Radio, mobility and ubiquity: analysis of Abert's mobile digital inclusion project[1]

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Abstract

Mobile phones have become the main device for consuming radio content, broadening the traditional forms of mobility once restricted to transistor radios and automobiles. In an effort to have small and medium-sized radio stations incorporate the use of digital mobile phones, the *Associação Brasileira de Emissoras de Rádio e TV* has created a project called *Mobilize-se*. This project provides a free radio integration app; a radio app exclusive to smartphones; and a social network page. There are about 700 radio stations currently participating in this project. The goal of this quantitative/ qualitative study was to understand how these radio stations have benefitted from the advantages of digital inclusion (FLICK, 2009; CODINA et al, 2011) by using data triangulation (MINAYO; ASSIS; SOUZA, 2005) to assess the impact that digital inclusion has had on them. The results indicate that broadcasters have made this inclusion without too much forethought, and are not fully caught up with marketing strategies.

Keywords: Radio. Ubiquity. Digital mobility. Mobile applications. Audience.

Introduction

The expansion of Internet platforms and mobile telephones has introduced new forms of producing, distributing and consuming content to traditional media. More precisely, it has allowed radio to offer hypertextual and interactive audio content, thereby providing a variety of experiences to the public. Major radio broadcasting websites throughout the world are much more than just players; they have become portals with news on artists, music clips, reportages, information on shows, and have adopted multimedia, hypermedia

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and transmedia marketing strategies. Mobile phones are becoming the audience's main source for consuming content and interacting. Since they are media convergence tools, mobile phones extend the mobility of traditional radio and offer what Castells (2009, p.107 – Our translation) calls "perpetual connectivity", which basically means that messages and information can be captured from anywhere and disseminated in real time, forming networks of instant communication on a global scale.

Broadcasters are going online in Brazil, but at different rates. A survey conducted by the *Associação Brasileira de Emissoras de Rádio e TV* (Brazilian Radio and TV Broadcasters Association – Abert) in 2012 showed that more than 80% of Brazilian broadcasters had websites transmitting audio in real time (ABERT, 2012). Another survey from the following year revealed that only a little more than one thousand radio stations (20%) had mobile phone applications available for download; the cost of the technology was cited as the major reason for such a low number. Abert released its Mobilize-se (Mobile yourself) project in March 2015 with the ultimate goal of getting radio stations from all over Brazil to go online and be accessible through mobile phones. This project was laid out in three stages: a) Developing a free application for smartphones that integrates Brazilian radio stations and provides access to them; b) An exclusive application for Android and Apple smartphones that was distributed free of charge, for the first six months, to 500 broadcasters affiliated with Abert. After the free six-month period, the app could be purchased at a yearly price of one minimum wage; c) A social network on the Internet called Mobilize-se Play was created for the audience to follow and like their preferred radio stations. In addition to these three stages, in November 2016, Abert released one hundred free streaming spaces for broadcasters who were going online for the first time. This allowed radio stations to broadcast their signal across the Internet.

Thanks to the Mobilize-se project, currently 2.300 of the 5.130 AM and FM radio stations in the country are in the integration app. Around 700 broadcasters are using the exclusive application and have already reached more than 20 million users in just two years (FARFAN, 2017a).

The project is a first for including digital mobile directed at small and medium-sized broadcasters. On average, around 60% of radio broadcasters make less than R$60.000 a month (ABERT, 2012) and experience problems managing the cost of digital inclusion over time. One exclusive and personalized application cost around R$3.000, excluding monthly maintenance fees.

Once radio merged with technology convergence it gave broadcasters in developed countries a new way to reach listeners, to expand their reach and prioritize individualized consumption. It also brought on the challenge of reinventing the way business is done and coming up with strategies to guarantee longevity in the face of the eventual obsolescence of radio waves and transistors (RIBES et al, 2017, p.30). In Brazil, public funding for

commercial broadcasters has historically fallen between 3 and 5%. Since the economic crisis began in 2011, public investments have been reduced even more. For example, in 2015 radio received only 3,6% public funding and now faces fierce competition from emerging digital forms which have received a funding of 8%. Television records the highest percentage with 62% (KANTAR IBOPE MEDIA, 2016).

