ISSN (online): 2014-2242 / www.cac.cat

QUADERNS DEL CAC

Radio, a business model in transition: supply and sales strategies in the digital context

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Received on 4 April 2015; accepted on 27 May 2015

Abstract
Today's complex situation is a source of concern for radio broadcasters who, although their audiences are growing, are witnessing a drop in advertising revenue, the basis of their business model. Given these adverse circumstances, their human and economic resources have been allocated to providing a presence on a range of digital platforms. In order to ensure a return from their efforts, radio production aimed at online supports is mostly generated from content produced for conventional broadcasting. This paper looks at the challenges posed for broadcasters by the economic crisis and how they are attempting to develop solutions in the digital era.

Keywords
Radio, digital platforms, crisis, advertising, business strategies.

Resum
La complexa situació actual preocupa els operadors radiofònics, que, tot i que veuen augmentar les seves audiències, experimenten una reducció de la inversió publicitària, base del seu model de negoci. En aquestes circumstàncies poc favorables, han dedicat recursos humans i econòmics a desplegar la seva presència en diferents plataformes digitals. Per rendibilitzar esforços, la producció radiofònica adreçada als suports online *es genera, majoritàriament, a partir dels continguts emesos per l'antena convencional. Aquest treball s'apropa als operadors per esbrinar com fan front als reptes que la crisi econòmica els planteja i per presentar les solucions que estan assajant en l'era digital.*

Paraules clau
Ràdio, plataformes digitals, crisi, publicitat, estratègies empresarials.

1. Introduction

Radio is currently undergoing a transition (Ofcom 2007, 2014; Winseck 2010). The oldest communication medium must tackle various challenges in the current context of convergence that endanger its very essence and evolution as a means of mass communication. The new ways to transmit radio signals, new types of radio consumption, audience fragmentation and disaggregation, new internet environment, the co-existence of analogue and digital, reduction in advertising revenue, economic crisis and radio's obsolete business model represent the main internal challenges faced by radio broadcasters on a daily basis, in addition to competition from the digital ecosystem.

As claimed by Zallo (2010), digital technologies have shaken up the very foundations, relations and equilibrium of culture and social communication and the current economic and financial crisis has aggravated this situation in several ways. The radio sector is aware that the days are numbered for radio as we know it (Hertz waves via a transistor), involving a transformation in radio communication both in terms of production and also consumption (Venzo 2008). Consequently broadcasters must redesign their business model[1] and define practicable business strategies that ensure the survival of the medium and its role in society. Within the digital environment, identifying viable business models has become a primordial and controversial but necessary question especially for the traditional media (Macnamara 2010).

In evolutionary terms, the survival of radio (and that of any species) depends on its capacity to adapt and specialise and thereby outdo its rivals. Radio broadcasters must start taking decisions with a clear business vision for the future. Obviously this is no easy task when there are no apparent examples of success and the trial and error formula is not suitable given the dearth of resources.

2. The current situation of the radio sector

This section aims to provide an overview of the current situation of the Spanish and Catalan radio industry by means of three aspects that affect the design of its business model and could determine its evolutionary transition. The first, is the notable drop in advertising revenue since 2008 as a consequence of the global economic crisis; secondly, although the number of radio listeners seems to be stable and may have even risen slightly, the digital environment allows for new forms of asynchronous and also archived consumption with the consequent audience fragmentation; and, last but by no means least, the implementation of different types of digital devices has altered how people listen to and consume radio content. All three factors give rise to new ways for radio to do business.

2.1 The drop in advertising revenue

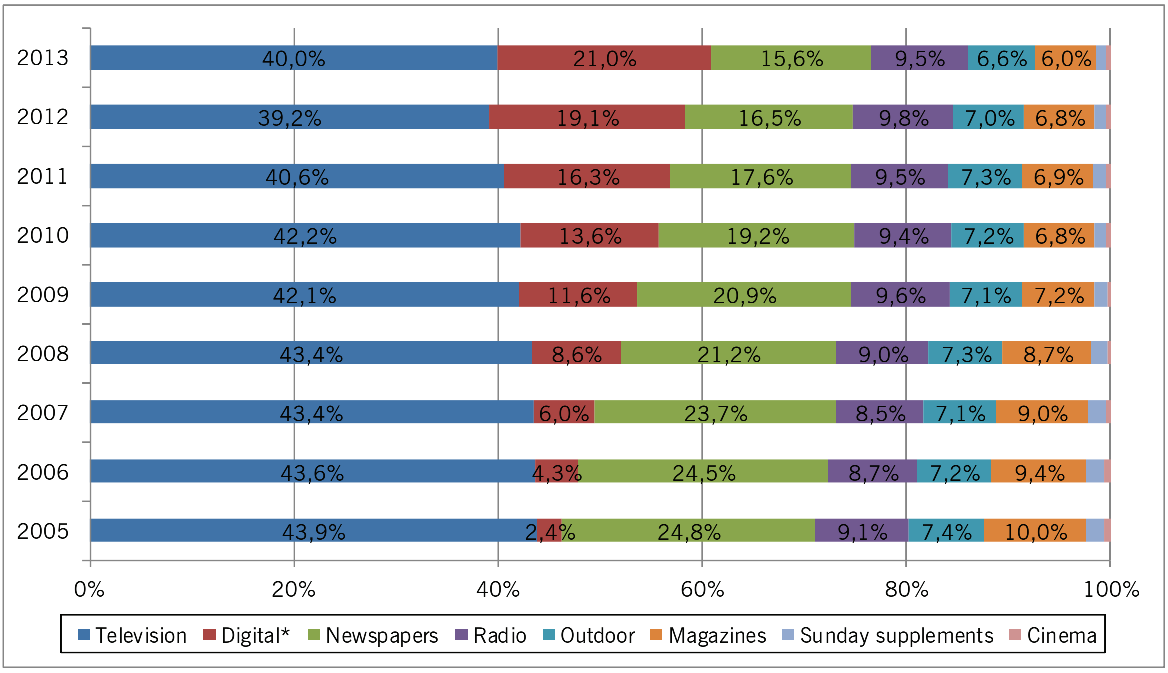
In the traditional business model for radio in Spain and Catalonia, commercial broadcasters rely on advertising revenue (CNMC, 2014) while public broadcasters are supported by government contracts, although Catalunya Ràdio combines public financing with advertising. Over the last few years, the world economic crisis starting in September 2007 and the emergence of new media have resulted in cutbacks in the advertising budget of advertisers, this investment being redistributed among the existing media. In addition to this situation, part of the overall investment has also migrated towards digital media in detriment to conventional media. These two facts have considerably reduced the revenue received by the radio industry as a whole in the last few years.

