oferta de apps de perfil periodístico.

Palabras clave

Apps; Aplicaciones móviles; Móvil; Radio; Emisoras de radio; Contenidos; Tablets; Smartphones; España.

Herrera-Damas, Susana; Ferreras-Rodríguez, Eva-María (2015). "Mobile apps of Spanish talk radio stations. Analysis of SER, Radio Nacional, COPE and Onda Cero's proposals". El profesional de la información, v. 24, n. 3, pp. 274-281.

http://dx.doi.org/10.3145/epi.2015.may.07

Article received on 06-02-2015 Approved on: 25-03-2015

1. Introduction

The increase in the use of mobile devices (3G/4G) and the resulting growth in the possibilities for mobility have opened alternative channels for distribution of media content. This has led many media industries to develop their apps for these devices to have a presence in these spaces. The aim of this article is to analyze the apps for smartphones and tablets provided by Spanish talk radio stations. From a more focused point of view, we want to learn more about their structure, the kind of content they offer, their usability, the possibilities for personalization and participation, as well as any additional services they provide. In order to do so, we conducted a qualitative content analysis of the main Spanish talk radio stations' apps. The analysis -conducted during the last two weeks of January, 2015- consisted of reviewing the frequency of occurrence from the different functionalities included in our analysis code. These functionalities referred to aspects related to the structure, design, content, usability, customization, participation, and additional services offered in these apps. Before presenting the results, we advance some brief notes about the theoretical construct on which our research is based.

2. The mobile Internet as the new media ecosystem

The rapid development in new technologies for connection (3G and mobile broadband) and the constant improvements in devices have benefitted the introduction of the mobile Internet, which has spread very quickly. In a few years, its use and social penetration has increased so that Internet access is no longer exclusively through a personal computer. The Internet has become a service that can be accessed from many mobile devices. In fact, since 2008, use of mobile broadband, as opposed to fixed broadband, has increased. In 2010, the use of mobile broadband increased 65% worldwide, and in 2011 by 40% (*Fundación Telefónica*, 2013, pp. 33). During 2014, 2,315 mobile Internet access subscribers have been established worldwide. In this case the growth is 20%, mainly in the emerging markets (*Fundación Telefónica*, 2014, p. 30).

In Spain, the evolution is similar, with mobile broadband use rising over the past several years. According to the *Society of information Report* (*Fundación Telefónica*, 2014, p. 36), in the first quarter of 2014 70.4 out of 100 use mobile broadband, with an increase of 26.6% with respect to the same quarter of the previous year.

The diversification, in terms of how people access the Internet, fostered by improvements in mobile devices and also in technologies, has encouraged the evolution of the mobile Internet. In this context, mobility challenges the media industries, forcing them to look for new scenarios for adaption. One of the main activities carried out on a mobile device is reading the news and accessing legacy media; at the same time, users demand more personalized information. As a result the media industry feels compelled to modify their traditional models to adapt themselves to this new mobility context. This is why many media outlets are currently working to design multiplatform strategies (**Chyi**; **Chadha**, 2012, p. 432). Obviously, radio is also affected by all these changes. With the arrival of the Internet, radio is able to incorporate new services, content, and features beyond audio, including texts, images, videos, galleries, and live program streaming. Today radio websites provide content through streaming and podcasts that can be downloaded anytime, increasing the possibilities of retrieving, interacting with, and personalizing content. The resulting transformation of this "mediamorphosis" (Fidler, 1997, p. 37) has given birth to a new scenario that Cebrián-Herreros (2009, p. 21) has coined "cyberradio". Ortiz-Sobrino (2012, p. 8) uses the term "postradio" to describe a new paradigm in which radio is a hybrid system for multimedia content distribution, made possible by the combination of the Internet and mobile technology. The next stage of development will rely precisely in its mobility through these devices.