Might Brazilian broadcasters benefit from the advantages of digital inclusion set forth by the Mobilize-se project to increase their audience base, develop new audio products for their applications and ultimately increase their revenue? This question was the foundation of the quantitative/qualitative research (FLICK, 2009; CODINA et al, 2011) carried out in 2016 for the purpose of evaluating the impact felt by broadcasters participating in the project. Aspects such as renewing/expanding audiences, revenue, programming and content management were all looked at. The level of satisfaction expressed by radio managers with the mobile phone application and integration provided by Abert was also analyzed. The study provided some insight into the impasses, limits and possibilities of this insertion as it pertains to Brazilian radio.

Radio, mobility and ubiquity

The study shares McLuhan's view (2005) that "the effects of technology do not adhere to levels of opinion or concepts: they are manifested in relationships of the senses and structures of perception, on a steady pace with no resistance" (p.34 – Our translation). Portable transistor devices, wireless or not, have given radio its essential characteristic: mobility. The 1960s saw radio audiences change from collective to individual. More than just having the freedom to listen anywhere you go, radio gave society the dimension of immediacy by using portable devices for transmitting events. This technology gave radio a new communicational environment in the electronic age by immersing its audience in sound and touch, in a simultaneous and "tribalized" world much different from the linear one built by literate culture. Putting in other words, it established an intimate connection with oral culture by profoundly involving and affecting people, offering them a world of communication that is not expressed between writers and speakers (McLUHAN, 2005).

When McLuhan (2005) published his ideas, was not yet known that just a few decades later the world would go through such a great change in terms of how it interacts with new technology. The digital mobile environment gave radio from the electronic age a new form of mobility which, as Lemos said (2009), is the nature of virtual information, network mobile media expand the possibilities of consumption, production and distribution of information. It is mobility expanded – the physical combined with the informational – which enhances the original feeling of closeness and localism offered by radio.

Smartphones are hybrid, convergent and ubiquitous devices that bring together a number of media. And it is everywhere. It has the ability to place people in a present/

absent state, to constantly monitor them and to have them in frequent contact with one another through social networks and applications. Connected to digital networks and electronic data banks and used as geolocation devices, location sensors and tracking user movement, mobile phones are a dynamic relation of "contextualized informational and communicational exchanges" (SANTAELLA, 2008, p.35 – Our translation) that creates "convergence points, territories of information which redefine both physical places and flow spaces" (LEMOS, 2009, p.32 – Our translation). This means that Internet access and permanent limitless connectivity in terms of space and time strengthen the flow between time and space in daily life (SOUSA; MORAIS; PRIOR, 2015).

According to Castells et al (2007, p.377), mobile communication develops and disseminates social network platform technology, creating a "society of mobile communication". Castells et al (2007) explain that wireless communication technology disseminates networks of social organization and social practice everywhere, in all contexts.

Here radio has a nomadic, convergent and ubiquitous platform which alters the traditional form of mobility because it provides informational and communicational exchanges that audiences understand. It collaborates towards increasing and individualizing consumption and, as a consequence, narrows the gap between the medium and the audience.

Included here is propagation in technological convergence (JENKINS; FORD; GREEN, 2014) pertaining to the flow of ideas, the wide range of experiences, free participation, the ease of sharing content, the vast number of temporary and localized networks, the authentically popular intermediators that defend and indoctrinate, and to collective collaboration. These practices expand the process of communication, making it more participatory, democratic and strategic, capable of strengthening active citizen participation. For radio, this propagation means a significant transformation: aggregating the radio waves model to network circulation, in which the public's active sharing and disseminating of content is paramount towards increasing audiences and giving broadcasters more of an online presence.

There is no doubt that mobile phones, due to their speed, size and serviceability, have become the main source for consuming content and for connectivity, as well as dissemination. They are an integral part of daily life with a wide range of effects. Their use has been constantly expanding, originally being used for calling in emergencies to complete domination of daily life, all the while evolving from information communication to significant communications.

