

Beyond audio broadcast: interactions in podcasting

Para além da emissão sonora: as interações no podcasting

Más allá de la emisión de audio: interacciones en podcasting

Alê Primo

Abstract

Podcasting is a media process that emerges from the publication of audio files on the Internet. Due to the minimal technological structure required, production and distribution can be carried out simply by just one person. In other words, it enables independent production with a global reach. Podcasts can not only be searched for on the Internet, but also subscribed to (via the RSS feature) to automatically receive new episodes through the use of aggregator software. As well as audio, each program can contain images, hypertext links and be divided into chapters. In this way, it goes beyond mere listening, offering a multimedia experience and forms of navigation, both within the program and on the web. Podcasting, however, is not just about easily broadcasting content on the web and new forms of reception. As podcasts are usually linked to a blog, dialogical interaction can take place between all the participants in the process, blurring the traditional separation between the instances of production and reception in the mass context. In addition to detailing the conditions of production and reception of podcasts, in contrast to broadcast radio, this article also seeks to reflect on the process of remediation between podcasting and broadcasting, the potential of this new medium as a micromedia (Thornton, 1996) and its impact on the recording industry.

Palavras-chave: Podcasting; Computer-mediated interaction; Micromedia.

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Resumo

Podcasting é um processo de mídia que surge a partir da publicação de arquivos de áudio na Internet. Devido à estrutura tecnológica mínima necessária, a produção e a distribuição podem ser realizadas por apenas uma pessoa. Em outras palavras, ele permite a produção independente com alcance global. Os podcasts podem não apenas ser pesquisados na Internet, mas também assinados (por meio do recurso RSS) para receber automaticamente novos episódios com o uso de um software agregador. Além do áudio, cada programa pode conter imagens, links de hipertexto e ser dividido em capítulos. Dessa forma, ele vai além da mera audição, oferecendo uma experiência multimídia e formas de navegação, tanto no programa quanto na Web. O podcasting, no entanto, não se trata apenas de transmitir facilmente o conteúdo na Web e de novas formas de recepção. Como os podcasts geralmente estão vinculados a um blog, a interação dialógica pode ocorrer entre todos os participantes do processo, obscurecendo a separação tradicional entre as instâncias de produção e recepção no contexto de massa. Além de detalhar as condições de produção e recepção dos podcasts, em contraste com a radiodifusão, este artigo também procura refletir sobre o processo de mediação entre podcasting e radiodifusão, o potencial desse novo meio como uma micromídia (Thornton, 1996) e seu impacto na indústria fonográfica.

Keywords: Podcasting; Interação mediada por Computador; Micromídia.

Resumen

El podcasting es un proceso mediático que surge de la publicación de archivos de audio en Internet. Debido a la mínima estructura tecnológica necesaria, la producción y distribución puede llevarla a cabo una sola persona. En otras palabras, permite una producción independiente de alcance mundial. Los podcasts no sólo pueden buscarse en Internet, sino también suscribirse (a través de la función RSS) para recibir automáticamente nuevos episodios mediante el uso de software agregador. Además de audio, cada programa puede contener imágenes, enlaces de hipertexto y estar

dividido en capítulos. De este modo, va más allá de la mera escucha, ofreciendo una experiencia multimedia y formas de navegación, tanto dentro del programa como en la web. El podcasting, sin embargo, no se limita a difundir fácilmente contenidos en la web y nuevas formas de recepción. Como los podcasts suelen estar vinculados a un blog, puede producirse una interacción dialógica entre todos los participantes en el proceso, difuminando la tradicional separación entre las instancias de producción y recepción en el contexto de masas. Además de detallar las condiciones de producción y recepción de los podcasts, en contraste con la radiodifusión, este artículo también pretende reflexionar sobre el proceso de remediación entre el podcasting y la radiodifusión, el potencial de este nuevo medio como micromedia (Thornton, 1996) y su impacto en la industria discográfica.

Palabras clave: Podcasting; Interacción mediada por ordenador; Micromedios.

Prologue

This article, written in 2005, intended to make sense of a new communication phenomenon: podcasting. At that time, there was a question if it constituted a new form of radio. At first, this paper discussed the singularities of both media. Even though recognizing that podcasting was not radio, I recognized that the former remediated the latter. Naturally, there was an interest around the technological possibilities brought by podcasting. Yet, this paper focused on the interactions allowed by the phenomenon. With this intent, Thornton's concept of micromedia showed its heuristic power, allowing the understanding of how podcasting could work as an alternative medium, in contrast to mass media and niche media. Also, the concepts of conditions of production and reception, from discourse analysis, were central for this discussion. During its first wave, narrated here⁵⁴, there was an activist enthusiasm of how podcasting allowed new voices to be heard, which were not associated with the big media capital. Many pioneer podcasters did not even play music with copyright. That is, together with the new medium ease of production and publication, and its interactive possibilities, there