Figure 1 shows how advertising revenue has been redistributed among conventional and digital media in Spain during the period before the crisis and during, and how investment in digital media is exponentially increasing its share. Television and press have been hardest hit by this redistribution while radio seems to be performing slightly better, albeit losing some investment.

Although it seems that advertisers still have faith in radio, another issue is the volume of revenue this actually brings. The amount of advertising may not have fallen but the average price of an insert has (Infoadex 2014). Between 2007 and 2013 revenue fell by 40.5% for Spain as a whole, with a market share of around 9.5%. In the same period the revenue for Spanish-wide radio dropped from 678 million euros to 403.6 million (Infoadex 2014).

In fact, advertising revenue is going through the biggest reduction in its history at an international level (Pfeiffer & Zinnbauer 2010), a situation also seen in the Spanish and Catalan markets. In Catalonia advertising revenue fell by 42.9% between 2007 and 2013, 2.4 points more than in Spain. Catalan radio has gone from receiving 75.3 million euros in 2007 to 43 million in 2013 (Media Hotline 2014). Consequently Catalan radio's share of advertising revenue on conventional media has

Figure 1. Distribution of advertising revenue in the media in Spain, 2005-2013 (as a percentage)



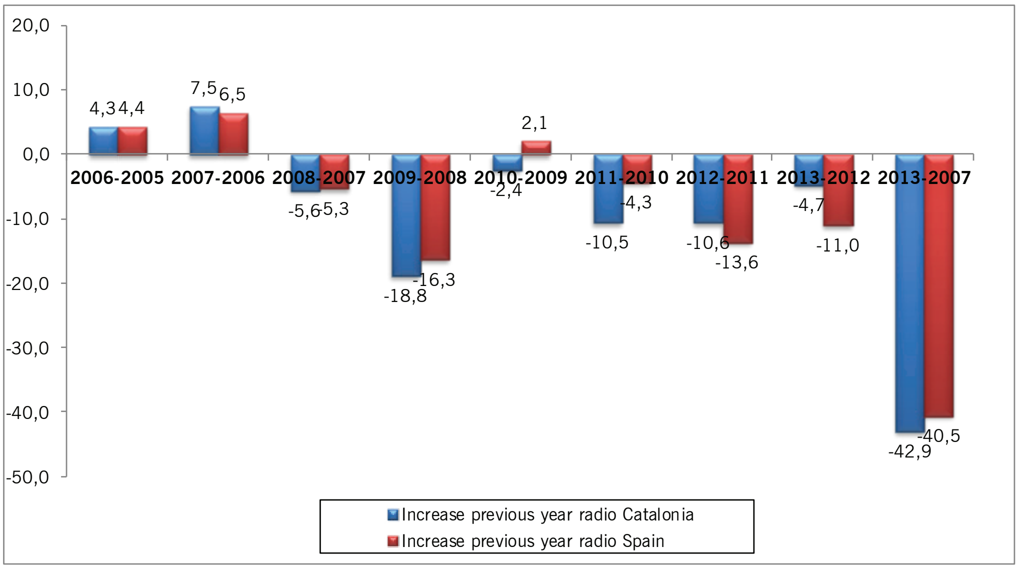
*The Digital data include Internet and Mobiles.
Source: Infoadex (2014).

Table 1. Trend in advertising revenue on the radio in Spain and Catalonia, 2005-2013 (in millions of euros)

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Spain	609.9	636.7	678.0	641.9	537.3	548.5	524.9	435.5	403.6
Catalonia	67.2	70.1	75.3	71.1	57.7	56.3	50.4	45.1	43.0

Source: Author, based on data from Infoadex (2014) and Media Hotline (2014).