More than half the population of Brazil has access to the Internet, and 93% of the population has a mobile phone. The first semester of 2017 registered 242,8 million mobile phones, that equates to 117,20 mobile phones for every 100 people, according to data from Anatel (TELECO, 2017). The *TIC Domicílios* (ICT Domiciles) study in 2015 carried out by the *Comitê Gestor da Internet no Brasil* (Internet Managing Committee in Brazil – CGI.

br) shows that 58% of the population accesses the Internet[2]. The main device used for this access is the mobile phone. 89% of users use smartphones for Internet access and 65% use computers (desktop, laptop or tablet). A little more than one third (35%) only use mobile phones for internet access. The prevailing usage trend in society economical classes is: class C (44%), class DE (65%) and rural areas (56%), including the North (55%) and Northeast (43%) regions of the country. Even though the data is important, access inequality still exists. While practically all of class A is connected online, only 16% of homes in classes DE have access to the Internet; that includes mobile phones and/or landlines. This means that approximately 30 million homes from this lower class are disconnected from the Internet. The major reason given in this study (60% of respondents) for not having internet at home is the cost of the service.

With the goal of increasing radio access via mobile phones for classes CDE, Abert introduced a campaign to encourage the audience to buy phone models that come with an FM chip. Most manufactured devices have built-in FM radio receivers for tuning in to radio stations. However, many users are not familiar with how to use these receivers, or cannot use them because the radio chip was deactivated by the manufacturer, as is the case with Apple's iPhone. An Abert study from 2016 revealed that all mobile phones with a retail value up to R$300 have the FM radio option included. 76% of smartphones priced above R$300 come with an FM receiver (FARFAN, 2017b). At the moment, most radio listeners (58% of Brazilians) use conventional in-home or automobile receivers while 15% use mobile phones (KANTAR IBOPE MEDIA, 2016).

The radio is still a staple of everyday listeners' lives[3]. The difference is it no longer transmits on just one specific device. Being on a mobile network means it is always available through many cloud radio platforms (CARDOSO; VIEIRA; MENDONÇA, 2010), allowing the listener to tune in from anywhere. One advantage mobile phones have is that they are a window of opportunity for advertising, distributing and commercializing media products. It is a space where new listeners can be found, consequently increasing radio consumption levels. From a marketing perspective, it contributes toward making this almost one hundred-year medium visible at a time where mass content is available across many platforms.

Study methodology

This was a quantitative/qualitative study carried out between June and September 2016 (FLICK, 2009) in order to evaluate the effects on radio of it being included in the

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2   For the purpose of this study individual face-to-face interviews were conducted with people in 23.465 homes across the whole country between November 2015 and June 2016.
3   Kantar IBOPE Media 2016 study revealed that 89% of people from major Brazilian metropolitan areas spend parts of their day listening to the radio. This percentage represents 52 million Brazilians, that is more people than the entire population of Spain.

digital mobile world in terms of maintaining and increasing its audience base, revenue, programming and content management. A trio of methods (MINAYO; ASSIS; SOUZA, 2005) was used to obtain important elements towards understanding the impasses, limits and possibilities of radio in the digital mobile world in Brazil.

The focus with the quantitative approach was being able to measure the intensity and quantity needed for a representative sample. In order to do this an online[4] questionnaire with 30 open and closed questions was sent to all 731 radio broadcasters participating in the Mobilize-se project. The researchers sent an email to each one of the broadcasters with a link to the research instrument.

All participants had an equal probability of being included in the survey, representing a proportion of the broadcasters enrolled per state. The goal was to gather spontaneous answers that could be used for a sample of statistical probabilities with a 90% confidence margin for the results (a 10% margin for error). In the questionnaire the broadcaster evaluates the radio integration and the exclusive application by analyzing factors such as design, accessibility, search engine and resources for interaction. Another set of questions dealt with broadcaster revenue after adopting this technology, as well as relationship with audience and content produced for the mobile platform.

As for the qualitative approach, the content analysis of five open questions covering the online questionnaire was performed in order to understand how this action affects broadcasters' daily activities. Another qualitative tool used was evaluating the exclusive application through a category-type model based on Codina et al (2011). Created to analyze journalism sites, and already applied to a range of studies, the Codina et al (2011) tool proved to be very useful towards obtaining an overall quality comparison for a set of cybermedia according to a series of categories and standard indicators. Lima (2017) was the first to adapt this tool to analyze applications of public interest. Lima's work (2017) led to the tool being adapted for radio applications. The original model from Codina et al (2011) had five categories of analysis: a) accessibility and recuperation; b) ergonomics (convenience and ease of use); c) brightness; d) usability; and e) positioning. Three more categories were introduced to the model for the purpose of this research: a) interactivity; b) geolocalization; and c) advertising[5]. In order to perform an in-depth analysis of the application a Brazilian

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4   The online platform SurveyMonkey was used for this study. It was developed by an internationally renowned company that provides online solutions for academic institutions.