With the arrival of the Internet, it is possible to incorporate to radio new services, content, and features beyond audio including texts, images, videos, galleries, and live program streaming

On the other hand, the adaption of media content to this new mobile scenario has generally taken place in three very different stages (**Aguado**; **Martínez**, 2008, p. 112; **Cavanilhas**, 2009, p. 10-11).

- The first stage, called "adaptation", was defined by the adjustment of simple content (SMS, MMS, or WAP). The model was clearly oriented towards the exploitation of the new platform as an added value that was strongly linked to the brand. This stage was also greatly limited by low speeds, small screens, and high prices.
- The incorporation of the Internet and mobile phones gave rise to the second phase, called the "autonomy stage", where media industries started to design adapted strategies and created more optimized versions of their websites for mobile phones.
- As 3G technology and its social assimilation advances, along with the popularization of smartphones and tablets, a third stage has emerged. This phase, called "emancipation", is defined by the development of autonomous applications that allow access to informative content of a multimedia nature.

Logically, this is the ideal stage for any app development. Referring to radio apps, **Videla-Rodríguez** and **Piñeiro-Ote-ro** (2013a) agree with **Cebrián-Herreros** (2008) when stating that mobile radio demands a redesign for mobile access, particularly for the applications used for always and everywhere access:

"As *The horizon report 2012* states, the best applications are those that are fully adapted to the potential of the device itself, using positioning data, motion detection, access to social networks or web search -among otherswithin a complete and enriched experience" (Videla-Rodríguez; Piñeiro-Otero, 2013a).

3. Mobile devices as new tools for multimedia convergence

Mobile devices have become the leading tools for multimedia convergence. They also modify the way users produce and consume news. The technological convergence of mobile phones and multimedia began in the 90s, but popularization took much longer. As **Westlund** (2013, p. 6) suggests, in the social assimilation of these devices several mobile features have played a role; first, the functionalities offered -cameras, GPS services, touchscreens, social networks services, etc.-; second, the price reduction in the flat rates and the massive sales of smartphones and tablets. Thus, the use of mobile services began to spread when these features became available (**Ne**]; **Westlund**, 2012, p. 744).

In the evolution of the mobile devices market, the appearance of the *iPhone* in 2007 was pivotal. According to the *Gartner* figures for the 3rd quarter of 2014, the sales of smartphones increased by 30.2% (301 million units till the end of September).

Mobile devices have become the leading tools for multimedia convergence while apps present an opportunity to relaunch radio content and to increase its social use

According to *comScore MobiLens*, Spain has outpaced both the US and the UK by this measure in 2013 and 2014. This year, 83% of mobile users in Spain aged 13 and older used a smartphone, compared with 75% in the UK and 73% in the US. What's more, Spain already registers one of the highest levels of mobile phone penetration in Europe. *EMarketer* estimates that 85.4% of the entire population will use a mobile phone this year.

http://www.emarketer.com/Article/Smartphones-Rule-Spain/1011558

As for tablets, according to a recent study by *Gartner*, the number sold during 2012 and 2013 raised 55%. In fact, the company estimates that the technological panorama will drastically change in the upcoming years. Traditional laptops will be pushed into the background as opposed to tablets, which will become the leading competitors in the market. In Spain, the presence of tablets is 14%, twice the European average. Their use increased 500% in 2012, although they are used by only 2.7% of Internet users. The number of tablets in Spain is estimated to be around 2.2 million (*Fundación Telefónica, Society of information report*, 2013, p. 52). http://www.gartner.com/newsroom/id/2408515

In this context, the mobile Internet is a new media ecosystem defined by its connectivity, immediacy, portability, personalization, and ubiquity. According to **Aguado** and **Martínez** (2008, p. 110) these characteristics turn out to be their main appeal for media industries' involvement. In the case of radio, it can be streamed through multimedia receptors, smartphones, tablets, and other types of digital receptors (**Del-Bianco**, 2010). According to **Videla-Rodríguez** and **Piñeiro-Otero** (2013a), this multiplication of everywhere receptors has led *Arbitron* (2012) to refer to it as "the radio without limits".