Figure 2. Comparison of the drop in advertising revenue on radio in Spain and Catalonia, 2005-2013 (in percentage terms)



Source: Author, based on data from Infoadex (2014) and Media Hotline (2014).

gone from 10.6% in 2007 to 14.5% in 2013. Although radio seemed to be the best medium in terms of withstanding the initial drop in advertising revenue in both Spain and Catalonia, as from 2009 it has seen a notable reduction in its turnover with an even greater drop in Catalonia, as can be seen in Table 1.

We can therefore see that the drop in advertising revenue was greatest in the Catalan market in the early years of the crisis (2008-2011) while in the last two years this situation reversed and the Spanish market underwent the sharpest fall, as shown in Figure 2. The improvement seen by radio compared with the other media is essentially thanks to the good performance by local advertisers. Nevertheless this stronger local market started to break up as from 2009, when the unrelenting slump in consumption meant that these advertisers could no longer withstand the economic crisis (Yarza 2011, 123).

Broadcasters think this situation will continue until the economic situation improves and consumption increases, as well as believing that the volumes of business seen before the crisis are unlikely to be repeated. In this respect advertiser confidence in radio for their advertising does not offset the substantial cutbacks suffered constantly by broadcasters every month in their advertising revenue, resulting in reductions in the broadcaster's workforce, more outsourcing and the shelving of growth or improvement plans that entail any kind of investment.

This initial analysis of the radio industry paints a complex scenario in terms of guaranteeing the medium's financial viability, one which requires the development of business strategies to lessen radio's dependence on conventional advertising as a key source of revenue. In other words we must shift, as soon as possible, from the confines of the classic model of media to one of platform since radio needs to be not only online but also on mobile devices, whose use is already widespread.

2.2 Audience sustainability and growth

According to the *Estudio General de Medios* (AIMC 2014) and the *EGM Baròmetre Catalunya* (AIMC & Fundacc 2014), 61.0% of Spain's population and 63.6% of Catalonia's population listen to the radio every day. The number of listeners in both has increased steadily and notably since the start of the economic crisis and today's numbers are much higher than those seen at the end of the analogue era when there was much less media competition. Nonetheless, except in specific periods, radio's rate of penetration in Spain as a whole has been, and continues to be, one of the lowest in Europe; paradoxically its prestige has risen in parallel with its level of influence. There are different interpretations of this state of affairs, one being that it might be related to shortcomings in demoscopic research given the extraordinary fragmentation in the number of broadcasters and the disparate market supply in different geographical areas (Martí 2004).

Figure 3 shows this trend in radio's penetration in Spain and Catalonia and also includes that of the internet. In this respect, radio is the second medium with the highest penetration after television in Spain (AIMC 2014) while in Catalonia the internet is second and radio relegated to third (AIMC & Fundacc 2014), a situation that may also occur in the rest of Spain in the near future.

Music radio is currently the favourite among Spanish (57.2%) and Catalan (56.4%) listeners, followed by general interest radio (47.0% in Spain, 49.3% in Catalonia) and, to a lesser degree, news radio (4.9% in Spain, 6.3% in Catalonia) (AIMC 2014; AIMC & Fundacc 2014). One factor to bear in mind, pointed out by previous studies covering Catalonia, is that there's been a significant increase in young listeners of music radio since 2009 (Llorens 2014), thereby gradually reducing the average age of Catalan listeners. Regarding listening quality, in the case of young Catalans this is sporadic with limited exposure time and essentially concentrated in prime time (Martí et al. 2010, 74-75), a circumstance that could be extrapolated to other population segments and geographical areas.

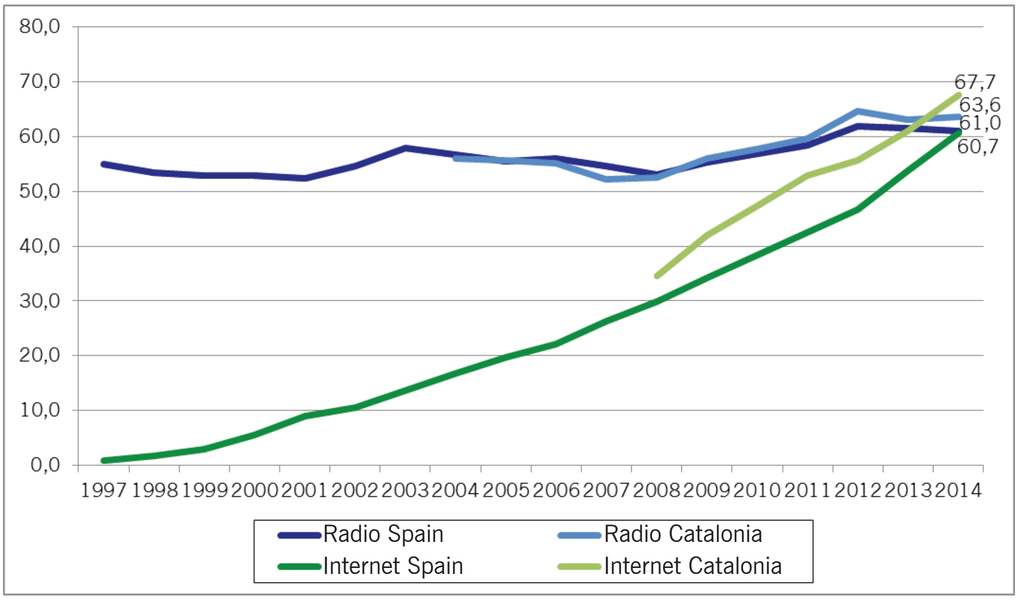
2.3 The new paradigm of the internet and portable devices