5   Each category had specific analysis indicators for the app based on Lima's (2017) adaptation of the tool: a) Navigation and recuperation: a short summary providing information, sequential content structure, abidance of a part of the app in all its sections, a content tiering system, menus, links to sections, written tags, search by word, and advanced search; b) Ergonomics: accessible frequently used actions, running the same actions in different ways, contrast between text and background, style and size of font, images and sound additionally to the text; c) Brightness: links to external sources, the types of links, updates and identification; d) Usability: better use of screen space, consistent and standard interface, information access, features, error prevention, simple data entry and a mechanism for help and documents; e) Positioning: checks if head element of the web has basic metadata tags and if there is a metadata system; f) Interactivity: following content, selecting menu options, users write and send messages, use chat, tools for sharing on social networks and text messages; g) Geolocalization: active geolocator; h) Advertising: a space in the app for advertisements.

state was randomly chosen (Minas Gerais) and three broadcasters were selected from it: Band FM Radio from Pouso Alegre, 98 FM Radio from Montes Claros and CBN Radio from Juiz de Fora.

Analysis of the digital mobile environment

The Abert integrator, created in 2015, allows to listen to radio stations in Brazil live, but an Internet connection is necessary. This application allows you to choose which station you prefer using a search system comprised of name, genre, tuning, city, state or region. Each radio station has its own screen where broadcasters can download the exclusive app. The following image displays a few of the interfaces on the integrator application.

Figure 1 – Abert radio application interfaces
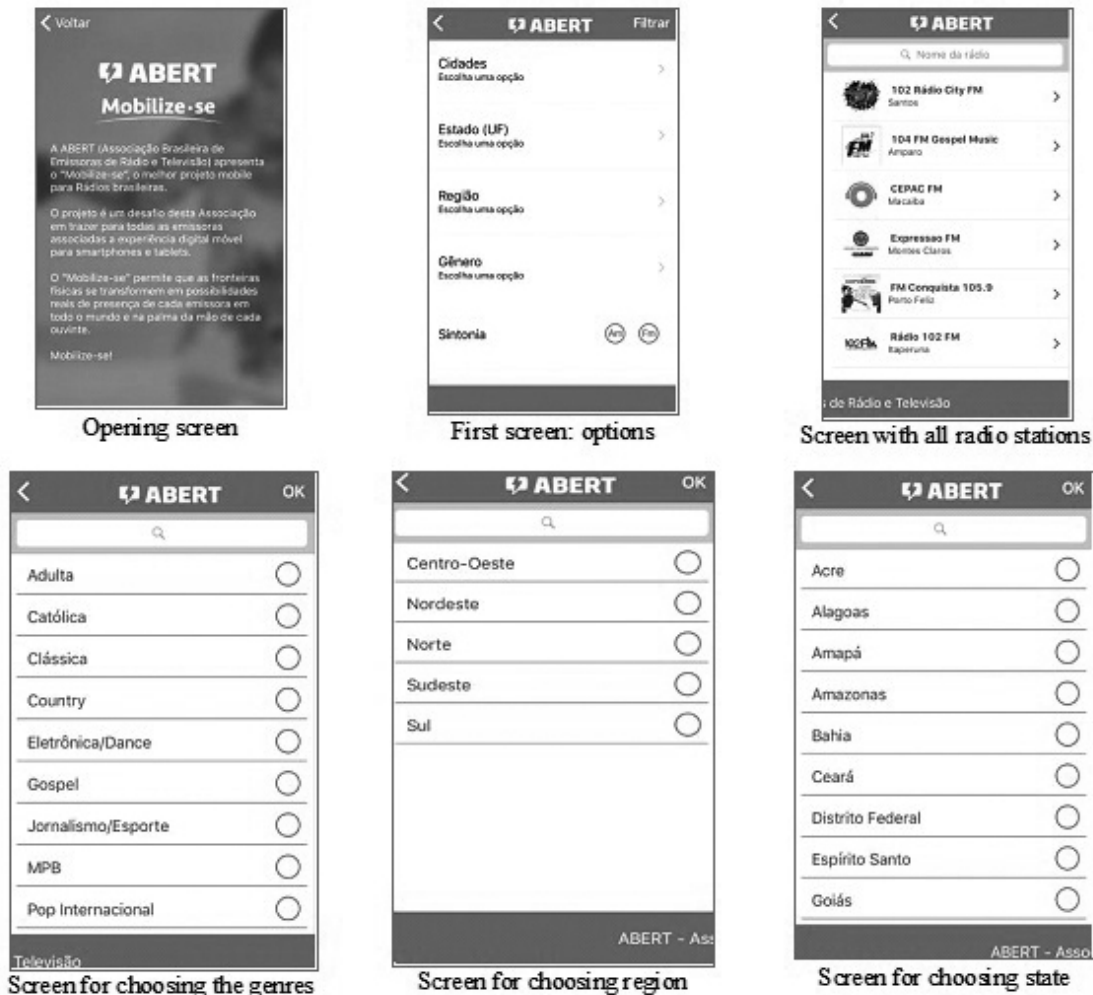
Source: Abert radio integrator (2016).

