

The Audiovisual Design as a methodological option for radio production¹

O Design Audiovisual como opção metodológica para a produção radiofônica

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ABSTRACT

This article presents the Audiovisual Design as a workflow of processes for planning the creation, production and analysis of radio programs. In the contemporary digital media environment, institutionalized forms of radio are being challenged by the introduction of new technologies. The new available tools and new audience behaviors require radio stations, producers and researchers to become aware of productions that can address both the maintenance of the radio's characteristics and the incorporation of the emerging possibilities. Using simulated and real examples, this essay proposes the Audiovisual Design as a possible and viable tool in the development and study of media-convergent and interactive radio productions.

Keywords: Radio, new technologies, Audiovisual Design

RESUMO

Este artigo apresenta o Design Audiovisual como fluxo metodológico para a criação, produção e análise de programas de rádio. No ambiente midiático digital contemporâneo, as formas institucionalizadas do rádio estão sendo desafiadas com a introdução de novas tecnologias. As novas ferramentas, e os novos comportamentos da audiência, requerem que emissoras, produtores e pesquisadores levem em conta produções que tanto remetam à manutenção das formas características do rádio, como incorporem as possibilidades emergentes. Usando exemplos simulados e reais, este ensaio propõe o Design Audiovisual como uma ferramenta possível, e viável, para o desenvolvimento e estudo de produções de rádio interativas e orientadas à convergência midiática.

Palavras-chave: Rádio, novas tecnologias, Design Audiovisual

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INTRODUCTION

TODAY, THE RADIO IS considered a resilient medium. In distinct spatial and historical contexts, many studies show that the radio industry is adapting to challenges introduced by production and distribution technologies (Herrerros, 2008; Bonini et al., 2014; Berry, 2015; Ferraretto, 2016) and by people's new consumption habits (Esteban, 2011; Dubber, 2013; Gallego, 2015; Gambaro, 2016).

The possibilities of changes derived from the evolution of these technologies are only now materializing in successive transformation processes, affecting social and economic practices and the framework and content of radio productions. These processes are, in turn, leading radio researchers to question *what can be called 'radio'*. Marcelo Kischinhevsky addresses this matter and expands the concept proposed by *Enciclopedia INTERCOM de Comunicação* (Intercom's Communication Encyclopaedia): while this work describes radio as a specific language, configured from a number of elements and independent from technological supports, Kischinhevsky states that "[...] as an expanded medium, radio communication cannot be circumscribed to the message", because "When radio is understood simply as language, one misses the role performed by important players in the process: the listeners [...] and the multiple instances of mediation conditioning communication" (2016: 25).

As long as the debates on *what can be radio* continue to broaden our knowledge about the medium, they will never be unfruitful. The baselines of the investigation that originated this article try to uncover what are the institutionalized discourses about the radio, serving as the basis of a discussion on how patterns are established and remain rooted even as the medium faces the current transformations, from the point-of-view that technologies are only one more element to impact production and consumption since they too are incorporated in a discursive sequence that can only be apprehended through the logic of continuity (Wall, 2011). The radio functions as a social institution that is adequate to the diverse spatial and historical contexts, which is why it is important to make comparisons that allow defining the scenario in which a given discourse about the medium emerges.

Challenges and opportunities of the contemporary media environment make a new tool for analysis and production necessary, one that allows us to understand the methods and meanings that are historically attributed to radio production and consumption, and that can help us foresee up-to-date enjoyment practices. In other words, radio producers and critics must be capable of understanding the different instances of fruition of a given radio content, institutionally delimited and anchored by the available set of technologies.

The *Audiovisual Design* (AD), a processual workflow for analysis and production, is proposed in this article as a methodologic model that is able to meet these needs. The essential hypothesis of this work is that, by incorporating a set of knowledges from Media Studies and from the field of Human-Computer Interaction (HCI), a model like the AD will help break institutionalized patterns and support a broader apprehension of possibilities created by digital communication tools. The article is composed of three sections. Firstly, we will present a theoretical discussion introducing the concept of radio as social institution, aiming to demonstrate how the discourses about the medium define its strategic planning. Then, we will describe the Audiovisual Design in the second part, so we can demonstrate it in the third part of the article, applying its methodology to examples from different contexts. The objects used as illustrations are part of a systematic observation of radio programs in Brazil, the United Kingdom and Spain during 2017.

THE RADIO INSTITUTION

It is possible to explain the institutionalization of the radio by identifying what has been determined throughout its history and that leads to its existence in the current form. Inspired by Foucault (1981, 2010), one could determine the elements of the “discursive formation” that, through the “regularity of practice”, defines the operating system of rules enabling an object to be transformed, a statement to appear, a concept to be developed, metamorphosed or adapted, and a theoretical strategy to be established.