The spread of the internet has led to a revolution at a technological and social level, among others, shaking up the traditional postulates of how radio should be carried out and perceived. As claimed by Franquet, perhaps 'the changes are not inherent to the medium of radio' (2008, 10) but radio may be most affected. New consumption habits (multi-platform and on mobile devices) 'could endanger the idyll sustained for decades between radio and this young audience' (Franquet 2008, 10). The report *Spain's Digital Future in Focus 2013* (comScore 2013) showed that, in 2012, Spain had become the European country with the highest penetration of smartphones (66%), above the European average (57%). Regarding digital consumption, the study *From Platforms to People, Spain 2014* (comScore 2015) points out that the mobile audience aged over 18 already totals about 23 million users, also noting the quite strong emergence of the so-called "multi-platform user".

According to the studies *La radio: tradicional vs online* (AIMC 2012) and *Navegantes en la Red* (AIMC 2015), online radio consumption is growing in Spain. 22% of internet users listen to the radio every day online and 19.3% via their mobile phone (AIMC 2015). In weekly consumption terms, these figures reach 42.8% and 36.5%, respectively (AIMC 2015). However, 17.2% of Spanish internet users download radio programmes to listen to them at a later time. Although the mobile has been proposed as the preferred portable device to listen to online radio, 18.4% of Spanish users state they have listened to the radio on their tablet in the last month (AIMC 2015). Studies also show that live streaming prevails over podcasts suggesting that, for online listeners, the internet is just another means of listening to analogue content (AIMC 2012). In the case of young Spanish and Catalan listeners aged from 14 to 24, internet consumption exceeded TV consumption for the first time in 2014 and is still much higher than radio consumption (AIMC 2014; AIMC & Fundacc 2014).

Considering that digital advertising revenue totals 878.4

Figure 3. Trend in the penetration of radio and internet in Spain and Catalonia, 1997-2014 (in percentage terms)



Data: radio listeners/day; internet/yesterday.

Source: Author, based on data from *Estudio General de Medios* (AIMC 2014) and from *EGM Baròmetre Catalunya* (AIMC & Fundacc 2014).

million euros in Spain, of which 39.9 million is spent on mobile devices (IAB Spain 2014), the internet and portable devices have become a new commercial opportunity for the radio industry.

A review of the literature reveals a lack of consensus regarding what should be conventional media's business model in the digital environment (Collins 2011; Pavlik 2008; Winseck 2010; among others). According to Chan-Olmsted and Ha (2003), the key to success lies in improving the product by increasing its efficiency and establishing new ways to relate to clients. In any case the leading radio broadcasters have decided to provide free rather than subscriber content while added value services are limited mostly to sound files and archives (Rojo et al. 2008). Traditional radio broadcasters are online more as insurance against the future than with any clear idea of exploiting their potential with new types of content and new distribution methods (Nguyen 2008).

3. Methodology

This study aims to investigate the causes of the crisis affecting the radio industry over several decades and to define the business strategies adopted by conventional radio broadcasters to tackle this situation. The methodology used is based on an exhaustive review of scientific publications focusing on several factors which, one way or another, form part of the root cause of the crisis. Professional reports on the sector have also been examined and, finally, semi-structured interviews have been carried out with management from the Broadcasters Group of Catalunya Ràdio, RAC1, Cadena SER and RNE. Their positions and the company they work for will be specified throughout the text.

The following criteria were applied in creating the sample:

- Public/commercial ownership. The former insofar as public service aims to encourage innovation, creation, attention to culture and also audience participation.[2]
- State/autonomous community ecosystem.
- Audience share in each ecosystem.

A cross-analysis of these criteria allowed us to analyse different situations and detect the presence of particular features related to ownership, the ecosystem and/or audience. The research was carried out by the Radio Observatory of Catalonia (GRISS[3]-UAB) during the period 2012-2014.

4. Looking for new sales strategies

When conventional broadcasters started on the internet they found themselves in a new scenario where their rivals were multiplying, where the radio brand had become diluted and where, moreover, it was and still is difficult to find a profitable model of business. Given these circumstances, "post-radio" management (Ortiz 2012) could not continue to apply the traditional broadcasting parameters.

As a result of the uncertainty produced by the digital world, each broadcaster applied heuristic policies in order to reproduce, in the digital environment, the positioning they already enjoyed in the conventional radio broadcasting ecosystem. An analysis of the interviews carried out reveals that each broadcaster/channel has followed a particular route map in line with its own interests irrespective of its type of ownership and/or reach.

For most of the interviewees, the first issue to be resolved was the profitability of content or, in other words, finding the best way to exploit content in the digital sphere. The social impact of digital media is a key factor for public radio and most particularly for RNE, the only broadcaster of those analysed that is financed exclusively without advertising, as "we benefit from new technologies insofar as the multiplication of the medium also multiplies the possibilities of listening to radio" (director-programming-RNE). For commercial broadcasters, and also for Catalunya Ràdio with mixed financing, the interrelationship between audience share and advertising revenue continues to form the basis of their approach. The difficulty of agreeing a commonly accepted standard to examine online audiences[4] means that it's taking longer to transform the commercial system in which it's essential to distinguish between listener and user.