4. Apps as new structures for content distribution

Mobile apps can be defined as computer systems developed specifically to work on mobile devices, offering several various functionalities and services to their users. In 2008 and at the same time as the launch of the *iPhone* 3G, *Apple* inaugurated its *App Store*. In the beginning, it offered 500 apps. In 2010, the arrival of the *iPad* also contributed to the increase in the number of apps and also in downloads. Regarding the number of apps available at the *App Store* there are over 1.4 million. This figure demonstrates the dramatic increase that has taken place in this market.

Accordingly, the 'app store' model has also been introduced by competitors, such as *Google* for its *Android* system. In 2014, the *Google Play Store* had passed from 700,000 apps to more than 1.5 million according to the data provided in the *appFigures report*. Thereby apps have become new structures for content distribution in the mobile ecosystem. *http://blog.appfigures.com/app-stores-growth-acceleratesin-2014*

These distributing structures have been consolidated through the massive purchase of smartphones and tablets and also with the increase in audience. According to *The future of mobile news* report (**Mitchell** *et al.*, 2012) in the United States 23% of tablet users and 28% of smartphone users access information through apps.

http://www.journalism.org/analysis_report/future_ mobile_news

In Spain, according to *The app date 2014* report, in the last year the number of active app users has continued to rise. *http://madrid.theappdate.com/vinformeestadoapps*

Now, in 2015, there are nearly 23 million users while 3.8 million apps are downloaded daily. The apps related to information are 53.1% of the total. *Android* is the operative system used by half of the smartphone and tablet users, followed by *iOS* and the *Windows Phone*. With these figures, *Android* leads the number of downloads with 87 million compared with 24 from *Apple*. According to the abovementioned *AIMC* report, 37% of those surveyed used an app to listen to the radio on mobile devices. Thus, apps have become one of the most flourishing markets in the mobile ecosystem. As many analysts predict, the increase in the number of apps and in the number of downloads will continue to rise in the future.

As seen, the rapid evolution of mobile devices has stimulated the development of cross-platform solutions for the distribution of radio content. In this context, apps present an opportunity to relaunch radio content and to increase its social use. Since 2011, several radio stations, including those selected for this study, have launched applications for mobile devices. Let us analyze what the top Spanish talk radio stations are offering in their apps for mobile devices.

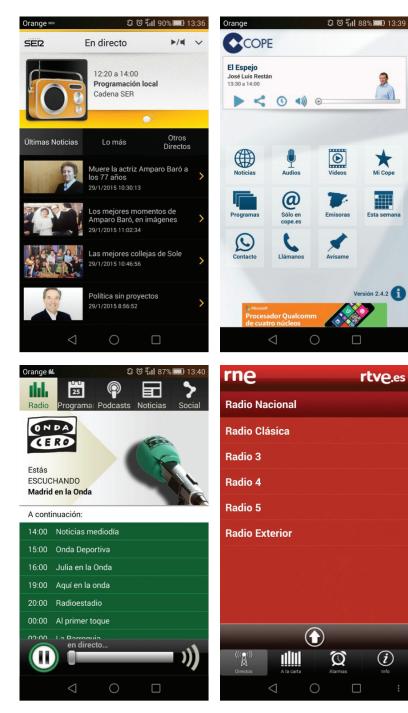


Figure 1. Screenshots from the analyzed apps

5. Methodology

First, we checked the mobile offerings of the most popular Spanish talk radio stations. A mobile presence attests to the interest of the stations in the mobile landscape. However, we maintain that the radio stations are not taking full advantage of the app format potential. Our starting hypotheses are:

H1) Spanish talk radio stations undervalue the potential of apps for mobile devices and they use them mostly as new channels for distribution and do not consider them autonomous and independent services.

H2) The mobile offerings provided by Spanish talk stations rarely include content that is strictly radio.

H3) Thus far, talk radio stations' apps seem to be mostly web-based, when considering both their design and content.

