Radio becoming r@dio: Convergence, interactivity and broadcasting trends in perspective

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Abstract:

Radio has always been part of our lives. It has also been a profitable business since the early days of broadcasting. Today, all sorts of digital devices have combined to create a 'self-media' environment that resituates radio, in the face of new challenges. This essay is based in a deeper understanding of radio broadcasting as a cultural industry and audience behavior to focus on groundbreaking approaches to radio in the context of cross-media, multi-platform and audience interaction with media contents.

Keywords: Radio, convergence, interactivity, audience

Introduction

Radio broadcasting is in a process of change. Broadcasters are looking for new perspectives to make the business profitable and face digital media competition. Radio research has reached a two way perspective, with researchers understanding radio both as sound broadcasting and other forms of media, as well as questioning radio as a social institution.

In this essay I focus on changes occurring in broadcasting by analysing radio station websites, platforms of broadcasting and streaming, to characterise the transformation of radio, in terms of distribution. By using desk research and key examples from Portuguese radio broadcasting industry, I present a new concept of streamed audio content, to understood radio as r@dio, presenting proposals that aim to situate radio broadcasting in a context of severe competition for people's attention among all available audio contents.

Digitalization and the internet are fundamentally changing media markets, particularly radio. Recently we have seen a huge increase of leisure time spent with entertainment (Zillmann and Vorderer, 2009). There are also new forms of entertainment. We no longer have just TV, radio, magazines or newspapers. Books, movies, newspapers,

radio podcasts, video games and, of course, web-based content are emerging and competing for audience attention.

Radio listeners have access to an increasing amount of content: news, information and entertainment in different platforms and formats, competing with radio. Consequently, a new audience emerges, non-traditional, non-passive but participative and independent. Tabernero (2009) in fact proclaims the Internet as a competitor to established media organizations, as an alternative source of information and entertainment and a means of access to new and incessantly renewing channels and platforms.

Along with traditional media companies, new players are approaching consumers as content producers and distributors. Changes in communicative processes within the media and new media ecology analysis are enriched by examples that display common features in interactivity and participation: convergence and cloud computing about radio. The new media environment challenges traditional radio broadcasters who are online to improve their traditional broadcasting, towards multimedia content and distribution. This essay explores the ways in which radio broadcasters are responding to these challenges and identifies opportunities and bottlenecks for radio broadcasters' online development.

Radio broadcasting industry

The emergence of media which cross multiple domains, their influence on political power structures and the manufacture of consent, along with other media effects in society, led to the adoption of professional structures and strategic management in radio to face a competitive market economy. The media help to contextualize our values, beliefs and sense of aesthetics, since our experience relies on media to get current news and facts. Media activity comprises an atypical sector, establishing a cultural production network that helps in framing reality by giving us a self-image of our society.

Media are also corporate structures with public and private funding. Corporate media used to be more diverse, but companies merged in worldwide processes of media consolidation. Currently, just a few companies own major entertainment outlets, including theme parks, movie studies, television networks and cable channels, radio stations and radio networks, integrating as well telecommunications, software industry, game industry, music industry, sales houses and outdoor advertising.

The corporate media business model is based on marketing of information and entertainment content, as well as selling audience attention through the insertion of advertising into programming structures. Radio broadcasting is part of this context, as a cultural industry that results from the interconnectedness of economy, industrial output structures, aesthetic production and social influence. Radio is part of a symbolic production system, therefore as other symbolic structures can be examined with the concept of 'cultural industries'.

Approaching cultural industries through the multiplicity of their various sectors and areas of activity, Hesmondhalgh (2002) presents a model which combines the different theoretical perspectives of political-economic communication, cultural studies and theory of

communication, to explain cultural industries' transformations over the last twenty years. In fact, if we consider that cultural industries are "the ones which originate in individual creativity, ability and talent, and which enable the creation of wealth and jobs through the production of intellectual property" (Creative Industries Mapping Document, 1998), I believe that radio can properly be understood as a cultural industry: on one hand, through the analysis of broadcasting economical and financial structure, corporate structure of production and distribution; on the other, from the standpoint of symbolic content and its contribution to communication, experience and reproduction of the system of social and cultural meanings (Cordeiro, 2010: 116).

According to Hesmondhalgh (2002), consumption culture is connected to radio content, reproducing cultural experiences and interactions between symbolic and cultural meanings framed upon industrial production. Radio business uses economies of scale to ensure market share and expansion: radio's communication may have above all a symbolic meaning, particularly where music is the main content of programming structure. This is a perspective reinforced by Kung-Shankleman (2000) who approaches radio as producing symbolic content, with value based on newness and constant renewal, clearly influenced by Flichy's (1991) concept of a flux economy and Miège's (2000) approach to consumer expectations.