To illustrate this in a non-exhaustive way using the radio as reference, we may name as objects technologies (valve transmitter, AM and FM, transmission systems, radio streaming and MP3), shows, models of program scheduling (vertical/horizontal, modular, on-demand), and social agents (audience, producers, managers, presenters, etc.). Nonetheless, we must not refer to the objects *per se*, but to what exists in relation to them and that are dispersed in history. From the relations between the objects we can specify some enunciation modalities, such as audience and reception studies, market researches, legal regulations, self-definition and self-promotion in the market, academic studies related to production formats, technology developments towards a better listening experience, etc. The varied relations between these statements produce concepts such as portability, sensory capabilities, immediacy and instantaneity of content and transmission, public, commercial, community and estate-owned station models, time-shifting of content, etc. In turn, they are combined in theoretical strategies defending or criticizing aspects of the medium: the radio as a companionship

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to lonely people, the almost-death caused by competition and the rebirth of the radio, the maintenance of production formats and business models in digital distribution platforms, etc.

The analysis of the relations between these elements, dispersed through time, must elucidate which discursive choices define the radio as we know it. Although radio industries from distinct places show similarities, they are unique as they reflect their social environment (which is timely and spatially defined). The radio institution is a more-or-less fixed definition regarding the actual and expected social uses of the radio. It is not something defined from top to bottom, but a collection of meanings and applications defined and incorporated by different sectors in a society.

We must, however, clarify that a linear historicization erases the discontinuities in the history of the radio – what Bourdieu (1989: 100-102) would call “possibilities” arisen in each moment and their “probabilities” of being adopted as actual practices. Possibilities are the variables resulting from the antagonistic disputes in each field. For instance, even though it is almost a consensus that new listening habits shall increment the search for online content – an opinion shared by many scholars – radio stations are still not investing enough on their internet platforms to make their web content profitable. Thus, albeit podcast production is discussed as one of the greatest possibilities radio industry has today, the refusal of major companies to truly adopt this distribution model reduces the *probability* of it occurring. A question should be made: is society sufficiently inclined to adopt this form of on-demand consumption, to the point companies will be obliged to resort to another business model? Is the independent sector sufficient to create a market that is strong enough to face the institutionalized forms of production and distribution of radio content?

Prevailing over old, institutionalized perspectives is not an easy task. It requires retracing the reasons behind *what* is said about the radio, and which shape the medium would assume in a different but probable scenario. For Wall (2011: 42), “we will not understand the future of radio by looking at the new technologies of audio distribution. We must look at the way that the technologies are adapted for their social and cultural use”, i.e., how the past sustains the reproduction of the same characteristics in the present. Digital technologies for production and distribution of radio content are not fully explored by stations because, most of the time, companies are conditioned by known methods, so the functions their employees undertake accumulate instead of being hierarchically modified (Ferraretto; Kischinhevsky, 2010). Radio researchers and producers cannot be subordinated to a fixed posture determined by the existing discourse. Questioning what we know about the radio will open possibilities to understand

how it can better serve society, how the field's political and economic forces can be (re)configured, and, most importantly, how societies can appropriate and use what is delivered by the medium.

Although tangible, these propositions require some digression to be truly feasible. It is necessary to know how people conceive the radio and how they perceive it in their routines. The complexity emanates from the diversity of behaviors that one person may demonstrate – determined by listening contexts, habits, types of content, available tools, etc. First, it is necessary to relativize the most simple, institutionalized explanations about the radio (like as a daily companion providing information and entertainment).

The analysis and the creation of a production chain that is connected to the various possible relations of the audience to the radio content, require a methodological tool that is capable of foreseeing and including a range of behaviors being currently performed during the medium's consumption. We agree with Kischinhevsky when he asserts that

The key to the future is content. There is no hope of increasing presence in the media environment for stations that do not offer online-only content besides those previously aired on antenna. The audience should be listened to, and not only have their participation simulated through the reading of messages or mentions on air. (2016: 128)

Still within the scope of the radio, this means including the affordances² and influences of today's media environment (Dubber 2013). Furthermore, we must assume that a collection of discourses related to media consumption have been taking place for the last 20 years, in which notions of media convergence and audience participation prevail (see Bolter; Grusin, 2000; Jenkins, 2008).

Given this scenario, the Audiovisual Design (AD)³ workflow is proposed as a viable processual system for both production and analysis of content. From the combination of theories related to Media Studies and the field of Human-Computer Interaction (HCI) we extracted knowledge, tools and methods that can be incorporated into the processes of creation, production and fruition of sound and video content. Because of its interdisciplinarity, the AD is expected to help surpass the traditional boundaries limiting the examination and creation of mediatic content (Becker; Gambaro; Ramos, 2017).