The exclusive radio application has devices for listening to live broadcasts, interacting with the studio by chat, WhatsApp and text messages as well as programming information and access to social networks. The following image has a few applications' opening screens used by some broadcasters.

Figure 2 – Abert exclusive application interface for radios

Radio Band FM, Pouso Alegre   Radio 98 FM, Montes Claros   Radio CBN, Juiz de fora

Source: Abert radio exclusive applications (2016).

Once the evaluation model from Codina et al (2011) had been applied, the main features of the broadcasters' application menu were checked for their abilities to keep track of content structure and provide direct access to any important section without needing to go back to a previous screen to get there. The content appears to be hierarchized according to what is important on the first page. The lack of an advanced search system makes navigation and information recovery a little clunky. However, the integrator uses a search by word system for accessing information.

The radio applications studied for this paper have a user-friendly menu with a list of contents and easy access to any of the app's pages in a short number of clicks. This ease of use is not found in the radio integrator. Also, these radio applications all have one thing in common: all their sections have one element that is constant from one section to another; something that cannot be said for the integrator.

In terms of ergonomics and brightness, the exclusive applications are convenient and easy to use. The most often used actions are all accessible. There is a good contrast between text and background; the fonts themselves and their size are good for reading and the images and audio add to the texts. Radio applications allow one to perform the same actions in a number of different ways, however, this cannot be done in the integrator due to its linear navigation system.

The links to external sources on radio applications are easy to find and are properly identified. There were no broken or obsolete links found in the radio apps analyzed for this paper.

As far as usability, the exclusive applications make good use of screen space; they are consistent and have interface standards, suitable for the component and its functionality, making it easy to use. In terms of interactivity, users can write and send messages to broadcasters, chat in real time with a radio announcer and share content across social networks and send text messages. These functions are not available on the integrator.

We also noted that not all broadcasters use the application to inform about their editorial politics and programming. This is a lost opportunity for maintaining an audience. In addition to that, only radio applications use a geolocation device; the integrator does not have one. Another negative factor is the lack of space for sponsors' advertising. This makes the integrator less appealing to broadcasters, thereby generating less interest in creating marketing strategies to integrate it into traditional radio advertising.

Evaluating the broadcasters

66 radio broadcasters participated in this study via questionnaire. This sample allowed for a 9% reply rate and a 90% reliability in the results. 48% of participants represent AM radio and 51%, FM. The large percentage of AM radios is an indication that their managers are preparing themselves to move to FM frequency and see mobile technology as a way out of the stagnation that has dominated the sector over the last decade. One can say that AM broadcasters want to increase their audience as they make the move to the digital mobile environment.

This study included 15 states from Brazil. Most participants came from the states of Minas Gerais and Paraná. Most of the respondents live in the countryside of Brazil, meaning it is most likely small and medium-sized broadcasters that have greater difficulties keeping up with technology. Most of the broadcasters were established in the 1990s. Almost all respondents (95%) have a website on the Internet. This shows that they are aware of the need to have a presence online and on mobile devices.

The vast majority of broadcasters surveyed had been a part of the Mobilize-se project for six months and, theoretically, were able to assess audience numbers and revenue. Almost 90% of them were using the radio integrator, those who were not stated they were unaware of the platform or they confounded the integration with the radio application.