The radio industry is currently striving to become a more web-based and multimedia business. This is currently framed by a set of three different, though interchangeable elements: coverage (spectrum distribution); branding and content, which relate each other to create the third; a business structure that, as Hesmondhalgh (2002) has argued, fits the cultural industries framework via broadcasters' professional complex system of production. Further, the intangibility of radio content places the radio broadcasting industry within the cultural industries system, which depends upon defining distinct audiences. For that, "music radio stations have branded themselves differently from each other to attract niche audiences" (Nyre, 2008: 102). Coverage influences branding and content. Branding depends upon content (radio format) and content is defined by coverage. In other words, coverage has to operate within a country's regulation system in respect to spectrum distribution and, beyond that, upon the broadcaster's interest in maintaining a proper transmission network operating in the coverage area (the whole country or a specific location). By ensuring comfort of listening, they are guaranteeing that content reaches people and that they maintain contact with their brand. Thus, comfort of listening is the baseline for a successful radio station. Today, although terrestrial radio broadcasting is still the most important distribution platform, figures show that online is no longer just a complement to FM. Rather, it is replacing it in some cases: immigrants and young people, most particularly.[1]

The branding of radio has been evolving in the last few years, in parallel to branding and marketing strategies applied to the wider media industry. Historically, market research and marketing strategies in radio were developed in an historical period that made radio change its programming strategies, due to the rise in television's popularity from the fifties

onwards. TV's popularization had several implications for radio programming and introduced audience segmentation, with smaller audience groups created to serve advertisers' needs for communication. In the sixties, the transistor and car-radio made radio listening individual and changed listening habits, expanding radio's influence among youth and drivers. Later on, radio stations' management professionalized, while the radio stations began to be integrated into groups of media, organized according to market research and SWOT analysis to define their strategic positioning in media markets.

In Portugal, most important radio groups have a management structure with departments for different business areas and teams for each radio station, concerning activities like programming, music, presenters, sales, marketing and multimedia. Radio stations' management is organized to establish a station's identity and branding, enabling a communication structure to relate with its targets and become associated with lifestyles. Today, they are approaching brand-community logics, as "radio stations can be understood as brands, since there are more important attributes, besides functional ones, associated with the radio station's name" (Mendes, 2000: 190). At the same time, Ragas and Bueno (2001) evidence the rise of cult brands. In this sense, the understanding of a radio station as a brand means that we are integrating radio listeners into groups, making them feel that they are part of a unique community.

Content in radio is shaped by this process. Branding becomes reliable when the product meets listener expectations. Therefore, broadcasters invest in good quality content, celebrities and well-known presenters, organized within radio formats, as a consequence of radio segmentation and branding, intending to establish a community of listeners around their radio brand.

Changing Media: Changing Radio?

Castells (2003: 17) has said that the Internet reaches supposedly around the whole world. That may have led broadcasters to approach the Internet in two different, though complementary, ways: using it as a process (creating intranets for content production and management, and as a working tool, for source of information and news gathering); and as a distribution platform. In this sense, streaming technology has become crucial for radio's online development, providing live audio transmissions. Streaming is the access technology making radio broadcasting available via digital devices (computers, mobile phones, tablets) and networks (spreading of radio content through the web using sharing tools). Radio today is available both in digital and analogue platforms that are combined, to fit with audience needs, uses and routines with media. Along with Bonet (2011), I would argue that radio broadcasters use diverse technological distribution platforms to successfully achieve their public service and profit goals.

Multimedia takes radio out of its traditional business and broadcasting model, updating a medium with a history of more than eighty years, and giving the listener a broad set of capabilities. The word derives from the Latin radiu (radius) or radio, which means telephony (communication by electronic air waves). Radio also refers to the air-waves

receiver. Broadcasting is the transmission of electronic media, corresponding to a human need to share, community and transmit information at a distance, now enlarged through the Internet.

Convergence results from dynamics in technology and synergies of media, computing and telecommunications, adding value to existing processes and creating new ones. These establish a digital culture in which every device and content is re-conceptualised as digital. The same happens to radio broadcasting. Let's focus on interactivity and participation; convergence and cloud computing, to approach radio broadcasting's most important transformations:

Interaction is understood to be the communication between user and system, nevertheless, social sciences and media studies approaches to interaction focus mainly on social, cultural and organizational issues that provide the context of interaction. I would argue that by interrelating these approaches we can build a model of interaction that fits perfectly the user perspective in radio broadcasting. Interaction involves the user and the system. It is a complex process that includes both questions and answers requiring that communicators respond to each other (Rafaelli, 1988) or, putting this in a social perspective, have conversations.