The Audiovisual Design has been conceived to enable the formulation of answers that go beyond the commonly assumed media forms (especially in radio, TV and cinema), proposing a more inclusive understanding of the processes involved in a circular production-fruition-feedback chain that typifies the

² According to James Gibson (1977, 1979), theorist of ecological psychology, *affordances* are the property of an environment that enable actions (and interactions) of actors with each other and with the elements of the environment. Affordances are both the physical aspects – i.e., those that can be objectively measured and analyzed – and the information available for their perception (cognitive field). Norman (1988) expanded the concept to the physiognomies inherent to the objects that exist independently from the actors. Affordances may be planned to be perceived, apprehended and correctly used. Therefore, every modification to the environment (such as the introduction of digital technologies, herein discussed) may both present new affordances and alter the processes of perception undertaken by individuals.

³ The Audiovisual Design has been proposed by the Audiovisual Design Research Group, hosted at the Informatics Center of the Federal University of Paraíba (UFPB). The group is formed by professionals from the fields of Communication and Computer Sciences, and its main goal is to discuss the production and distribution of audio and video content in interactive digital media. Thus, this is a theoretical-methodological proposal under development and depuration, subject to revisions and modifications.

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contemporary media environment. Simultaneously, the methodology is flexible enough to be adapted to different contexts, and provides the categorization of elements that shape the consumption and production processes.

THE AUDIOVISUAL DESIGN

The AD suggests that individuals can assume four different main roles while becoming involved with media content: Audience, Synthesizer, Modifier, Producer. The theory is depicted in a graphic workflow representing “sets”, so one group of individuals may be, at least partially, contained by the previous one (Fig. 1). Four *Lines of Design* connect these sets and promote the change of role: Content, Identity, Motivation and Experience (Becker, Gambaro, and Ramos 2017).

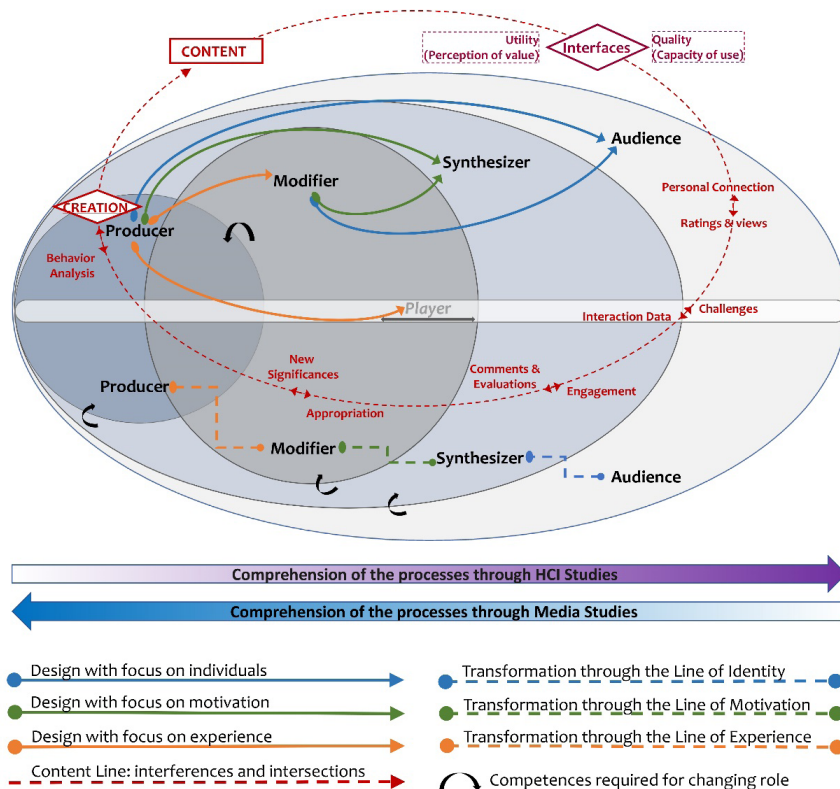


FIGURE 1 – The Audiovisual Design’s Process Workflow

Source: Audiovisual Design Research Group

The *Line of Content* refers to the planning of sound or video production and the interfaces through which individuals will access and consume it. The *Line of Identity* covers how individuals create meaning by using content; how they personally relate to the message provided and how content substantiates the private construction of the self. The *Line of Motivation*, on the other hand, refers to the reasons, actions and tools used by individuals to justify the promotion of their identities to others, that is, how a person projects his or her constructed *self*, seeking legitimation within a group and connection to other people. This may include the motives to engage in a collaborative activity, for example. Finally, the *Line of Experience* expresses the concern with how the media system and its contents may be appropriated by individuals; how the content and interfaces are experienced, that is, learned, used and even modified by people.