Since we could not find any previous code for radio apps, we reviewed the literature (**Canavilhas**, 2009; **Arroyo-Vázquez**, 2012; **Videla-Rodríguez**; **Piñeiro-Otero**, 2012; **Nozal-Cantarero**; **González-Neira**, 2012) to proceed with our own proposal. In order to study the morphology of each app, our code takes into account different aspects such as its structure, content, usability, personalization, participation, and the offer of additional services.

6. Results

In all the cases, the apps are identical both for *iOS* (*Apple*) and for *Android*. All the stations allow live listening through their applications. Their covers present a menu divided into sections.

As can be seen in the pictures, SER, COPE, and Onda Cero open their cover with the program being broadcasted. Then, the menu is shown at the bottom of the screen with the various sections provided: news, podcasts, 'the most', programming, etc. In the three stations, the structure is divided into two very different parts: i) the heading, where the icons of the program being broadcasted can be found; ii) the second part with the news (Cadena SER), the upcoming programming (Onda Cero), and the different sections with their corresponding icons (COPE), which makes its design much clearer and more visual. In the case of RNE, the public broadcaster, it is necessary to choose among different channels. In the menu at the bottom, there are four sections: live radio, personalized radio, alarms, and info. Data are summarized in table 1.

As for the content, all the apps include radio programming; the *Radio 1* (*Radio Nacional*) app also offers the text of news items. *Onda Cero* and *COPE* also include news bulletins within their podcast section. All the stations

allow listening or downloading entire programs or even small audio clips, as in *Onda Cero*. *Cadena SER* offers a section called "The most" where it collects some audio clips of the programs. Regarding other items, such as visuals or videos, pictures are included in the texts of many news items. The only two apps that offer a video section are the ones of *COPE* and *Radio 1*. Only *Onda Cero* and *COPE* provide the station profiles in *Facebook* and *Twitter*. Results are in line with those obtained by **Videla-Rodríguez** and **Piñeiro-Otero** (2013b) when analyzing the offer of 16 Spanish radio apps, including talk and specialized radio:

"A characteristic feature of the analyzed apps is its simplicity, particularly in the applications for *iPhone* and *Android*. Of all the possibilities that the language of web

Table 1. Structure in the mobile Spanish talk radio stations' a	apps
---	------

		Smartphones						
	SER	RNE	COPE	oc	COPE			
Cover	Cadena SER logo	RNE stations	Live radio/sections	Onda Cero logo	Cadena COPE logo			
Menus	Yes	Yes	Yes	Yes	Yes			
Sections	Live, Stations, Pro- gramming, Program- mes, Last news	News, Live, A la carta, Info	News, Audios, Videos, My <i>COPE</i> , Programmes, Only in <i>Cope.es</i> , Stations, This week, Contact, Call us, Notice me	Radio, Programming, Podcasts, News, Social	News, Audios, Videos, My <i>COPE</i> , Programmes, Only in <i>Cope.es</i> , Sta- tions, This week, Contact, Call us, Notice me, Find other listeners			

radio provides, most applications only offer audio and text content. Images are just limited to the ones of the application design (backgrounds, icons for programs and pictures of speakers)" (Videla-Rodríguez; Piñeiro-Otero, 2013b, p. 99).

Regarding advertising content, we find banners in the apps of *Cadena SER*, *COPE*, and *Onda Cero* and also in the *COPE* app for *iPad*. These banners generally appear at the bottom when opening the application and also during the navigation.