But also, computer interfaces have become ubiquitous and integrated into all the environments we live in. Computer interfaces are also a common way to access media, particularly, radio: "continuous access to devices that provide enhanced communication and information processing functionality will change the environment in which we live as the devices influence the way we communicate and interact socially" (Falk and Bjor, in Katz, 2003: 233). In fact, by extending radio to Internet, broadcasters have made radio dependent upon digital devices and interfaces, thus, influencing radio's communication and interaction with listeners.

There are different ways of looking into the communicative tasks involved here, and the reasons why the interface portrays an important role in interactive processes. As Finlay, Abowd and Beale (1993) explain, the purpose of an interactive system is to aid a user in accomplishing goals from some application domain. An interactive communication is characterized by three factors (Alba et al., 1997, in Stewart and Pavlou, 2002:380): it is multi-way, meaning that it involves two or more actors; it is immediate, as responses occur within seconds; and it is contingent in that the responses of one actor follow directly and logically from the action of another. By using digital devices and computer interfaces, interactive systems and frameworks applied to radio establish different types of interaction, changing its effectiveness, which depends mostly on two different factors: the design of the interface that allows the user to express himself; and the computer literacy of radio listener. Hence, another factor may also be included, concerning socio-cultural factors that go beyond broadcasters' intentions: the interface might also influence interaction between the user and his or her computer.

In media, the goal is to be able to give feedback, introduce ideas, comment or simply take part in the communication process, participating in media content and conversations.

Or, it may be to access the network, use its resources and the value those resources have. At a second level, interactivity can propel group integration and access specific forms of imagined communities, as happens in radio broadcasting with communities of listeners around radio stations, and in particular around communities of fans established on Facebook.[2] Although "likes" can't show much about interaction with radio stations, "page insights" (Facebook's system for measuring the effectiveness of a Page) can. In this sense, available insights on radio station pages show that Rádio Comercial usually reaches more than 58 thousand people; RFM has around 80 thousand people talking about the radio station's posts, representing high levels of interaction in these pages, through shares (post-sharing) and comments (commenting on posts).

If we consider the search for interactive systems from the early days of broadcasting, we should note that Bertolt Brecht in the 1930s (Cordeiro, 2010: 54) proposed the transformation of radio from a transmission and distribution to an interactive medium, organised as a transmitter and receiver that binds listeners to each other through their contributions. In radio, interactive systems and mediation run counter to the notion of face-to-face interaction, and thus can be seen to recontextualize social relations in public space.

Listeners' participation in radio is today also an online participation. It is characterized by written posts, such as email, blog comments, or online social networks posts; images (usually pictures); video and audio. Radio broadcasters are creating multimedia content.   These are multiplatform, establishing different narratives or a continuous narrative available in multiple forms, in most cases quite similar to those that characterize listener participation. Radio stations[3] commonly have live streaming, posts in online social networks or blogs, on-demand videos, and audio podcasts. In radio, interactivity has long been closely related to different forms of participation: for example listener panels, letters, contests or call-ins. These models can be actualized in a digital context which enlarges the scheme of participation to interactive systems of communication in which, through a navigation interface, the listener participates without interacting directly with others. On the other hand, personalization of radio station's websites, listener-driven content, and on-demand content are features that admit participation and user control, being considered interactive (Cordeiro, 2010: 89).

Listeners use their discursive capacity in a situation that is provided by the broadcaster, according to a predetermined thematic that obeys certain rules which are again defined by the radio station which invites such participation. But even without affecting this decision making and its implied power relations, this still reveals a form of civic participation (Cordeiro, 2003). Mediated participation is by far the most common format in media communication. It contributes to reconfiguring social relations and power, by weakening privacy and/or by encouraging new forms of isolation, but at the same time allowing us to establish social relations with people with whom we would never interact directly and unmediated.

Today, more than just picking up the telephone and calling the radio station, radio listeners find other ways to interact and place themselves among the community of

listeners in that "illusion of radio as a two-way medium" (Crisell, 1994: 189). McLuhan and Nevitt, in the 1970s, suggested that the electronic technology would help to change the consumer into a producer. Today, although one can still find passive consumption (in most cases related to media and recorded music, with people uninterested in taking the effort of customising, selecting and arranging the available sources of media), people are also contributing to major changes in consumer culture in an ever-increasing dynamic of interactions which enables each one of us to create experiences, collaborative intelligence and all sorts of synergies. In short, interaction encourages group integration and provides the illusion of imagined communities through the interfaces that allow listeners to participate in radio.