A person can assume different roles, according to the type of content or interface, and to the activities that he or she chooses to undertake:

Audience: all individuals in contact with a given work. However, people are attributed the role of Audience by the AD only if they remain within the most basic spectrum of activity (before they change into a new role), their relation to the content being either passive or inert. This group refers to the public of the open transmission communication model, or broadcast (Jenkins; Ford; Green, 2014). Their activities are restricted to searching, choosing and watching or listening to content in any available platform, with sporadic commentary directed to the Producer in a private or semi-private manner. The products aimed at people in this role are designed focusing on the individual, i.e., on the personal and private connections that may be constructed by a piece of content. The radio in particular exercises a function in “shaping our senses of pleasure and horror”, through “its capacity to provide reassurance, guidance and advice alongside its creation of a significant sense of an ‘imagined community’” (Bainbridge; Yates, 2013: 9). Therefore, the Line of Design that better attends the requirements of this level of fruition is the Line of Identity, *individual meaning* and *memory construction* being central concepts to be considered by the Producer. The non-specific data from audience ratings and number of access to digital content are the main information the Producer have to measure the product’s efficiency.

Synthesizer: Google’s vice-president Bradley Horowitz (2006) suggested the word *synthesizer* to define people who might actively participate in an interactive platform such as an internet forum. Considering that, among other meanings, the dictionary entry for “synthesis” defines it as “the act of combining separate things, ideas etc into a complete whole” and “something such as a substance or an idea, made by combining different things” (Synthesis, 1995), the AD incorporates the definition coined by Horowitz to refer to people who comment and

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share material related to a work, especially through social media, referring to the product as a whole. Synthesizer is also the term chosen to represent audience members who feel comfortable to publicize their thoughts about the program. The transformation from the role of Audience to Synthesizer occurs via the Line of Identity, but the Producer must bear in mind also the Line of Motivation. In other words, the individuals will use the show to construct not only their personal identities, but to connect to others in a social network – such as a fandom – or even to create an online performed identity. Thus, the content of a radio program must not stand alone as an audio message to be aired, it must also include ways for the audience to comment and share. Of course, these activities can (and will) be spontaneously undertaken, but the Producer might have a little more control if they are predicted during the design of the content. The feedback to the Producer is complemented by analyses of comments, of quantitative data of shared content, of the evaluations made (for instance, in fan blogs), etc.

Modifier: This is the group of individuals who appropriate and transform the content to express something about themselves. These over-engaged hardcore fans must acquire competencies to perform this role. The Producer must be concerned with their Experience, since the users must have some domain of tools to transform the content. Different competencies and goals direct the action executed by Modifiers, such as *remixing*, i.e., the appropriation of content to create something new, connected or not to the original idea (e.g. memes, fan music videos, protest material, etc.). Other example is *improving*, an action that is more valuable to the Producer, for it refers to the use of original content to amend something the fans dislike about it, altering the original meaning or creating a new narrative form (e.g., fanfics, recuts of audio or video content, etc.). The new significances generated by the transformed work is the feedback that will reach the Producer. *Participation*, in turn, is more connected to Radio and TV studies, since it refers to the action of a person who modifies the show (live or recorded) while it is being produced, thus altering its contents and becoming, at least temporarily, a co-producer.

Producer: the person or group of people, whether independent (amateurs or under commission) or employed by a media corporation, responsible for the contents' design. A Modifier changes his or her role into Producer when they have the means to make the contents relatively independent from those of reference. Producers must have the necessary competencies to analyze the set of data obtained from the audience (ratings, personal evaluations, modifications to the content and its meanings, etc.), so they can alter ongoing shows, or correct the structures of future productions. They must also master, individually or as

a group, not only the content's production, but the software and interfaces that will enable it to reach the audience as well.

The AD considers that there is a small proportion of people in each role who adopt the necessary technology and have enough competencies to put the totality of tools available on their level to the test. They take on an elevated role, *Player*, which can only be assigned to them as part of the group they belong to. For instance, an individual in the role of Audience-Player who is accessing an interactive sound software will listen to every available bit of sound, explore each element within the interface – such as hidden functionalities and codes to be broken –, but will not share it or make comments to anybody. The Synthesizer-Player will engage with a transmedia narrative by searching and accessing every piece of information, by taking part in every fandom activity – such as blogs, forums, and other social media –, but will not produce derivative content. Players are important in the AD workflow because they represent those who can test and provide a reliable response about novelties introduced with the development of technologies and interfaces.

The two arrows at the bottom of the graph represent how Media Studies and the field of Human-Computer Interaction (HCI) observe the development of an interactive production. The one on the bottom refers to how audiences use the content (the attributed meanings, the cultural appropriations, the symbolic values), whereas the upper one refers to the use of HCI tools to develop audiovisual content.