Even though the category analysis based on Codina et al (2011) shows that the integrator has some shortcomings, a third of the respondents gave it a rating of 10 for its navigation, design, broadcaster search system, interactive resources and its attractiveness. Most broadcasters rating the integrator between 5 and 8 were satisfied with it. This is evident in the question about level of satisfaction with the platform: 49% of respondents stated they were satisfied while only 28% reported being unsatisfied.

The study identified that two thirds of radio broadcasters use exclusively the Abert application to reach mobile phones. Some reasons broadcasters gave for not using Abert's tool (23%) were that they were already using another application, or they were using it before but stopped when the app began charging a yearly fee equivalent to one-month minimum wage, and one of the respondents complained that the app was too slow. According to the radio broadcasters' feedback, the mobile tool has a good sound quality, design and navigation menu, but they find the integration with social networks a little weak. Despite the criticism, 73% stated that the application met their expectations. Less than 10% said it surpassed expectations and 15% reported it did not meet expectations. The respondents provided many suggestions such as improving the platform's connectivity to social networks; having a more modern, attractive design; an improved interface; more interactivity, resources and ease of use; the possibility of including local news; opening and playing broadcasts faster, and having space for advertising.

Some of the reasons behind broadcasters adopting the Mobilize-se project is the search for new ways to interact with the public (the main reason), followed by including themselves in the digital environment and the expectations of increasing their audience.

Table 1 – Reasons to adopt the Mobilize-se project

Need to have radio on digital mobile environment	72.22%
Search for new ways to interact with public	72.22%
Increase audience	57.41%
Attract new public, especially young people	48.15%
Low cost for implementation	40.74%
Increase revenue	18.52%
Ability to renew content and format programming	14.81%
Curiosity	9.26%

Source: Research data (2016).

The research identified that 38% of respondents would not be able to afford their own application; 34% might have the resources to develop their own app, and 26% would definitely have the resources to invest in their own app.

Most respondents reported being frustrated with the financial returns from the Mobilize-se application: 51% reported no increased revenue; 26% reported an increase of 10% in advertising; and less than 5% reported a revenue increase of 20%. These results show a certain difficulty in understanding that the digital mobile environment is important for generating new business. It is clear that broadcasters do not have marketing strategies for including traditional radio on mobile phones. Added to this is the lack of space for

advertising on the Abert application. The broadcasters' difficulty in trying to monetize from their presence on the Internet has already been reported in the study *Perfil do Rádio 2012 da Abert* (Abert Radio Profile 2012). Only 24.6% generated revenue using the broadcaster website as an advertising platform (ABERT, 2012).

In terms of broadcaster audience after enrolling in the project, 53% of respondents reported an increase in the number of listeners, 21% did not report any change. It is worth noting that one fourth of respondents could not answer this question, maybe because they did not have any tools for obtaining audience numbers. There was an increase between 10 and 30% among those who reported an increase in audience numbers. The respondents claimed these increases were measured by the number of downloads made on the application, comments on social networks, messages from the audience, the bulk of public participating, the streaming control panel and using the application itself to measure the audience.

Another evaluated aspect was the interaction between traditional programming and the programming on mobile phones. Most broadcasters (75%) did not make any changes to their programming when transferring it to a digital environment. This leads us to believe that most still think of the app as a support for transmitting their regular programming; they do not see it as a new platform offering convergent content. The 11% that made changes to their programming by including new sounds plastics, and advertising their mobile phone platform and its forms of interactivity. Only one fourth of radio broadcasters managed the application on a daily basis; 38% said they managed it sporadically, usually by updating programming data. Around one third managed it between one and six times a week. Managing is performed by radio broadcaster employees (76%).

Lastly, most respondents said they were satisfied with the increase in audience and new listeners. However, there was a high degree of dissatisfaction connected to the difficulty in boosting revenue. Broadcasters will need to change their stance in order to have improved results in this area, perhaps by creating new marketing strategies to coincide with the online visibility.

Table 2 – Level of broadcasters' satisfaction with the Mobilize-se project

|	Very satisfied	Satisfied	Indifferent	Dissatisfied
Maintaining audience level	12.00%	54.00%	30.00%	4.00%
Increasing audience level	11.54%	50.00%	32.69%	5.77%
Increase of revenue	2.3%	27.66%	48.94%	21.28%

Source: Research data (2016).