Convergence is allowing a change in linear media communications, by supporting the one-to-many traditional model of communication, but also establishing one-to-one, many-to-one or many-to-many communications, enabling conversations between users. Digitalisation pushed the coming together of telecommunications, computing and broadcasting, and is transforming radio, integrating it into IP-based convergent services. Beyond this, the concept refers to a new strategy related to information management, its production and distribution. Boczkowski and Ferris (2005:3) argue that digitalization eliminates the boundaries between press, television, radio and online technologies. They explain that these features, content and services offered previously by separate media will be, in the future, provided through a single artifact, a networked computer or device.

Convergence in radio refers to the network architecture that broadcasters have adopted to merge previously distinct media (so-called traditional broadcasting or terrestrial broadcasting) into common interfaces on digital devices. Cloud computing is currently a hype designation, not always used in its perfect sense, referring to media and users content made available online. Cloud computing aims to allow access to large amounts of data in a virtualised manner, by aggregating resources and offering a single system view (Rajkumar, Broberg and Goscinski, 2011). In other words, it might be a way to rethink radio, establishing the medium as a social sound platform. This would be a disruptive innovation, moving all radio stations onto the cloud, which would make them searchable and on-demand, available through an infrastructure of search and discovery. It also would make radio listeners' media digest available in one single page and their audio experience in one single platform. In the near future, radio could also be using an intelligent interface, available via different devices, combining analogue with online and/or digital broadcasting, linking to the everywhere, anywhere, anyhow contemporary media paradigm.

Cloud computing derives from infra-structure convergence and shared services. Objectively, its purpose is to contribute to easier manageability, faster processes, centralising services with data, software and devices, all available through an application programming interface (API). Cloud radio is not exactly the marketing approach associated with Spotify, perhaps the currently best-known internet music provider, which describes itself as a "cloud-based radio service". As Rajkumar, Broberg and Goscinski (2011) state, cloud computing describes a category of sophisticated on-demand computing services in

which a computing infrastructure for businesses and individuals can access applications on demand. Therefore, having radio contents available online doesn't in itself make it a cloud-based radio service.   Rather, we should think of online radio, resulting from content migration from FM to the radio station website or multimedia content, produced for the website.

Discussion about the conceptualisation of radio and these kind of music services is so far inconclusive (Hendy, 2000; Coyle, 2000; Berry, 2006) but it is my contention that music playlists, without human interaction, should not be confused with radio (Cordeiro, 2003; 2004; 2010; Prata, 2008; Medeiros, 2007; Meneses, 2012), no matter what Meditsch (2010), says, that terrestrial, internet or cable broadcasting are still radio broadcasting.   My argument complements his idea about broadcasting platforms with radio contents, with human presence and interaction established. To define radio, I follow the cultural paradigm of radio as Prata (2008) and Medeiros (2007) present it: live broadcasting and sound-verbal elements that must be simultaneously presented with other radio language elements.

Radio is today oriented to an audience that, although fragmented, assumes a global reach, but limited to those online. This is contributing to change distribution models, structures and messages, combining traditional features of radio with the multimedia nature of internet (Cordeiro, 2010: 253), creating a media that broadcasts real-time audio. Audio that can be accompanied by texts and images, even if these aren't necessary to understand the message being broadcast (Prata, 2008: 71).

As stated before, I believe that there is a new defining path for radio. From the combination of audio, plus text and video arises a new model (Cordeiro, 2004; also Prata, 2008) or, as Meneses (2012) points out, radio adjusted to the media environment, either through technology, new formats or new music forms. [4]

Radio research has reached a two-way position. On the one hand, radio research understands radio as sound broadcasting along with other forms of broadcasting, even if still with no established definitions, as Meneses states (2012). On the other hand, radio research is also approached from another perspective, that of radio's technologies (as opposed to more traditional approaches which see radio as "a social institution, or as a cultural creation with rules of its own and a specific sociotechnical mediation" (Meditsch, 2010:204). The study of the influence of technology on radio and on emerging broadcasting models follows Jenkins' (2006) approach to digital culture, and to associated changes in media distribution technologies.