The Media Studies' tools and methodologies are most commonly associated with current, conventional productions. Primarily, producers use the reading of audience ratings to determine the format of shows and broadcast outputs in accordance to their current and past relative success or failure. However, considering the different platforms where the content will be available – especially those on-demand – other metrics must be considered, such as the audience's direct and indirect responses, the analysis of which portion of a show is most listened to, etc. As a more in-depth approach, the preferences of the entire audience can also be read in social terms, to emphasize or criticize a type of production (or its contents) in terms of the social functions it may take on. For instance, a radio station that wants to produce content devoted to a minority group (or a niche market) must have enough information to select the contents that will a) draw the attention of the selected audience; and b) supply these individuals with information that is relevant to them. If successful, the contents will generate enough engagement and be distributed by the individuals themselves, spreading the message. The analysis of the Audience's profile (in terms of level of knowledge, social position, technical background, etc.) also

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helps enumerate the competencies required by each role, so a given audience segment can understand the contents and use the interactive platform available. The recognition of radio listeners as acting, complex individuals departs from the institutionalized version, but incorporates issues and perspectives that supersede the simplified form.

At this point, the HCI field offers tools to predict the possible results of a piece of content, such as the development of *personas*, i.e., of archetypical characters that can help simulate interactive scenarios (Dix et al., 2004) during the first phases of the design. Personas are useful especially when the Producer lacks resources for major data surveys, pre-exhibitions, etc. Although the concept of personas is more connected to the development of interactive systems, the AD proposes that it may also be used to formulate the contents themselves, especially drama and documentaries (containing a clear narrative line). As a virtual example, the Producer would come up with two (rarely three) ideal listeners (personas) to help evaluate if the content (the language, the rhythm and pace, the information), as well as the different interfaces (radio set, website and interactive mobile app) are adequate to the actual listeners. A primary persona would reflect the program's main targets, while a secondary persona would show the features not perceived by the primary one.

Since the contents are to be distributed in different media platforms, a full comprehension of how people will relate to them in each different space is required. Thus, while the aired content must carry relevant information to keep the audience's attention, in web-based platforms the visual and interactive affordances gain relevance. The specificity of the interface is a new layer added to the production: how will the individual, now a listener-user, access and enjoy the show? Questions about "quality" (capacity of use) and "utility" (perception of value) are brought by the HCI: can the individual understand and use the tools without further explanations? Do the supplied tools satisfy the needs of the users so they may enjoy the contents with minimum interference from the technologies involved (when that is the case)? Does the program (and its interactivity) say something about the listeners to themselves individually, or to the group they belong to? For example, if people are expected to share the contents, not only the tools must be available in a simple manner, but the whole interface must invite the users to do it and reward them for it – with an object or with emotional satisfaction.

The listener's overall experience may be affected and expanded. A 2-hour broadcast must consider that the listener may join in after it has started, so the script must minimize the loss of information. In turn, shows available on the web must enable the user to catch-up, listen again or postpone the fruition,

but must also include additional content to complement the text of reference – transcripts, pictures, even games and interactive sections that reward the person with the discovery of new information. Likewise, it must foresee the possibility of commenting and sharing, being even adapted into new pieces to be redistributed online. An adequate interface would require usability tests corresponding to the affordances of the technology employed, which is an area covered by the HCI field.

The novelty of the AD workflow is the possibility of creating, planning and producing the same program for many groups of people, each one with a level of activity that will vary from passivity to full engagement, from inertia to action, resulting in different responses that can be incorporated into the production chain. It means future productions can benefit from the accumulation of datasets about habits and behaviors of individuals with different expectations. It is about delivering content which the individual will identify him/herself with, but it is also about considering and integrating personal productions and activities. In the case of the radio, the application of the AD may translate into programs that adhere to different needs: the audience that expects radio production to be the same as they are used to, that is, in accordance with the institutionalized forms of listening and participation; and people with new interests, derived from the digital media environment, thus putting into question the absolute definition of *what* the radio is.

DEMONSTRATING THE AUDIOVISUAL DESIGN: LIMITATIONS AND POSSIBILITIES

Two main issues can limit the adoption of a methodology like the Audiovisual Design in radio production, one connected to the other: the institutionalized discourses and habits of radio production and consumption, and the resources available for developing content. In addition, the radio features a different set of characteristics that are historically rooted in each context it is part of.

To illustrate this, one of the main barriers against radio development in Brazil is the low advertisement revenue, affecting especially small stations. The continued interpretation linking the radio's legitimacy with its use as an important means for acquiring information, a statement backed mainly by the audience of morning shows (Castro 2014), also contributes to this. The result is a journalistic programming based primarily on factual coverage, with few or no in-depth investigative productions such as featured news stories and documentaries. The hypothesis that listeners would not consume complex spoken shows simply because they are not used to them hovers over this context. Additionally,

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the recurrent discourse about the journalistic coverage reproduced by scholars pushes the discussion about musical programming to the background. Deprived of a relevant presence of the public sphere to propose different formats and contents, the radio is heavily configured by commercial interests, using digital tools to cut costs without even considering the current decrease in audience (Kischinhevsky 2007) – or, at least, this is the institutionalized discourse.