⁵⁴ Almost ten years later, some of the examples cited are not online or valid anymore.

was an utopia of changing the media space. More than a technological innovation, podcasting could promote political changes. Today, not only the technology of podcasting has changed (streaming, for example), but the actors in the podosphere (as it was then called) are not the same. While the paper opposed podcasting as micromedia from massive radio, now many media conglomerates have several podcasts, with expensive conditions of production (which is far from the independent production described here). Streaming platforms also recognized the lucrative potential of podcasting, creating sections dedicated to it, and investing in some popular podcasters. That is, after the activists' interest on the political power of podcasting, today podcasters focus on its lucrative potential. The audiences have grown significantly and are now more diverse. On the other hand, the interactive potential of podcasting has weakened – not just the use of its multimedia capabilities (chapters and images), but also its connected conversations. The very concept of podcasting is also more fluid. Some video talk shows on YouTube and Spotify refer to themselves as podcasts (videocasts would be more precise). In summary, this article describes the emergence of podcasting, its promises and proposes a focus of interaction, instead of a simple technological discussion. The questions raised here are still relevant and promote new debates and actualized answers.

Introduction

Two media phenomena from the beginning of the century: broadcasting and podcasting⁵⁵. These two forms of audio production have challenged our thinking about social communication. Since its launch, we can't think about social and political life without the intervention of radio. Despite the many failed predictions of the death of this medium, radio endures as one of the most important means of communication of our time. And it continues to reinvent itself. Podcasting, on the other hand, has emerged as a new media process on

⁵⁵ The term podcasting is a neologism that combines the suffix "casting" (distribution or diffusion, in the media sense) with the prefix "pod". The latter represents the impact of portable players for digital music files (the so-called MP3 players), such as Apple's iPod. In this sense, there is a conceptual opposition between podcasting and broadcasting.

the Internet, offering particular forms of interaction.

As for radio, it can no longer be linked to the analog context, to sound transmission and to a receiver of electromagnetic waves. Its transmission can be digital, include textual information and even be listened to on cell phones and televisions. This is radio's new multimedia environment, as Cebrián Herreros (2001) diagnoses. According to the author, "Radio information appears within the programming of a mutant radio subject to a set of technical, organizational, financial and audience fragmentation changes⁵⁶" (my translation).

With the emergence of Internet, other forms of interaction through audio have been developed. Web Radio, using streaming technology⁵⁷, has made it possible to listen to the programming of traditional radio stations or companies dedicated to this new form of audio production and transmission via the computer. In addition, various Web Radio sites have started to offer on-demand music listening, allowing internet users to select which songs or styles they want to listen to. This service is usually linked to online music sales sites.

With the spread of podcasting, however, the following question arises: is it a form of radio? Although both radio broadcasting and podcasting work with audio, there are many characteristics that individualize them⁵⁸. This article aims to discuss the interactive forms that distinguish podcasting. However, as this new Internet phenomenon appropriates many elements from traditional radio, this argument will always have to resort to the radio context. Strictly speaking, podcasting remediates radio. Remediation, as proposed by Bolter (2001), occurs when a new medium borrows characteristics from a previous one. It works like a cultural competition between technologies. There is also a recursive impact, in the sense that the new medium can reorganize the cultural space of the older medium. In other words, newer media can both inherit and appropriate elements

⁵⁶ In the original in Spanish: "La información radiofónica aparece dentro de la programación de una radio mutante sometida a un conjunto de cambios técnicos, organizativos, financieros y de fragmentación de audiencias."

⁵⁷ The program is broadcasted at the same time as it is listened to. In other words, you don't have to download the program in its entirety before listening to it.

⁵⁸ Lemos (2005) points out that radio serves as a metaphor for podcasting.

from their predecessors and update them⁵⁹.

This article, however, does not want to limit itself to technological or aesthetic discussions of podcasting. Its main objective is to reflect on the interactions provided by this recent form of mediated communication. Also, to discuss the new contexts of production and reception that are being opened, as the dialogic interactions that can occur with podcasts⁶⁰ cannot be ignored.

Podcasting as micromedia

To understand the insertion of podcasting in the context of communication, it is first necessary to understand the contemporary structure of the media. Observing the multiplication of new media, the development of narrowcasting and computer networks, Thornton (1996) proposes 3 media levels, which go beyond the broadcast/narrowcast dichotomy. In addition to mass media, the author distinguishes between micromedia and niche media. Thornton calls micromedia a set of low-circulation media aimed at small audiences, ranging from rudimentary print media to digital tools. The author points out that micromedia is of particular importance to many subcultures. For the clubbers studied by Thornton, it is precisely flyers, fanzines, telephone information, free radio (which will be discussed shortly), e-mails and Internet files that have the most credibility⁶¹. From the point of view of this subculture, the traditional mass media provide distorted information, produced according to market interests.