Radio broadcasting has converged into something more than just an audio media with new features (web-only music channels, web-only video channels, blogs, polls and online comments). Online music playlist or web-based music services for instance, are a fine example of the way consumers are increasingly customising music platforms to better suit their individual needs. At the same time, music listeners are downloading individual tracks and assembling their own sequences of songs. [5]

Radio stations are in addition developing multimedia content, storing and sharing online (videos, audio archives and pictures), incorporating weblogs, photoblogs, podcasts,

videocasts, wikis (as examples of social media) into their websites with associated sharing platforms, such as Facebook or Twitter buttons. Some radio stations also have web-only thematic music channels, very similar to the playlists available on the Last FM music tab (www.rfm.pt or www.radiocomercial.clix.pt being the best Portuguese examples).[6]

RFM and Rádio Comercial[7] have a website with several multimedia resources. They have livecast (streaming their FM broadcasting); texts (news and entertainment); other forms of text - bios (the team and some radio shows); and on-demand videos (shows, specially produced videos, humor and hits). They also have an interface with content menu: the interface for the website, with text and images, links and interactivity features - online social networks (Facebook being the most used); blogs (for the team and some shows); images and video sharing (like Youtube and Flickr). On Facebook, we can today find presenters interacting with the audience and creating conversations (searching for interaction all the time). Besides radio (terrestrial radio) there are new forms of radio, with resources that allow participation and interaction with listeners, who are being today approached as consumers or users (Castells, 2003). These resources - blog posts and comments; pools; chat rooms; online social networks posts, shares and comments; audio and video - can be included in the radio station website, and are tools that foster opinion and participation. [8]

Like online music services, radio broadcasting could give more power to the listener and assign to radio station presenters the role that no iPod, Pandora or Last FM can have: the surprise, intimacy, information, the "being there" inner feeling that no audioscrobbler (the database system used by Last FM that tracks listening habits statistically) can still overcome. It may seem antiquated to associate the human voice with the current definition of radio; however, if we annihilate the speech, we are killing what led us to radio (Cordeiro, 2003). Radio is used to maintain or alter mood, it is emotionally evocative, reassuring and a part of domestic soundscapes (Tacchi, 2000:291). Traditionally radio is thought to be an immediate and evanescent medium (Cordeiro, 2004) which informs, educates and entertains. Essentially, trends may be discernible over short periods that defy any sense of permanence and are quickly eroded by time. For instance, references to young people as belonging to an 'iPod Generation' (Office of Communications, 2004) show that the use of the traditional radio receiver was declining among a particular demographic age group, while the same group's uptake of the iPod device launched in 2001 by Apple was enjoying considerable success. In fact, the radio listener itself has already helped us to define what radio must be: music accompanied by speech, improving the individual listening experience by providing further details or features online (Cordeiro, 2009). An iPod, for instance, may be one's best company until one may feel bored with all the gigabytes of music that he or she chose. There's almost no surprise in it, and most particularly, no one to engage with, as Ofcom's 2004 report also made evident; therefore, people can express a sort of iPod boredom, returning to terrestrial radio. Different digital platforms are available and radio is starting to present a convergent communication available on the computer, mobile phone, MP3 players or other digital devices. Nevertheless, uses of media by audiences are

somehow unreliable for predicting future media landscapes (Starkey 2009) which makes us think about new forms of radio, without alienating former radio contents, formats and broadcasting business.

Changing Audiences: The E-listener

Radio content is now produced, accessed online and made available through streaming, download and podcast. It is the combination of FM terrestrial broadcasting with online streaming that gives the listener the ability to choose between platforms - broadcast/FM or stream/web - and content formats: if listening to FM broadcast, sound is the only available content. If using the website, the sound is available (on stream, archived files or podcast); but it is also possible to read or watch a video.

In short, differences aren't in content alone, but in discursive forms and content formats, since visual discourse is different from audio. Hence, entertainment content in radio follows the same trajectory that Jenkins (2006) predicted, by combining different discourses in online platforms and integrating the participatory media culture, by reshaping media content through the influence of media consumers. In radio, these aren't yet, as Deuze (2007) foreseen, becoming producers or even co-producers included in the narrative experience, as he himself had earlier (2005) discussed, when analyzing levels of participation. Deuze further points out (2011) that immersion in media, information and communication technologies is increasingly defining our everyday life. Cardoso (2011) approaches communication in our society by defining a networked model, Deuze (2011) explores the perspective of a life lived within, rather than just with media, as these are remixing and interpenetrating different aspects and categories of our public and private life towards a media life (Deuze, 2007). Following Jenkins (2006) on his approach to convergence culture, and Manovich (2001) on humans and computers, Deuze's (2011) idea of blurring boundaries and co-creation across multiple media platforms is very interesting for us. Although terrestrial radio still hasn't approached radio communication in this sense, the idea of a life lived within media, or lived within radio might be understood when we think of the idea of blurring boundaries, co-creation and multiple media platforms, with radio shows diffused over several platforms, available via personal media, consumed either in a common sense of sharing or in an individual way; with excerpts of these sound media available in different networks and being used to help people make sense of their own lives.