As for usability, the clearest and most visual menu is that of the *Cadena COPE* app. In all the apps, changing the section can be carried out through the menu, and navigability is relatively easy because content is vertically structured. Results are also similar with the ones of **Videla-Rodríguez** and **Piñeiro-Otero** (2013a) when analyzing the offer of 37 radio apps, including talk and specialized radio stations. According to the authors, "the limited offer of radio apps that

Table 2. Contents in the mobile Spanish talk radio stations apps

		Tablets			
Contents	SER RNE		COPE	ос	COPE
News (in text)	Yes	Yes	Yes	Yes	Yes
Bulletins	No	Yes	No	No	No
Audios	Yes	Yes	Yes	Yes	Yes
Scripts	No	No	No	No	No
Live radio	Yes	Yes	Yes	Yes	Yes
Videos (in news)	No	Yes	Yes	No	Yes
Pictures/Graphics	Yes (pictures)	No	Yes	Yes	No
Galleries	No	No	No	No	No
Podcasts	Yes	Yes	Yes	Yes	Yes
Programming	Yes	Yes	Yes	Yes	Yes
Clips	Yes	Yes	Yes	Yes	Yes
Whole programmes	Yes	Yes	Yes	Yes	Yes
Access to the Face- book profile	No	No	Yes	Yes	Yes
Access to the <i>Twitter</i> profile	No	No	Yes	Yes	Yes
The most	Yes	No	No	No	No
Specials	No	No	No	No	No
Premium contents	No	No	No	No	No
External links	No	No	No	Yes	Yes
Advertising	Yes	No	Yes	Yes	Yes

allow a user-based consumption reveals a very basic introduction of the radio on demand in the fourth screen. This is a common circumstance for almost the entire offer of radio apps, regardless the type of station or the receptor device". Only *Radio 1* app allows navigating within the programs and through stations.

In their apps for mobile devices Spanish talk radio stations have content that is mostly text for news, with limited audio clips, videos, pictures, graphs, and external links

Personalization services are scant in all cases. Extending the info or enlarging the font or the pictures is not permitted nor is adjusting the privacy settings. No app for smartphone takes advantage of the geolocalization possibilities or provides weather forecasts. It is not even possible to add audio to the playlist, something that is available in the *BBC* and *CBC* apps¹.

Internet radio has strengthened the relationship with its listeners through new, closer, and more instantaneous ways of interaction like the ones that social networks provide (Videla-Rodríguez; Piñeiro-Otero, 2013a). Thus, communication between station and listeners has become more horizontal because producers and consumers don't play separate roles, but they interact following new rules (Jenkins, 2006; Moreno; Martínez-Costa; Amoedo, 2009). However, results show that possibilities for participation are also meager. All the apps allow the content to be shared through email, messaging services such as *Whatsapp*, or social networks like *Facebook* or *Twitter*. However, none of them allow parti-

Table 3. Usability in the mobile Spanish talk radio stations' apps

		Smartphones				
	SER	SER RNE COPE OC				
Navigation within the sec- tions	No	No	Yes	No	Yes	
Changes of section	Yes	Yes	Yes	Yes	Yes	
Navigation through contents	No	Yes	Yes	No	No	
Navigation through pro- grammes	No	Yes	No	No	No	
Navigation through stations	No	Yes	No	No	No	

Table 4. Possibilities for personalization in the mobile Spanish talk radio stations' apps

	Smartphones				Tablets
	SER	RNE	COPE	ос	COPE
Favorites sections	No	No	No	No	No
Weather forecast personal- ization	No	No	No	No	No
Geolocalization	No	No	No	No	Yes
To extend the info	No	No	Yes	No	Yes
To enlarge image	No	No	No	No	No
To enlarge font	No	No	Yes	No	No
To adjust the privacy settings	No	No	No	No	No
To add to playlist	No	No	No	No	No

cipating in polls or sending comments, content, or questions for digital interviews.

With regard to additional services, we can observe the alarm service from *Radio 1* and the "Notice me" section in *COPE* that allow users to receive notifications at the start of previously selected programs. Despite offering additional services and exclusive content is a best practice of leading apps (ex. *BBC* or *NPR*), no more additional services are observed in the analyzed apps.