Final remarks

In a world of quickly evolving digital mobile platforms, Abert has made changes to its radio integrator application in an effort to overcome drawbacks reported by radio broadcasters in this study. The new version, launched in February 2017, introduces many tools to meet the suggested demands such as a space to evaluate the radio, support for more proximity, customization, audience statistics, sleep function, track record and Abert's news. Another added feature is the component for mobile advertising as well as new interactions between listener and broadcaster like shortcuts to the radio's Facebook, Twitter, Instagram and WhatsApp pages.

Abert was a bit concerned about the difficulties that radio broadcasters expressed with generating business through the applications, so it created an ebook[6] with step-by-step instructions on how to set up prize draws, programming and promotions that generate extra revenue. Abert also has entered in a partnership with the news website Portal G1. Using the *MobiAbert* integrator, listeners can access journalistic content as well as other material of particular interest to the radio broadcasting sector.

These changes have given listeners options for customizing their app like creating favorite lists, following what friends are listening to and even choosing the color of the app screen. Here are a few examples of the new interface graphics.
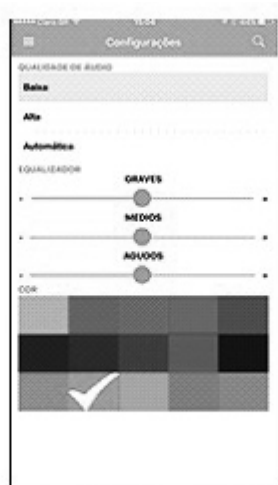
Figure 3 – *MobiAbert* radio interface

Application opening screen   Menu   List of radio stations
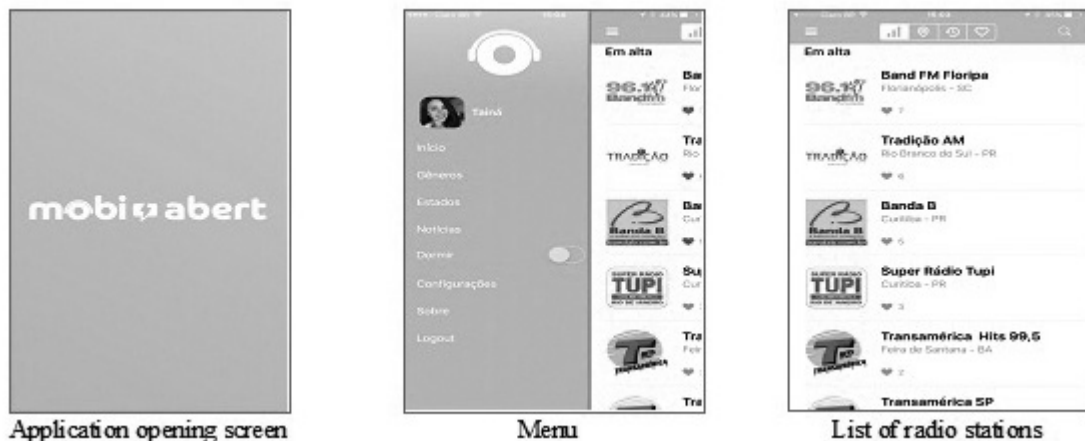
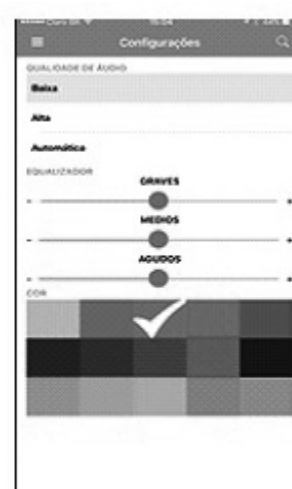6   Ebook available at: <http://www.accessweb.com.br/wp-content/uploads/EBOOK-TELA-SPLASH.pdf>. Accessed on: May 29, 2017.

News screen

Colour configuration screen

Colour configuration screen

Source: MobiAbert (2017).