In comparison, the quest for higher audience ratings in Spain results in stations creating really long shows (Sande; Miguel, 2013). Considering the level of adoption of the internet by Spaniards, radio broadcasters (in special those belonging to large Spanish media groups) are trying to increase their digital presence because they need to. A great deal of what is produced to be aired is transformed in on-demand services, both in the form of MP3 files and audio streaming available on the stations' websites, or via other means like iTunes Podcasts. Nevertheless, many programs (particularly morning shows, often the longest in the schedule) are conceived as a continuous chat which the listener barely takes part in, not fitting into the on-demand logic. This type of show suggests that the individual will keep listening for a long period, what is not always true in live transmission nor in asynchronous listening. Not even the estate-owned station Radio Nacional de España (RNE) can be regarded as an exception, due to the low audience ratings achieved by the programs that are most interesting in terms of language.

The British case poses a different scenario, though. The historical monopoly of BBC is still reflected in its dominance over audiences today⁴ (Wall, 2000), and legitimates the Corporation as creator of varied, well-produced content, whether in-house or outsourced. Still, sometimes questionings about what BBC should deliver to its audience occur, following the general idea that public services presuppose educational and cultural purposes (Lewis; Booth, 1989; Bonini et al., 2014). This debate has been crucial since the 1960s, when the scarce presence of alternative music styles in the station's programming became one of the pillars for the emergence of pirate stations (Barnard, 1989). The development of BBC thereafter (divided in different programs) and the regularization of commercial stations years later, are other points dispersed in history. In contrast to the necessary commitment of BBC to a diversified programming, commercial stations (especially those belonging to large communication groups) take advantage of current regulations to cut costs and deliver a standardized programming, as illustrated by the commentary of McDonald and Starkey (2016) about the consolidation of the commercial radio sector in Britain through the buyout of local stations.

⁴Data from Rajar (<www.rajar.co.uk>) showed that all BBC stations together sum up to about 50% of total radio audience in Britain.

Given these contexts, we now present illustrations of how the Audiovisual Design can be employed as a powerful tool in the development of programming. Models extracted from each of these countries are analyzed under the light of the AD processes, with suggestions of possible corrections and improvements.

The first example is Spanish and has been chosen for, despite having aired for more than 25 years, still achieving good audience ratings – although the number of listeners has dropped in the last years. Furthermore, its simple format, based almost solely on voice, represents a peculiar use of the radio to establish a connection with and between listeners. *Hablar por hablar* is one of those shows that allow a station to be recognized by its quality and tradition. It is a late-night show aired by the commercial, talk-and-news broadcaster Cadena SER, from the Prisa media group. Listeners make calls from 2am to 4am to tell their stories live, in long testimonies. The format – symptomatic of the great predominance of voice in Spanish radio⁵ – is marked by the sensibility and subtleness of the presenter, who attentively listens to the person telling his or her story, almost not interfering. Everything is calculated to create intimacy: the host's comments, the tone of voice, the songs played in the beginning and at the end of each segment.

Just like every other program from SER, each episode is available on the station's website, and that is when it loses most of its exceptionality. The show is a live museum of people and contemporary history. Each listener's participation is unique and can be treated as a standalone piece requiring minor editing. As part of the bedtime schedule, the show sustains itself with the involucrum of the night. The warmth of the show feeds the relation between listener and content through the Line of Identity. The intimacy appeal is lost in the on-demand version, made available through the same interface and with the same formatting as the shows based on news coverage and daily debates. It is thus possible to say there is a design error. Why not to have an exclusive webpage that enhances the value of the text extracted from the stories told during the night? Why not invite listeners to take part in it, by commenting and sharing – online – their opinions and beliefs? The content, as it is produced now, has a giant potential to generate links, but the tools are not offered by the station. A calculated design would maintain the broadcast format (which affords a rich identity relation), but the Producer would be able to plan ways to engage the fans of the show, such as by commenting, sharing or taking part in it (moving them from Audience to Synthesizer, and increasing the number of participating Modifiers). Complementing the process, the Producer would even offer tools to inspire a complementary, digital participation, designed in accordance with how individuals respond to the possibility of sharing and commenting on

⁵ From the general observations regarding the Spanish market, undertaken during a research internship in May 2017, it was possible to observe that broadcasters with programming schedules composed of basically newscasts and radio magazines are amongst the most listened, such as Cadena SER – the leader – Cope and Onda Cero. Also, the most common radio show format in Spain seems to be morning shows, present in almost every station (even musical ones), as well as other programs with a great presence of spoken voice.

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content. In this way, the user-generated content derived from these new, more experienced interactions, could be incorporated into the show.