Niche media, on the other hand, target very specific audiences, but have a

⁵⁹ Bolter suggests that video games remedy films, since they present themselves as "interactive films"; virtual reality remediates film and perspective painting; the Web, in turn, appropriates practically all previous media. On the other hand, cinema is updated with recent technologies such as computer graphics, and vignettes and television programs take advantage of the aesthetics of web pages.

⁶⁰ The term "podcast" suffers from the same ambiguity as "program": it can mean either a serial media product or one of its episodes. However, it is important not to confuse podcasting (the process as a whole) with podcast. Furthermore, as the word "program" is also used in another sense in computer science, the term "software" will be preferred in these cases.

⁶¹ The author comments that fanzines can be responsible for filling nightclubs, despite their restricted distribution. It is therefore necessary to recognize the potential of micro-media in boosting the strength of so-called "word-of-mouth".

greater reach and sophistication than micromedia. Segmented magazines are a good example of this category. And many journalists who work for such outlets are very familiar with their target audience, as they are often part of these segments.

Niche media work to produce content for a well-segmented target audience, whose profile is assessed through constant marketing research. Hence, the production conditions of niche media are more similar to those of mass media. In addition to the impact of the division of labor in the production system and the frequent use of the same distribution channels⁶², the pressure of economic and political interests also weighs on the editorial policy of these media. As niche media present themselves as an important advertising alternative, the content of these media often deals with or even creates stereotypes and labels for music, behavior, fashion, etc.⁶³. This aesthetic standardization responds to the marketing interests of advertisers. In other words, despite not having the masses as its audience – but rather a public with shared interests, with a socio-economic profile located within a delimited range – niche media also has the main purpose of selling its content to the market, which targets the consumption potential of these specific groups.

Many niche media are owned by the same conglomerates that have traditionally exploited the mass media. On the other hand, Priestman (2002) comments that narrowcasting facilitates the emergence of small competitors. Studying Web Radio, the author highlights the potential of segmented programming that respond to the interests of smaller groups of listeners, who cannot be served by mass media that need really large audiences to be viable.

But if Web Radio works as a niche media, what kind of media is podcasting, according to Thornton's classification? Although the initial tendency is to classify it as micromedia, we need to reflect a little more on the issue. Podcasts produced by individuals and groups with no links to media corporations and which reach

⁶² Distributors of printed periodicals, for example.

⁶³ On this aspect, see Thornton (1996).

small audiences are indeed micromedia. On the other hand, companies operating in mass and niche media are already producing their own podcasts. In other words, the publication of audio files and RSS feeds⁶⁴ does not necessarily determine that podcasting is niche media or micromedia⁶⁵. While the fanzine is identified as micromedia, the same cannot be said of podcasting, since the latter can be exploited as both micromedia and niche media.

Unlike what happened with blogs, media organizations were quick to mark their presence in the "podosphere". While there was a delay in realizing the importance of blogs as a means of communication, beyond the initial descriptions of being only an individual teenage text, the big media conglomerates (such as ABC, NBC, CBS) are already working on podcasting as an alternative to find new audience niches and advertisers. Some of these groups and audiovisual producers use the same audio already broadcasted on traditional media in their podcasts⁶⁶.

This article, however, will focus on the use of podcasting as micromedia. What interests us here is its potential to facilitate the publication of content (not just audio, as we'll see) to anyone with access to information technology, to offer innovative ways of accessing and manipulating downloaded episodes, and to encourage dialogic interaction between interactants. In this sense, podcasting goes beyond distributing and listening to audio files. These media products can also include images and links. In addition, podcasts are usually linked to a blog, where podcasters⁶⁷ and other interactants can discuss each episode.

Distribution and access

Podcast distribution differs radically from radio broadcasting. In the latter, distribution traditionally takes place via electromagnetic wave transmitters,

⁶⁴ The RSS resource will be discussed shortly.

⁶⁵ Such a classification cannot be based solely on the technology used. It needs to take into account the conditions of production and the relationship between the instances of production and reception.

⁶⁶ In other words, it's "reheated" content.