Mobile phone applications are one of the latest actors present in communication media. For this reason, they still are not quite developed and their potential has not yet been fully discovered. They will most likely always be in a constant state of change until they adjust to the social dynamic. In general, many aspects are evaluated when adopting a new technology such as its advantages over competing technologies, its compatibility with current standards, whether it is user-friendly, reliable, and lastly, whether the people who use it are giving it positive reviews. Given all this, the success of a new technology depends on its ability to adjust to people's lives. It needs to be comfortable and easy to use, it needs to be familiar to users and also have the capacity to improve upon itself. In the case of radio, the applications have expanded the possibilities of mobile listening once restricted to portable radios.

Trends in technological advances tend to happen at high speed, driven by the market, developers and companies. However, the radio broadcasting sector in Brazil faces some difficulties adapting to new advances, as the research data here shows. In terms of the technical side of producing content, there are managers in radio who had adapted to new digital production equipment back in the 1990s (BIANCO; ESCH, 2010). However, nowadays they are experiencing difficulties in assimilating the applications to a new frontier of communication and integrating them with their marketing strategies and audience relationship.

This study shows that broadcasters integrating the use of mobile phones was not well thought out; there was not much information about what to expect from mobile phones and they did not have any real marketing strategies in place. This is due to the type of

traditional and conservative management in radio that mainly focuses on the power of voice that radio personalities provide behind the microphone. There is no doubt that they are the heart of radio, but integrating into the Internet shows that it is necessary to aggregate other strategies for producing traditional content. A similar situation was encountered by Cardoso, Vieira and Mendonça (2010, p.2) in their analysis of Portuguese radio.

> This is a concept called "listening fatigue". The voice, the cornerstone of the traditional model, still has its role. In an economy with an overabundance of communication, the discursive dimension, empathy, maintenance and (meta) information make things more competitive. Radio personalities are still *pivotal* figures. Nonetheless, there is pressure for them to go beyond their roles of simply being a voice in a new landscape of online communication. Now we have moderators, who might or might not be radio personalities, and whose job is to make a connection between listeners and the radio (Our translation).

The firm belief that voice is the main product of radio, even in times when platforms and devices beyond traditional radio are emerging, limits the strategic vision of experimenting with new formats and the dynamic integration of content in applications. The research shows that radio rarely had to manage the application because there is no demand for more content.

Another challenge is the business model for traditional radio. According to Bufarah Júnior (2016), it is essential to cash in on the economic potential of new strategies and using new network information technology to stay competitive, especially with online music platforms.

> Basically, radio is changing, and Brazilian broadcasters need to adjust to this new reality. If they do not then the business possibilities, over the medium and long term, will tend to get increasingly less, with audiences concentrated into niches and not huge portions of publics, like in the past. In other words, the radio broadcasting system could collapse shortly due to the lack of a new business model (p.322 – Our translation).

The current radio business model still runs on an analog chain, where content production, company administration, advertising campaigns and program transmissions are all from last century. Attempts at changing this do occur in some company sectors but there are still many who do not understand that restructuring the business of radio is essential nowadays. Cebrián Herreros (2012) used to say that radio is right now going through a third transformation, but it seems that broadcaster owners want to reconfigure their businesses to include digital yet keeping the analog ways of work. If we look at Orihuela (2015), "media changes when the audience culture changes, and if that change is induced by technology, it

is a more radical one: it has to do with new forms of producing, distributing and consuming information" (p.22 – Our translation). The culture of radio listeners is clearly undergoing change, but the medium still insists in remaining stagnant.

Lastly, audience change in traditional radio is important in this process. It isn't just listeners anymore, it is subjects connected to a multiplatform, searching for more integrated content and more narratives:

> It is about a public that prioritizes consumption to the detriment of linear programming and consumes shared content across social networks. This means that even though one is still speaking to subjects individually across their devices, we need to remember that others are receiving content shared by the original internet listener. (...) More than this, the listener uses the radio and its content as one more topic to speak about with other subjects on the same network, taking some of the power away from broadcasters, decentralizing the flow of communication. This, together with the influence of algorithms that control digital platforms and networks, push radio broadcasters to review their content, their audience and their dissemination (LOPEZ, 2016, p. 238-239 – Our translation).

Abert's goal behind the Mobilize-se project offers broadcasters a competitive advantage in the current age of information, dragging the ubiquitous mobile radio multiplatform beyond the radio waves. Even so, just being on a mobile platform does not mean that is all there is to do. Radio broadcasters must have the ability to reinvent themselves, recycle material, revise strategies and learn a lot about the online world.

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