Let us now focus our attentions on Brazil. Two all-news networks, CBN and BandNews, have been chosen because both are less than 30-years old, and upon their establishment, each represented a novelty amongst the dominant radio programming in the FM dial of São Paulo. In relation to audience reach, they are the most important journalistic stations in São Paulo, being also present in other Brazilian markets. Their teams are formed of skilled professionals, capable of a rapid and efficient coverage of facts.

Hard news compose most of the programming, apart from only a few specific shows addressing a broader spectrum of themes⁶. CBN's and BandNews' legitimacy as information gatekeepers comes mainly from the in-site news reports and the news' repercussions, normally through interviews with specialists, representatives from companies and governments, and the commissioned commentators and columnists. The audience's voice, however, is almost absent in its programming, except for a few *vox pops* in news packages. As for the websites, CBN and BandNews offer real news portals, CBN being more prone to favoring audio over image or text – almost every headline in the home page has two icons, one to listen to a piece of audio and another to share a link via social media. The audio contents are played in a separate part of the page, so the user can continue navigating. Most of the audio is extracted from the live programming.

One may say both stations fulfil the expected functions, especially CBN. Nevertheless, both broadcasters lack space for a deeper, more detailed news coverage – whether in the aired content or on their websites. By feeding the on-demand services mostly with small fragments of information taken from the live programming, both companies do not offer more features to attract users than competitors such as websites of newspapers and magazines. The texts accompanying the audio pieces are often transcriptions of the interviews or commentaries. Likewise, there is little organization to connect dispersed works related to the same coverage: the “related news” sections of both websites are organized by a faulty system of tags and do not provide a coherent succession of facts and commentaries. Since these two networks are competing not only with each other and with other all-news and all-talk radio stations, but also with online newspapers, TV channels and online magazines, it is important to try different program formats. And, if CBN and BandNews were to create different presentations – such as seasonal features or documentaries – making them available on the Internet would be a requirement to achieve a broader spectrum of listeners. The

⁶ Actually, BandNews has some shows with different approaches, such as *Em Forma*, about health and the fitness world, and *É Brasil que não acaba mais*, reporting unusual facts and curiosities about Brazil's dynamics.

design of such shows would require a new planning of the websites, since today they reflect the factual news coverage only. By promoting a different use of the web services, the stations would create novel types of connection with listeners, beyond the institutionalized form of an individual tuning in primarily to be informed.

A complex production, such as a series of documentaries, designed via the AD's processes, would satisfy the expectations of an engaged listener. By analyzing how the Audience accesses the station's on-demand content, and how individuals behave during the transmission of a long-length show, the Producer would be able to come up with a scenario in which the demand for a documentary is feasible. This scenario would comprise not only how people listen to a show, but also the content they are more likely to engage with (the Producer would have to work over the Lines of Identity and Motivation). A feedback system would also supply the Producer with enough information to know how to adapt the show to the different platforms and interfaces. A program is usually divided into segments for its accommodation within the station's broadcast schedule (a news block has a 20-minute duration, approximately); the on-demand version should be formatted to accommodate continuous or intermittent listening and enable the sharing of these segments. Storytelling elements may be added, such as hooks and cliff-hangers, to keep the listener's attention. Additionally, the website should be used to offer exclusive content – although this would increase production costs, it would also promote a more engaged connection between listener and station. Once again, even if not all of the audience interacted with the production, at least some users would benefit from these available extras, especially if the content says something about their selves. How individuals respond to the interactions would generate important information to modify or recreate future episodes or shows.

Even minor modifications to CBN's and BandNews' websites today would make the user's experience richer, offering more tools to engage listeners in other activities than reading and listening. The use of video, for example, has been reduced by CBN in the last few years, ignoring the importance of visual content as a complement to sound information. The central question, to be answered by analyses based on the different roles of individuals, is how much the visual information improves the user's experience while he or she is interacting with the content. Similarly, the active participation of listeners in shows – or through backstage interaction with the production team – could be appreciated by a parcel of the audience if the stations create a policy to systematically absorb this production. In other words, while the current websites treat internet users as Audience, some improvements and the delivery of interactive content to

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complement the aired content – based on the Lines of Motivation and Experience – would open doors to a more engaged Synthesizer.

The British case requires the study of BBC's website for two reasons: firstly, the already mentioned importance of the public sector for the British communication system; secondly, the lack of investment by the main commercial stations both in the digital interfaces and in the variety of programs. BBC's website is organized following the departmental division of the Corporation itself, causing some contradiction when it comes to user interaction and activity: the iPlayer system offers a large collection of previously aired shows, but the web interface and search systems can make users' life very difficult if they are trying to find a specific episode but do not know the date when it was aired. Furthermore, the standardization of the website's interface leaves little space for customization of each show's page, limiting the amount, type and format of complementary content. The user's experience is also impaired by the lack of links between similar content in different departments. To cite a real example, it is very common that a piece of content produced by one of BBC's stations about a musician or music band is not referred to in that artist's or group's page on the BBC Music website – which is another department.