One of the effects of the economic crisis is related to advertising, "… as a lot of the brands that used to invest especially in media that are more expensive from a profit point of view […] are going to look for safe media […] and radio was one of the conventional media, the most economical medium" (head-marketing-Publipressmedia-RAC1). Although this circumstance helped to sustain the radio broadcasting industry in economic terms it has also slowed up the exploration of more innovative forms of advertising and commercial strategies. Although there's been a rise in pre-roll ads on radio channel websites, in addition to banners, interstitials and pop-ups, radio ads still head the ranking for advertising on radio broadcasts.

In fact, the main concern of broadcasters has been to resolve the transfer of analogue content to digital "without realising that this migration, without an adequate exploitation model, was an incomplete migration" (director-Catalunya Ràdio). In this respect sponsorship, first via streaming and then podcasts, was the formula initially used by the online radio business although essentially this is merely "prioritising sales associated with analogue" (director-RAC1).

Although advertisers are still seduced by a channel's audience share they increasingly realise the importance of the online environment which, in the words of the director of RAC1, becomes "another booster station", in this case digital. However, the conditioning factors are significantly different because "figures aren't published quarterly anymore but rather daily and even overnight" (director-strategic area-Catalunya Ràdio). And broadcasters can even measure the impact of the number of podcast downloads and of the activities taking place on social media at any given time. There's still a long way to go, however, as the channel's potential is not necessarily reflected directly in the online environment: "although we have over 10 million listeners on six radio channels, we can't get 300,000 followers on Facebook" (Prisa Brand Solutions-director-advertising-Cadena SER).

Most of the interviewees acknowledge a lack of experience in the new digital environment and the need to adopt clear strategies. Although the case of RNE is different, the world economic crisis and development of the online environment has accentuated financing concerns. In principle "the budget has had to be shared out [...] we don't have any other sources of financing [...] another thing is that, traditionally, we see certain kinds of cultural sponsorship much more on television than on radio and Interactive department[5] hasn't started working on this formula yet" (director-programmes-RNE), a circumstance that slows up the adaptation of a new model to exploit radio content.

4.1 Profiting from content

The 2.0 environment broadens the concept of radio consumption, this no longer being exclusively lineal. But it also alters the object to be consumed which, in addition to sound, can also be complemented with text and/or image. Adding value to content is one of the key aims of broadcasters who believe this will help to reinforce the digital brand.

In conventional broadcasting content was supplied by using low risk formulas[6] that ensured the largest number of listeners would be attracted as advertising revenue depended on their volume. However, this quantitative principle cannot be transferred to the online environment where specialisation is fundamental for a channel to differentiate itself in a highly competitive market. From this perspective, broadcasters must reconcile the production of analogue radio with the construction of digital radio.

Transferring conventional broadcast content to corporate sites, either as a programme or section or via audio downloads and their subsequent consumption on mobile devices, has been the most widely used method by broadcasters taking part in the study. At the beginning, the absence of an agreed tool to measure and compare the different consumption rates for each channel encouraged broadcasters to design their own measures which each has used as it sees fit when negotiating with advertisers. Apart from the number of listeners, broadcasters' discourse has been extended with comments such as "in May we had 1,764,000 downloads" (director-RAC1); "brands will be reflected beyond the aerial" (area-audience-Catalunya Ràdio); or "we have close to 1,300,000 unique users on cadenaser.com" (head of digital-Cadena SER). From a less tense perspective regarding audience figures, RNE points out that "normally the programmes with the most download [...] are also the ones with the largest audiences. But that doesn't mean there aren't programmes with more downloads than others because of programme timings" (director-programmes-RNE).

Marketing and sales must start by making the most of radio content, a strategy which, apart from financial results, must also have social impact. For Catalunya Ràdio this means concentrating on projects associated with brands that generate values similar to those of the broadcaster/channel. iCat.cat works along these lines, "the emerging music and culture portal",[7] the result of converting iCat FM, the first experience in Catalonia and Spain to unite the concepts of radio and internet which, among its initial actions, became the radio broadcaster for the Sónar festival in 2013,[8] one of the most important creative, independent music festivals, values shared by the channel. This alliance has allowed it to stream concerts,[9] projecting itself towards an international audience[10] interested in such content. This strategy forms part of what the director of Catalunya Ràdio defines as "collaborative publicity"; in other words "common strategies with the commercial company itself". An analysis of the interviews shows that this formula has now become a widespread trend followed by a large number of broadcasters. However, in the case of RNE this is limited to just cultural content "because we're allowed cultural financing via the Foundations[11]" (director-programmes-RNE).

The link between values and brands is constructed by Cadena SER via "Brand Day" and "Brand Week", devoting one day or week of programming to a specific brand. "It's in the interview format, in ads positioned together with the pips on the hour, in mentions by commercial voices on each of the programmes" (Prisa Brand Solutions-director-advertising-Cadena SER). Sometimes it's the channel itself that creates a concept developed in the form of content on the main programmes broadcast, such as "El congreso de la vida buena"[12] [The congress of the good life]. In this way the brand is associated to the city hosting the congress, reinforcing its visibility by broadcasting live one of the channel's significant programmes.