Radio as an everyday companion, helping people to structure their routines and feeding their day-by-day information, news and entertainment is definitely a life lived within media. Evaluating peoples' relation with radio through online social networks such as Facebook might present us with a form (albeit still emergent) of life lived within media. Radio not only has that routinization function, it also enables people to take part in a virtual structure of communication and interaction: they keep listening to radio contents and get immersed in radio community taking part of activities, meetings, contents and conversations, a sense of belonging that only takes part in a virtual context.

In this sense, Papacharissi and Mendelson's (2011) logic of social network sites in a converged environment, that allows audience to serve both as consumers and producers of media, fits this approach to changing behaviors in media consumption. Radio, as other media, has become a regular feature or everyday life while we spend more time consuming media, in digital platforms.

Changes in media consumption have led us to consider a kind of listener who integrates both the audio listener (FM broadcasting and online streams) and also the user (interacting in social networks and exploring radio websites), engaging actively by producing and sharing content in the social context of web 2.0 (Slot and Frissen, 2007). Bakker and Sádaba (2008) adopted the idea of users, explaining that those online are actively seeking for the content that will correspond to their needs, as the Internet exceeds the idea of a container for the engagement it produces, and the fact that has become a "personal communication vehicle, and a social platform as well" (Bakker and Sádaba, 2008: 87). In this sense, radio no longer has just listeners, but online listeners and a new form of listeners, that I have already proposed we name e-listeners (Cordeiro, 2011b).

E-listeners are FM listeners and online listeners, depending on their preferred platform (or interaction). Understanding of radio listening patterns can be approached through the platform of listening: therefore, regardless of age (a variable used in audience ratings and often used in empirical audience research to analyse media preferences) I consider online listeners to be those who primarily use Internet-based technologies to listen to radio. They are in most cases relatively expert with technology, intensive web users, take part and are active members of social networks and keen into music and new forms of entertainment search (Cordeiro, 2009; Cordeiro, 2011).

The FM listener, which is also an online listener, is mostly a follower of technology, a convenience web user, listening to online radio for comfort and following, online, the radio station they listen to in FM; they also take part in social networks, although rarely updating their profile or mural; can be considered to be lazy searchers, as they state they don't have enough time or skills to explore the web for things that interest them (Cordeiro, 2009; Cordeiro, 2011).

Combining these two categories, we can give an account of the e-listener, regarding all their kinds of audio consumption, from radio to music in analogue and digital platforms. These represent trends in listening behavior, since people in different age ranks have similar listening and media consumption patterns (Cordeiro, 2009). The most important feature regarding the e-listener is the fact that they combine radio and other forms of audio media in multi-platforms to settle their own audio media digest.

Choices are made regarding the comfort of listening and available platforms at the same time, choosing between radio and other audio media web-based with the brand (FM radio stations), depending mostly on the content, and less on the available platform. That is, the e-listener relates with a brand and is more concerned with the content that each radio station or web-based audio service has to offer, searching for the most convenient platform of listening.

The e-listener is more than just a radio listener. He or she is a cross-media and multi-platform media consumer, displaying interactive practices while interacting with media (and particularly, radio) in all possible ways through the available platforms, and producing content (although still in terms defined by media).[9]

Elsewhere (2009), I have shown that radio listeners are making use of multimedia in radio station websites along with FM broadcasting. Changes aren't directly related to radio content but also to the available platforms, archive and comfort of listening. Although these listeners can be part of the cross-media audience, using radio and other media depending on their motivations and needs, they are also mostly cross-platform listeners, since radio keeps fulfilling their music needs, providing them with news and company while working or commuting.

Nevertheless, radio listeners are also changing their cross-media consumption, using web-based audio content of all sorts, available in different kinds of services, using their peers in social networks as sources of advice, endorsing each other's favourite content in a spontaneous viral strategy. Besides radio, these listeners also listen to audio content available, for instance, on podcasts (whether these are radio station-produced podcasts or user-generated podcasts), web-radios, online music playlists (web-based music services), music portals and music communities (Cordeiro, 2009).

Can We Talk About R@dio?

Interactivity, convergence and cloud computing may result in a new approach to radio broadcasting. If to the noun we have been adding prefixes (online radio, e-radio, web radio, cyber radio, Internet radio), we can also change the word itself, incorporating a symbol of the digital world: @, one of fundamental characters for the transmission of email messages (a critical tool for the creation of the worldwide computer network) and which became a standard in computer keyboards, not to mention as a main icon and tool of the information society.

Radio today is multimedia, multi-platform and convergent. It differs from the "FM era": it has sound and image, is (more) interactive, (more) participatory, shareable, asynchronous, repeatable, reproducible, searchable, customisable, discontinuous, hyper-textual, not linear, convergent, and on demand. All these, I believe, are strengthening radio's capacity to create feelings of community among listeners, feelings which can only increase as radio increasingly bets on the cloud paradigm.