BBC's website is a real catch-up platform for asynchronous enjoyment, but only a few possibilities expected from on-demand systems are incorporated. If we use the AD methodology to suggest the (improbable) redesign of the website, it would require an analysis of how the audience of each station relates to the content and to the interface (each station has a clear definition of target audience). It is not a mistake to suggest that the tools offered in each station's page should be different in accordance to the age of the target audience (Line of Experience). Likewise, each different piece of content may require a unique form of distribution, one that can appropriately complement the aired show (e.g., programs in Radio 1, a pop music station for teenagers and youngsters, have a much different structure from those of Radio 3, segmented in instrumental music, and from those on Radio 4, a variety station with focus on adults and older people). The Producers would profit from these changes, since they would be able to offer, in BBC's platform, contents with features other than sound – accessory information and images, or even interactive tools complementing a complex storytelling. Curiously, today the BBC portal offers some pages that advance in user interaction – mainly devoted to children – demonstrating that the possibilities already exist, but they still must be planned within radio productions.

By observing the Corporation's social media and website from the AD's perspective, one will note that the role of the Audience is emphasized, while some

superficial activities and content are available aiming at the Synthesizer. Given the amount of content produced by the stations and the other departments, a user-centered structure for organization of the contents would be welcomed – another scenario in which the AD can help, by categorizing the individuals in different roles. Therefore, it would be possible to identify which contents are shared and which are enjoyed only within the platform; which productions generate more engagement, and what type of engagement; what the flow of consumption of information within each group of listeners is like (the order an artist is searched for and accessed via web platforms and mobile apps, for instance). This set of data could then be used to configure the web-based content to be more connected to its listeners. This would probably mean a website mapped like a spider web, with nodes jointly constructed by stations, departments and the users' actions, linking all the dispersed content. Additionally, the webpages could include tools to make it easier to contact shows and presenters while on-air and facilitate the interaction with the content through comments, sharing and even its adaption into new productions by users. Today, there is not an easy way to create a community around a regular show, and it impacts on the capability of BBC to follow the changes of the audience within the digital media environment.

CONCLUSION

This article showed how the processes proposed by the Audiovisual Design can help in the development of radio content in conformity with the current configurations of the media environment. Until this moment, the AD workflow has been applied only in analyses of existing or projected sound and audiovisual productions, so there is still no data available regarding the actual employment of its methods and processes. Therefore, the examples we may use can only be generic. The new phase of development of the theory involves testing the workflow in the realization of new productions.

Nonetheless, more than illustrating the methodology, the cases demonstrated in this essay showed the importance of a debate about the radio that is concerned with the transformation of the current programming, which has been historically institutionalized. Upon the development of the studies, it will be possible to propose new types of shows, such as reality shows, interactive drama and documentaries, etc., which incorporate new media affordances.

The increase in production costs following the adoption of the AD methodology must not be ignored. In fact, it is possible that only a few experimental productions apply every step of the production scheme. Still, some AD proposals,

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like the division of the public into three groups – Audience, Synthesizers and Modifiers – might help Producers (developers) to come up with interesting new functions for the stations' interactive systems. Such tools should be designed considering that the supplementary content must not fight for the individuals' attention to the detriment of the sound experience.

The discussion presented here was grounded on the belief that the radio was socially institutionalized, in different times and places, through discursive formations that freeze and determine a set of statements about the medium. In understanding the radio as an institution, we clarify the procedures necessary to maintain the functions expected by the individuals who form an inert Audience; those allowing the radio's transformation to satisfy the needs of Synthesizers; and even the required innovations of formats that can trigger the activities of Modifiers.

The examples of radio programs and contents from three different scenarios mentioned in this essay (Brazil, Spain and United Kingdom) show that the most commonly absent feature is a set of interactive tools that is able to increase user activity, engagement and identification. The notions of engagement and identity should be associated not only with the loyalty of listeners to a show and their occasional participation on-air, but also with the active role undertaken by every person when promoting the show, the presenter and the radio station (their brands) amongst his or her acquaintances. Thus, it is not enough to invite the listener to access the webpage and read a text or listen to a piece of the live programming. It is necessary to create material that is worth commenting and sharing. There are not many examples of radio stations that care for these activities, with the exception of those that produce memes and distribute them in their timelines on social media.

The design of shows – experimental or not – must put the individual at the forefront, contemplating how each person will relate to the contents and to the access interface. The fundamental questions, then, should be: What does this person expect about the radio today? What does challenge them? Which features of my show will convince him/her to choose the radio over any other way to spend his/her time? It is, at the very least, a beautiful way of understanding the radio beyond its institutionalized form. ■

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