Operators of radio channels with advertising revenue generally agree that such actions are more feasible when the market positioning of the radio broadcaster's brand is accompanied by good audience figures. Nevertheless this kind of communication also appears as a widespread trend among advertisers looking to "get away from the conventional radio ad and move towards special endorsements and actions" (director-RAC1). From the advertiser's point of view, supporting certain activities by the broadcaster/channel can clearly differentiate their brand from the programme's usual ones. From the broadcaster's point of view, this formula is possible provided it doesn't contravene or conflict with the broadcaster's brand ideology, represented mainly by the content within the programming. On the one hand it's a question of "establishing joint strategies" and, on the other, encouraging the "adaptation of advertising models to the new environment" (director-Catalunya Ràdio).

4.2 Thinking online

In spite of the high costs entailed in developing the online environment, the sector has looked enthusiastically towards the internet. Firstly because it allows them to enhance their distribution of content and audience interaction. Secondly because it could be a good opportunity to stop young people from becoming disinterested in the medium (Gutiérrez *et al.* 2011). This segment of the population is so important that, for example, RNE has developed the platform "Radio 3 Extra [...] because it's the young channel" (director-RNE) which also has its own App as a strategy to attract young audiences. But apart from this particular feature, mobile applications are becoming windows for broadcasters to increase the exposure time and consumption of their content and thereby improve the brand's positioning in the mind of the consumer.

After going through the phase of websites being used as digital displays for a broadcaster's production, the supply of content has now undergone modifications of different kinds depending on the synergy between the content provided via conventional broadcasting and the products created for the internet, with a direct effect on the profitability of online radio content production. One example of this strategy is *MeteoMauri*[13], a programme set up in mid-December 2012 by *catradio.cat*[14] with sections focusing on meteorology which has ended up occupying a place on the conventional broadcaster. This process can also occur in the opposite direction, from conventional broadcasting to the internet, as "there are spaces within programmes which are now short but could be made much bigger once they're moved online" (assistant director-Catalunya Ràdio).

Profitable content is also interpreted as providing a sustainable supply, entailing the careful management of production resources. Adapting to the digital environment has forced broadcasters to resize their programming to some extent, with a slight increase in repeats during early morning programming. For Cadena SER, moreover, this has led to cuts in local programmes "that are not profitable or at least cost us to maintain. We lose a lot of money on some channels but put up with it because we know we need market penetration and they'll never stop being local[15]" (director-Cadena SER).

But irrespective of any readjustment in content to make this synergy successful, the idiosyncratic nature of production is essential. While some of the interviewees state that their teams personally make use of digital tools and have taken them on board, others confess that some producers and/or writers are reluctant to alter their professional routines. This could affect the synergy between the conventional broadcaster and social media. Although everyone accepts such social media are commercial in nature, ultimately used to disseminate radio content, they also realise they entail a different kind of audience communication.

Through social media "what we do is provide content precisely for all those people who've perhaps missed the programme that day" (director-programmes-Catalunya Ràdio). But while the broadcast programme is limited by a specific timetable, in the online environment both the programme and its profiles are present 24/7. That's why "we've really stressed that they're not only active during the programme" (head digital writer-Cadena SER). It also means they have to be aware of what the audience say, as "they tell you you're wrong, they propose new focuses or suggest questions in the case of an interview" (director-RAC1). These three factors are key to designing strategies focusing on the profiles of programmes on the main social media but some studies (Sellas 2013; Gutiérrez et al. 2014) reveal all three are still being implemented unevenly.

5. Future perspectives

The need to change the business model of Catalan and Spanish radio has already been acknowledged. For several years now all radio broadcasters, including our own, have been forced to devise supply and sales strategies aimed at integrating new platforms to disseminate their products. Our research highlights the fact that this process is quite difficult. During the years when the economic tide was favourable (rising advertising revenue, exponential development of ADSL and mobile telephones, increase in internet consumption, etc.), the radio broadcasting industry did take the opportunity to enter the scenario being created by new media.

To date, the radio industry's hegemonic business model has focused on exchanging listeners for advertising revenue, the so-called "media" model. The economic crisis, drop in consumption and reduction in investment by advertisers has considerably reduced radio's advertising revenue, raising doubts as to whether such a model can ensure the medium's survival. The substantial change in the radio industry's environment has had an almost paralysing effect on the short and medium-term strategies of radio broadcasters, both public and commercial. In this study we've seen how directors of the main organisations generally express a certain fear due to the uncertain scenario facing them, something which, in practice, tends to make them take a conservative stance towards the digital issue.

In practical terms, the new context of an online society is not only being tackled somewhat blindly but also with all kinds of precautions and the fact is that, given the crisis in advertising revenue, there's little room to manoeuvre. At the time of carrying out the fieldwork for this study, the predominant policy was to make the most of content from conventional channels which, with the necessary adaptation, were then distributed on the new platforms, basically internet portals and mobile devices, smartphones and tablets.

A second perception of the radio broadcasters interviewed has been that, in spite of the current difficulties, they are aware the aforementioned devices provide them with a huge chance to get rid of the strategic impasse encountered by most radio broadcasting groups regarding the digital world. For instance, universal reception is inherent in the concept of radio. If we also add the mobility and user-friendliness of new audio devices, primarily owned by the younger segments of the population, then the disinterest shown towards the medium detected among these listeners could be reversed.