Even if we may still have remnants of a mass audience, the convergent media landscape is in process of redefinition towards a demassified composition: individuals use increasing digital platforms and gadgets to communicate and/or entertain, seduced by their level of individualisation, multimedia features and interactivity.

R@dio may be a new concept, that is, radio as it is, approaching new media forms: by restoring traditional radio's best characteristics, r@dio turn out to be more interactive (using available online tools and prompting the exchange of information at an interpersonal level), and more participatory (allowing listeners to get involved in group and establish social

interactions within architectures of participation between users, servers and services). Then, by engaging listeners in formal interactions, involvement may result in participation as an effect of interaction.

Until broadcasters decide to fully integrate their approach to on-the-cloud radio, radio business will remain audio plus engagement: a radio station engages through content (which should be relevant), advice (people's likes, tweets and re-tweets, as well as comments and shares in social network sites) and trust, since broadcasters have to become an online brand that listeners trust the most and use to manage their online web surfing.

The tipping point that will make the change for media and, in particular, for radio broadcasting is the conversation that today, interactive tools and social networks allow to arise between radio listeners and radio stations: more than just producing and distributing web content, radio broadcasters must now relate to web users, as they will, through sharing tools, talks and opinions that they provide, spread the message of the radio station, pass on a particular content to make it viral, evangelising others in a virtual process of word-of-mouth.

As consumers, we carry out different functions in society and we are able to position ourselves at the same time as participant, producer and costumer, in an engaged community. Therefore, it is better to look at all of those that may be part of a radio station's target as being part of the equation: creating content to which your radio station can relate to, by the conversations on weblogs and social sites that influence people, based on their author's credibility and affinity.

Word-of-mouth has engaged people for decades, but Web 2. 0 features offer a variety of options, empowering the ability to produce any sort of content and sharing it in rich interactive platforms, social media or social networks. This enables also the spreading the word on brands, in a relationship explained by Burmann and Arnhold (2009: 74) as focusing on networks of users around brands and shared interests managing brands with user-generated content. They analyse the state of the art in the field of user-generated branding, presenting different perspectives that relate users who create and innovate (as in the prosumers approach), those who collaborate and share (as suggested by the Wikinomics conceptualisation), those who spread the word on brands (like viral marketing and of course, word-of-mouth) and users who join brand networks (in various sorts of online communities).

As a communication and interaction platform, the Internet integrates public and private spheres, social and interpersonal contexts, information or entertainment interactive contents, as an instrument of socio-cultural change. Radio broadcasting has improved radio listening by adding online interactive tools and multimedia features, and crossing social borders through presenters and interaction with people on social networks. Nevertheless, radio could combine broadcasting with narrowcasting, developing an intelligent radio broadcasting interface with content accessible through mobile devices. While still in the early stages of research and development, cognitive radio (that is, a form of transceiver which automatically detects and adjusts to newly available channels) is a highly promising

communications paradigm with the ability to effectively address the spectrum insufficiency problem.

Recent developments show that there is a promising device that will integrate Wi-Fi, Bluetooth or GSM for wireless electronic devices. This is a digital radio transmitter based on an innovative idea of radio-frequency signal transmitter using digital hardware. Current electronic devices, like mobile phones, tablets or laptops integrate several radio devices, each of them developed and introduced into the market for a specific wireless communication protocol like Wi-Fi, Bluetooth, GSM, EDGE or FM frequencies. In the near future, there will be devices that will be adaptable and integrated through a re-configurable protocol that Aveiro University is developing. [10] Cognitive radio will aggregate all radio features in every wireless electronic device, meaning that for broadcasters either broadcasting in FM, streaming contents or using GSM communications protocol, they will have their contents broadcast and made available in different protocols of radio communication, linking forms of radio broadcasting with audience behaviours and platforms of communication.

Even though there are enough applications for audio and radio listening through mobile phones, smart phones and tablets, there is still none that introduces a new radio broadcasting business model, or which redefines the content organisation and presentation, as well as the relation with the audience that could as well be the 'on-the-cloud radio', creating an intelligent radio interface for all digital devices.

In this increasingly connected world, this proposal of r@dio sets radio broadcasting in the context of a unique strategy for a multi-platform context to extend the radio station's brand and improve radio's influence on consumers' preferences and consumption.   It also widens our understanding of how people relate with media and devices to develop integrated advertising campaigns, and multi-platform programming strategies: "Broadcasting is extended to incorporate forms of webcasting; hyperlinks create added value for Internet newspapers; even an appliance such as the PC develops into a cross-media reception device" (Zerdick, et al. 2005: 23)

The multiplication of media distribution systems and resources implies new broadcasting strategies and a redefinition of content, adjusting it to mobile devices, for an in-home and out-of-home, live and time-shifted consumption. These allow new forms of audience engagement with media within and across all the platforms, which means that, for radio, audio devices will be combined with screens for online, mobile and emerging platforms.