Personalization services are scant in all cases. Possibilities for participation are also meager

7. Conclusions

Mobile devices have become the modern version of radio receivers, but radio stations are still working to adapt their content to the new mobile context. From our analysis, we can extract the following conclusions:

- The most popular talk radio stations in Spain have their own apps for smartphones covering *iOS* and *Android*, the main operative systems.
- The analyzed apps are identical for iOS and Android. All allow live listening and all are free.
- The only *iPad* app is for *COPE* and it is free. The app allows for live listening. Its design is clear and visual.
- Content is mostly composed of text for news, with limited audio, videos, pictures, graphs, and external links. Despite being radio station apps, much of the news does not include audio. Some of the apps offer pictures and only *COPE* has a section for videos. The text in all apps serves as the main element. Hypertext is underused. All of the apps allow listening or downloading of entire programs and even audio clips. Advertising can be found in four of the five analyzed apps, perhaps as a way of monetizing the product, because the apps freely downloaded.
- Usability is quite poor, having to always return to the main

Table 5. Possibilities for	participation	in the	mobile	Spanish talk r	radio
stations' apps					

		Smartphones			
	SER	RNE	COPE	ос	COPE
Possibility of adjusting the volume from the app	Yes	Yes	Yes	Yes	No
Possibility of sharing through email	Yes	No	Yes	No	No
Possibility of sharing through <i>Twitter</i>	Yes	Yes	Yes	No	No
Possibility of sharing through Facebook	Yes	Yes	Yes	No	No
Possibility of sharing through Skype	Yes	Yes	Yes	No	No
Possibility of sharing through <i>Whatsapp</i>	Yes	Yes	Yes	No	No
Weblog	No	No	No	No	No
Chat	No	No	No	No	No
Polls	No	No	No	No	No
Contests	No	No	No	No	No
Comments	No	No	No	No	No
Digital interviews	No	No	No	No	No
Send pictures	No	No	No	No	No
Send other contents	Yes	No	No	No	No

Table 6. Additional services provided by mobile Spanish talk radio stations' apps

		Tablets			
	SER	COPE			
External searcher	No	No	No	No	No
Internal searcher	No	No	No	No	No
News library	No	No	No	No	No
A la carta	Yes (section)	Yes (section)	No	No	No
Pastime section	No	No	No	No	No
Billboard section	No	No	No	No	No
Stock market section	No	No	No	No	No
Traffic section	No	No	No	No	No
Book recommenda- tions	No	No	No	No	No
Alerts/alarm clock	No	Yes	Yes	No	Yes

menu. There are limited options for navigating through sections, content, programs, and stations.

- Possibilities for personalization remain unexplored—something that seems strange when considering that mobile consumption is mostly personal. There are few opportunities to save favorites or playlists. Geolocalization is underutilized as a way to adjust the content or the programming.
- It is only possible to "participate" socially by sharing content through email, *Twitter*, or *Facebook*. Neither the smartphone nor the tablet apps allow users to send com-

ments, pictures, or other content. It is not possible to take part in polls or send questions to an interviewee in a digital interview, etc.

- Finally, we do not find many additional services. None of the apps have a search box –their own or an external one, a tool that can be found in the *NPR* or *BBC* apps. Two apps include additional services: *Radio 1* has an alarm service and *COPE* has the "Notice me" section.
- The results allow us to confirm our 3 starting hypotheses: H1) Spanish talk radio stations undervalue the potential of apps for mobile devices and they use them mostly as new channels for distribution and do not consider them autonomous and independent services for a more enriched consumption of radio. The under-use of tools and devices for personalization and participation seems particularly serious coupled with a very poor degree of usability

H2) Except for *Radio 1*, the remaining apps rarely include any content that is strictly radio. Text plays a central role in news items, with scant multimedia elements.

H3) Thus far, talk radio stations' apps seem to be mostly web-based, especially considering their content rather than their design.

We can summarize by saying that the most popular Spanish talk radio stations' apps are still in the "adaption stage" attempting to enter the next phase. In upcoming studies, we hope to witness promising developments indicating that talk radio is optimizing and taking full advantage of the compelling potential these apps can provide².