Once a multi-platform supply strategy has been established, the radio broadcasting industry will need to achieve the financial returns required to maintain the production of content and its adaptation and distribution via different media. At present the only source of revenue considered by broadcasters is advertising. The path marked out by the economic crisis, not only in terms of lost revenue but also having to spread a single budget among all channels, must necessarily result in the development of new specific content that takes into consideration the growing fragmentation of media audiences and consumption, as well as the new possibilities offered by social media.

Notes

1. We define the business model as "how a company structures its activity and generates the necessary returns or income. The different formulations share, as a common denominator, an analysis of the sources of revenue and a description of the main strength of the business" (Cea, 2009, 943). But also "the way in which a company functions (…), strategic decisions, sometimes taken by a network of organisations, that explain the creation of value and the capture of value " (Casadesús-Massanell & Ricart, 2008, quoted in Guimerà & Bonet, 2008, 23-24).
2. For Catalunya Ràdio, see <http://www.ccma.cat/corporatiu/ca/missio-i-principis/> and <http://www.ccma.cat/llibredestil/guia-editorial/innovacio>.
   For RNE, see <http://www.rtve.es/contenidos/corporacion/MEMORIA_SP_Y_RSC_2013.pdf>
3. The GRISS is a consolidated research group of the Universitat Autònoma de Barcelona, set up in 1980, recognised by the Catalan government (Grup2014SGR1674) and belonging to the Department of Audiovisual Communication and Advertising.
4. Since 2012, comScore has designed a standard protocol to study digital audiences.
5. Interactivos RTVE is the department in charge of the digital environment at Corporació RTVE.
6. This strategy is widely documented by M. Gutiérrez in "Informes sobre la Ràdio a Catalunya", published by the Observatori de la Ràdio a Catalunya (Radio Observatory in Catalonia) since 2006.
7. <http://catradio.cat/icat/quisom/que-es-icat.html>.
8. <http://sonar.es/ca/nw/retransmisiones-en-directo-de-s%C3%B3nar-2014-a-trav%C3%A9s-de-medios-oficiales_134>. Radio 3 and Rai 2 as associated broadcasters transmit programmes or some concerts. In 2014 "icat.cat started the *Sónar Experience*, a space shared with the festival and Canal 33.
9. Until this edition broadcast by the BBC.
10. One consequence of this agreement is the broadcasting of advertising in English.
11. The radio recording of Don Quixote is possible thanks to financing from Fundació BBVA.
12. <http://www.congresosdelbienestar.es/> Nerja (Malaga) was the first municipality to take on this project (March 2014). In March 2015 it's Tudela (Navarra). <http://cadenaser.com/ser/2015/02/23/sociedad/1424694485_180880.html>.
13. <http://www.ccma.cat/catradio/meteo-mauri/>.
14. The Catalunya Ràdio site has now become part of the Corporació Catalana de Mitjans Audiovisuals website. (<http://www.ccma.cat/catradio/>).
15. In fact, the app allows the consumption of local news and programmes.

References

AIMC [Asociación para la Investigación de Medios de Comunicación]. *17º Navegantes en la red* [online]. Madrid: AIMC. 2015. <http://www.aimc.es/-Navegantes-en-la-Red-.html> [CConsulted: 10/04/2015].
— *Estudio General de Medios* [online]. Madrid: AIMC. 2014. <http://www.aimc.es/-Datos-EGM-Resumen-General-.html> [Consulted: 20/01/2015].
— *La radio: tradicional vs online* [online]. Madrid: AIMC. 2012. <http://www.aimc.es/-La-Radio-Tradicional-vs-Online,196-.html> [Consulted: 13/02/2013].

AIMC; Fundacc. *EGM Baròmetre Catalunya. Resum 3r. Acumulat 2014* [online]. Madrid, Barcelona: AIMC and Fundacc. 2014. <http://www.premsacomarcal.cat/documents/resum-3a-onada-2014-egm-barometre-catalunya.pdf> [Consulted: 20/02/2015].

Cea, N. "Modelo de negocio de la empresa periodística en Internet: El caso de Prisa". *Revista Latina de Comunicación Social*. 64 (2009), 938-950.

Collins, R. "Content online and the end of public media? The UK, a canary in the coal mine?". *Media, Culture & Society*. 13 (2011), 8, 1.202-1.219.

comScore. *From platforms to people, España 2014* [online]. Madrid: comScore. 2015. <http://www.comscore.com/esl/Insights/Presentations-and-Whitepapers/2014/From-Platforms-to-people-Sapin> [Consulted: 10/04/2015]
— *Spain Digital Future in Focus 2013. Hechos clave del mercado digital español* [online]. Madrid: comScore. 2013. <http//www.comscore.com/esl/Insights/Penetrations_and_Whitepapers/2013/2013_Spain_Digital_Future_in_Digital_Future_in_Focus> [Consulted: 02/06/2013]

CNMC [Comisión Nacional de los Mercados y la Competencia]. *Informe anual Telecomunicaciones 2013* [online]. Barcelona: CNMC. 2014. <http://www.cnmc.es/telecomunicacionesysaudiovisuales/informes/informesanuales.aspx> [Consulted: 30/03/2015].

Chan-Olmsted, S.; Ha, L. "Internet business models for broadcasters: How television stations perceive and Integrate the Internet". *Journal of Broadcasting and Electronic Media*. 47 (2003), 4, 597-617.