By combining these different approaches, there will emerge a user interface for smart phones and tablets (as well as laptops), using cognitive radio communications: this may turn to be a universal interface that gathers radio programming and on-demand audio services, rather than broadcasting companies. This interface may combine these services with other multimedia features available through different transmitting frequencies (FM or wireless), using cognitive radio technology to settle an intelligent interface that recognises, through the user-patterns of utilisation, profile and geo-tagging, the best available

connection to the available radio programming and on-demand audio services, for smart-phones and other mobile wi-fi enabled devices. This, for sure, would change the face of radio, turning it into r@dio.

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Notes:

[1] The official radio ratings agency, RAJAR, reported that in the first quarter of 2012 33.8 per cent of 15-24 demographic surveyed stated that they had listened to the radio through a mobile phone (RAJAR 2012). This is complemented by the Ofcom report "The iPod Generation: Devices and Desires of the Next Generation of Radio Listeners", which presented evidence that use of the traditional radio receiver was declining among a particular demographic age group (Office of Communications, 2004), with the same happening in Portugal, as Netscope reports (Marktest, 2012).

[2] Further analysis could show evidence of this, by analysing number of followers on radio stations Facebook pages and their levels of interaction. For instance, a Portuguese radio station such as Rádio Comercial has more than 7 thousand Twitter followers. Rádio Comercial and RFM have more than 500 thousand and 400 thousand Facebook likes, respectively. 3FM have more than 124 thousand likes on Facebook and more than 74 thousand Twitter followers. 538 Radio, also from the Netherlands, has more than 74 thousand Twitter followers and more than 65 thousand likes on Facebook (July, 2012).

[3] Building upon RFM and Comercial's cases, using a grid of web content analysis (Herring, 2010), we can generate a descriptive website analysis which identifies and describes patterns in website content. This comprehends the website characterization in terms of multimedia and interactivity:

programming schedule and/or streaming; livecast (audio and/or video); on demand (podcast, MP3 files, video); other (blog/blogs, text on website - news, entertainment - social networks, and feeds).

[4] RFM and Rádio Comercial are already examples of this model, adapting to the new media environment, using new formats and new music forms in their websites and using mobile technologies to connect with audiences. New formats include animations, video and podcasts; new music forms include web-only music channels and a web TV (RFM Vi).

[5] This process is also being replicated with the creation of playlists through platforms such as Last FM: by using the acronym FM, the service is relating to earlier forms and still existing media (radio), contributing also to produce related meanings by using previous media forms (radio). Different tabs divide older from newer forms (radio and music), but link them, addressing the audience's former experience with radio and appealing to their spontaneous willing to self-organize their favourite tunes, and show others their profile and preferred radio stations (as for playlists of music within the Last FM website, for instance).

[6] RFM created already three web-only music channels: one developed upon a very popular radio show, Oceano Pacífico (a late-night show with slow melodious music), another, RFM Clubbing, from their dance/disco events formerly called RFM Clubbing and finally, RFM 80s, because RFM listeners are really into 80s music. On the other hand, Rádio Comercial has Cromo FM (from a enormously popular chronicle by a popular humourist); O Concerto Mais Pequeno do Mundo (the smallest gig in the world, which is really an event, a gig in a very small room, open only to the radio station listeners, by invitation), Nightstage (live music), Músicas para sonhar (best off all time music), Romance (ballads) and Tugas (Portuguese music only).

[7] My choice of radio stations is based on audience ratings in Portugal, these two radio stations being the most listened radio stations in the country over the last 10 years (RFM from 2000 to 2012; Rádio Comercial from 2012 ahead, was the third most listened radio station the years before), as Marktest reports.

[8] Both RFM and Rádio Comercial use all available resources to stimulate interaction, by deploying interactive tools such as commenting forms or, in Facebook pages, messages (but also comments, likes and shares). E-mail is today one most used forms of feedback, with members of the team advertising their email addresses on radio station webpages, but also in programme email and producers' email.

[9] Despite the fact that cross-media consumption research is often connected with citizenship and democracy (as in Hasebrink and Popp, 2006; Couldry, Livingstone and Markhan, 2007; Hartmann, 2009; and Schrøder, 2011), my approach focuses more on entertainment media, concerning the possibility of individualizing one's media digest, pertaining to audio consumption, that is, radio, music and all other audio forms available in digital platforms, tracing the path of radio towards a self-media.

[10] See Cruz, 2012.