Spanish talk radio stations undervalue the potential of apps for mobile devices; they use them mostly as channels and do not consider them as autonomous and independent services

Note

1. Results are also in line with those obtained by **Cordeiro** and **Paulo** (2014) for the analysis of Portuguese *Rádio Comercial* and *RFM* apps. The authors acknowledge the efforts made by radio stations, but they add that it would be desirable to make some improvements by updating with more content, interactivity, and customization.

2. For instance, on May, 12, four months after our data collection, *Cadena SER* presented its new app. It includes improvements in its design and navigation, multimedia contents, streaming service, alarm clock, live listening to more than 100 *Cadena SER*'s local stations and more personalization options when saving the podcasts. It also offers up-to-date news and the possibility to share contents on social networks such as *Facebook* or *Twitter*. Still few options to participate, additional services or exclusive content just for the app.

8. References

Aguado, Juan-Miguel; Martínez, Inmaculada (2008). "La comunicación móvil en el ecosistema informativo: de las alertas SMS al mobile 2.0". *Trípodos*, n. 23, pp. 107-118.

http://www.raco.cat/index.php/Tripodos/article/ download/118915/154119

Arbitron (2012). "The infinite dial 2013: navigating digital platforms". *Edison research*, April 2.

http://www.edisonresearch.com/the-infinite-dial-2013navigating-digital-platforms

Arroyo-Vázquez, Natalia (2012). *Información en el móvil,* Barcelona: EPI-UOC, colección *El profesional de la información*. ISBN: 978 84 9029 847 3

Canavilhas, **João** (2009). "Contenidos informativos para móviles: estudio de aplicaciones para iPhone". *Textual & visual media*, v. 2, pp. 61-80.

http://www.bocc.ubi.pt/pag/canavilhas-joao-contenidosinformativos-para-moviles.pdf

Cebrián-Herreros, Mariano (2008). "Radio y convergencia tecnológica en Europa. Expansión de los cibermedios fijos y móviles". En: Ortega, Leopoldo (comp.). *Memorias de la 7ª Bienal internacional de Radio México*. Colonia del Valle: Radio Educación, pp. 69-88.

Cebrián-Herreros, Mariano (2009). "Expansión de la ciberradio". *Enl@ce*, v. 6, n. 1, pp. 11-23. *http://www.scielo.org.ve/scielo.php?pid=S1690-*

75152009000100002&script=sci_arttext Cordeiro, Paula; Paulo, Nádia (2014). "A rádio numa app: tendências da convergência multimédia e os conteúdos da rádio". Revista media & jornalismo, v. 13, n. 1, pp. 117-

134.

http://goo.gl/WRwZJ1

Chyi, Hsiang-Iris; Chadha, Monica (2012). "News on new devices". *Journalism practice*, v. 6, n. 4, pp. 431-449. *http://dx.doi.org/10.1080/17512786.2011.629125*

comScore (2012). "Mobilens: Smartphone penetration reaches 55 percent in October 2012". *http://goo.gl/j2j8bP*

Del-Bianco, Nelia R. (2010). "O futuro do rádio no cenário da convergência frente às incertazas quanto aos modelos de transmissão digital". *Revista de economía política de las tecnologías de la información y comunicación,* v. 12, n. 1, pp. 1-19.

http://repositorio.unb.br/bitstream/10482/12282/1/ ARTIGO_FuturoRadioCenario.pdf

Fidler, Roger (1997). *Mediamorphosis: Understanding new media*. Thousand Oaks: Pine Forge Press. ISBN: 978 0803990869

Fundación Telefónica (2013). Society of information report 2013. http://www.fundaciontelefonica.com/arte_cultura/ sociedad-de-la-informacion/sie2013

Fundación Telefónica (2014). Society of information report 2014.

http://www.fundaciontelefonica.com/arte_cultura/sociedadde-la-informacion/informe-sociedad-de-la-informacion-enespana-2014

Gartner (2012). *Market share: Mobile devices*, Worldwide, 1Q12. https://www.gartner.com/doc/2015915/market-sharemobile-devices-worldwide