Franquet, R. *Radio digital en España: incertidumbres tecnológicas y amenazas al pluralismo* [online]. Laboratorio de Alternativas, working paper 132/2008. Madrid: Fundación Alternativas. 2008. <https://www..falternativas.org/content/download/11344/350921/file/Doc132.pdf>
[Consulted: 12/10/2011]

Guimerà, J. A.; Bonet, M. "El model de negoci en cadena a Catalunya: de l'èxit radiofònic al fracàs televisiu". *Quaderns del CAC*. 38, XV (2012), 1, 97-103.

Gutiérrez, M.; Martí, J. M.; Ferrer, I.; Monclús, B.; Ribes, X. "Los programas radiofónicos españoles de prime time en Facebook y Twitter: Sinergias entre la radio convencional y las redes sociales". *Revista Latina de Comunicación Social*, 69 (2014).

Gutiérrez, M.; Ribes, X.; Monclús, B. "La audiencia juvenil y el acceso a la radio musical de antena convencional a través de Internet". *Comunicación y Sociedad,* XXIV (2011), 2, 305-331.

IAB Spain. *Inversión Publicitaria en Medios Digitales. Resultados año 2013* [online]. Madrid: IAB Spain. 2014. <http://www.iabspain.net/wpcontent/uploads/downloads/2014/03/Informe-Inversi%C3%B3n-Publicidad-Total-A%C3%B1o-2013_Reducida.pdf> [Consulted: 03/03/ 2015]

Infoadex. *Estudio Infoadex de la inversión publicitaria en España 2013* [online]. Madrid: Infoadex. 2014. <http://www.infoadex.es/InfoAdex_Resumen_Est_Inv_2013.pdf>.
[Consulted: 20/01/2015]

Llorens, C. "El consum radiofònic: un creixement que no s'atura". In: Martí, J.M.; Monclús, B. (coords.). *Informe sobre la Ràdio a Catalunya, 2007-2011*. Bellaterra: Servei de Publicacions, Universitat Autònoma de Barcelona, 2014.
ISBN 9788449050947.

Macnamara, J. "Remodelling media: the urgent search for new media business models". *Media International Australia*. 137 (2010), 20-35.

Martí, J. M. "L'oferta radiofònica a Catalunya, entre la maduresa i la crisi". *Quaderns del CAC*, 18 (2004), 31-36.

Martí, J. M.; Gutiérrez, M.; Ribes, X.; Monclús, B.; Martínez, L. "La crisi del consum radiofònic juvenil a Catalunya". *Quaderns del CAC*. 34, XIII (2010), 1, 67-77.

Media Hotline. *Informe de la situació de la ràdio a Catalunya del període 2007-2013* [online]. Madrid: Media Hotline. 2014. <http://www.acradio.org/download.php?id=230&tipus=D&fitxer=situacio_radio_Catalunya_2013.pdf>
[Consulted: 20/02/2015].

Nguyen, A. "Facing 'the fabulous monster'. The traditional media's fear-driven innovation culture in the development of online news". *Journalism Studies*. 9 (2008), 1, 91-104.

Ofcom. *The Communications Market 2013* [online]. London: Ofcom. 2014. <http://stakeholders.ofcom.org.uk/market-data-research/market-data/communications-market-reports/cmr14/> [Consulted: 08/02/2015].
— *The future of Radio* [online]. London: Ofcom. 2007. <http://stakeholders.ofcom.org.uk/binaries/Consultedtions/futureradio07/statement/statement.pdf>
[Consulted: 02/05/ 2013]

Ortiz, M. A. (2012). "Radio y post-radio en España: una cohabitación necesaria y posible" [online]. *Área Abierta*. 32 (2012). <http://dx.doi.org/10.5209/rev_ARAB.2012.n32.39637> [Consulted:15/12/2012]

Pavlik, J. *Media in the Digital Age*. New York: Columbia University Press, 2008. ISBN 9780231142083.

Pfeiffer, M.; Zinnbauer, M. "Can Old media enhance New Media? How traditional advertising pays off an Online Social Network". *Journal of Advertising Research*. 50 (2010), 1, 42-49.

Rojo, P. A.; Hellín, P. A.; San Nicolás, C. "El modelo de negocio en Internet de la radio española de cobertura nacional". *Revista Científica de Información y Comunicación*. 5 (2008), 288-325.

Sellas, T. "Ràdio i xarxes socials: els magazins matinals a Twitter". *Quaderns del CAC*. 39, vol. XVI (2013), p. 23-33.

Zallo, R."Economic crises, digitalisation and techno-cultural change: elements for prospection". *Quaderns del CAC*. XXIII (2010), 1, 47-57.

Venzo, P. "Digital killed the radio star. The future of a medium". *Metro Magazine: Media & Education magazine*. 157 (2008), 116-119.

Winseck, D. "Financialization and the 'Crisis of the Media': The rise and fall of (some) media conglomerates in Canada". *Canadian Journal of Communication*. 35 (2010), 365-393.

Yarza, E. "La inversión publicitaria". In: Martí, J. M.; Monclús, B. (coords.). *Informe sobre la Ràdio a Catalunya 2010*. Bellaterra: Servei de Publicacions, Universitat Autònoma de Barcelona, 2011. ISBN 9788449026874.