Gartner (2013). "Gartner says worldwide PC, tablet and mobile phone combined shipments to reach 2.4 billion units in 2013". *Gartner newsroom*, April 4.

http://www.gartner.com/newsroom/id/2408515

Gatner (2013). "Gartner says by 2016, more than 50 percent of mobile apps deployed will be hybrid". *Gartner newsroom*, February 4.

http://www.gartner.com/newsroom/id/2324917

Jenkins, Henry (2006). *Convergence culture: Where old and new media collide*, New York: NYU Press. ISBN: 978 0814742952

Mitchell, Amy; Rosenstiel, Tom; Houston Santhanam, Laura; Christian, Leah (2012). "The future of mobile news". *Pew Research Centre- Journalism & media*

http://www.journalism.org/analysis_report/future_ mobile_news

Moreno, Elsa; Martínez-Costa, Pilar; Amoedo, Avelino (2009). "Radio and the Web: Communication strategies of Spanish radio networks on the Web (2006-2008)". *Observatorio (OBS*) Journal*, n. 10, pp. 121-137.

http://www.obs.obercom.pt/index.php/obs/article/ download/288/278

Nel, François; **Westlund**, **Oscar** (2012). "The 4C's of mobile news". *Journalism practice*, v. 6, n. 5-6, pp. 744-753.

Nozal-Cantarero, Teresa; González-Neira, Ana (2012). "La interactividad en las aplicaciones periodísticas para iPad

italianas y españolas", *Estudios sobre el mensaje periodístico*, v. 18, pp. 639-648.

http://revistas.ucm.es/index.php/ESMP/article/view/40943

Ortiz-Sobrino, Miguel-Ángel (2012). "Radio y postradio en España: una cohabitación necesaria y posible". Área *abierta*, v. 12, n. 2, pp. 1-16.

http://revistas.ucm.es/index.php/ARAB/article/view/39637

The App Date (2012). "Informe sobre apps en España. Tercer cuatrimestre de 2012". *Madrid The App Date*, 24 marzo. *http://madrid.theappdate.com*

Videla-Rodríguez, José-Juan; Piñeiro-Otero, Teresa (2012). "Apps de radio. Movilidad para un medio radiofónico sin límites". *Prisma.com*, v. 17, pp. 1-7

http://revistas.ua.pt/index.php/prismacom/article/ viewFile/2020/pdf

Videla-Rodríguez, José-Juan; Piñeiro-Otero, Teresa (2013a). "La radio móvil en España. Tendencias actuales en las apps para dispositivos móviles". *Palabra clave*, v. 16, n. 1, pp. 129-153.

http://palabraclave.unisabana.edu.co/index.php/ palabraclave/article/view/2579/3085

Videla-Rodríguez, José-Juan; Piñeiro-Otero, Teresa (2013b). "Hacia una radio social. Interacción, proyección y repercusión de las cadenas españolas en redes sociales". *Icono14*, v. 11, n. 2, pp. 83-113.

http://www.icono14.net/ojs/index.php/icono14/article/ view/592

Westlund, Oscar (2013). "Mobile news". *Digital journalism*, v. 1, n. 1, pp. 6-26.

http://www.tandfonline.com/doi/pdf/10.1080/21670811.2 012.740273

http://dx.doi.org/10.1080/21670811.2012.740273

Nueva colección EPI Scholar

Libros académicos y científicos de Información y Documentación

Primer título:

Cibermetría. Midiendo el espacio red de Enrique Orduña-Malea e Isidro F. Aguillo

A pesar del crecimiento de la disciplina de la Cibermetría desde mediados de la década de los noventa, son escasos los libros académicos o manuales dedicados en exclusiva a la misma desde un contexto de las ciencias de la información y documentación. Este libro pretende cubrir este claro hueco en la literatura tanto nacional como internacional.

http://www.elprofesionaldelainformacion.com



El profesional de la EDITORIAL UOC