⁶⁷ Podcasters are the producers of podcasts.

which travel through the ether to be picked up and tuned in via the antennas of radio receivers. In other words, listening takes place synchronously with the broadcasting of the signal. In this way, in live programs, presenters/speakers can talk to colleagues from the station, interviewees and even listeners at the same time as the program is tuned in by the audience. In podcasting, this synchrony is broken, as the production and publication time does not coincide with the listening time. After recording the final version of the program in an audio file (usually in MP3 format), the podcaster sends it to a server. They also have to upload an RSS (Really Simple Syndication) file⁶⁸. This small text file, written in the XML language⁶⁹, allows software called "aggregators" to be "notified" when a new podcast episode has been published, triggering its automatic download⁷⁰. This lack of synchrony between production, publication and listening is not necessarily a problem, as one might think, and provides new forms of interaction, as will be seen below.

Podcasting doesn't depend on listeners being close to a transmission center. Strictly speaking, the issue of reach has always been a problem for alternative media. In the case of audio media, free radio stations usually have low-power transmitters. Radio pole⁷¹, on the other hand, requires listeners (and even producers, in the case of live programs) to be very close to the speaker that amplifies the sound of the programs. Podcasting, on the other hand, requires the listener to have a computer connected to the Internet to access the programs⁷²

⁶⁸ MP3 and RSS, as technological resources, support free expression - something similar to what happened with the fanzine and the xerox, subject to the appropriate proportions. One difference is that fanzines have a very limited reach, as they are usually distributed hand-to-hand or by conventional mail. Podcasting, on the other hand, is an Internet phenomenon and therefore has a global reach. In this sense, it doesn't matter where the podcaster is or the server where they host their episodes. Their podcasts can be accessed from any computer connected to the network, unlike broadcasting, whose reach depends on the power of its transmitters.

⁶⁹ The RSS file can be generated by certain software, with "user-friendly" interfaces that allow podcasters who don't know the XML language to generate and publish it quite easily.

⁷⁰ Programs such as Apple's iTunes combine the function of playing audio files with that of consulting registered RSS files.

⁷¹ Radio pole is an alternative form of media. A speaker, connected to a tape player or a microphone, is fixed on top of a pole. This medium is used to transmit information to a small portion of the neighborhood.

⁷² It's worth remembering that you don't need a portable MP3 player to listen to a podcast, as it can be listened to on any audio program installed on a computer.

and to be familiar with the process. In this sense, podcasting is, for the time being, a media process that does not reach the underprivileged classes, except for the possibilities offered by NGOs or religious and neighborhood communities, for example. In other words, it is a new way of producing and listening to audio information and opening spaces for debate only for those who have access to cyberspace⁷³.

The emphasis on emission

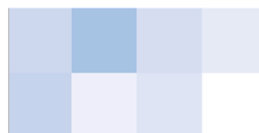
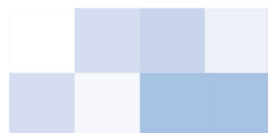
Initially, blogs were approached as an easy publication system. Both the press and various cyberculture researchers presented blogs as an individual product, a digital and public version of intimate diaries. However, the dialogical interaction in comment windows, the interconnection between different blogs and even the formation of blogger communities show that the blogging phenomenon goes beyond the mere simplification of the content publishing process. Similarly, podcasting is also being seen as a facilitated way of producing and distributing content. But why such an emphasis on broadcasting? This trend is largely due to the historic advocacy for the democratization of the media. Blogs and podcasts are fulfilling an important part of this expectation.

While the mass media seeks information of general interest, as Cebrián Herreros (2001, p. 78) points out, the Internet offers support for covering everyday events and satisfying immediate needs. The web facilitates the dissemination of information by specialists, aficionados or people who are simply interested in a particular subject. Cebrián Herreros concludes that "Information direct from sources is emerging. With the Internet, it is the source itself that disseminates the information, it transmits the whole act"⁷⁴ (p.79, my translation).

Moraes (2001, p. 73) states that the law of traditional media is inverted on the web: "the use value is obtained in the relevance of each link, and not by the

⁷³ Although podcasting may only reach a small portion of the Brazilian population, this fact does not prohibit the discussions that will be presented here on the evolution of media processes.

⁷⁴ In the original in Spanish: "Emerge la información directa de las fuentes. Con Internet es la propia fuente la que difunde la información, transmite el acto completo."



consumption of common denominators, indispensable for the cohesion of the mass audience"⁷⁵.

However, the enthusiasm for the new media potential of podcasting must not be allowed to lead to the argument that any podcaster knows the truth best, or that they know what is right for their country or community. Podcasters often comment on news they find in newspapers, magazines, radio stations, television programs or even on Internet portals and periodicals. The mere reporting or endorsement of such information extends the reach of news and opinions published in the media outlets consulted. As most blogs and podcasts are produced by just one person and in their spare time, traditional periodicals serve as a source for their information. In this sense, when this news is only reported, or even ratified, the discourse of the mainstream media is echoed in the voice of podcasters. Therefore, the romantic ideal that assumes that the Internet user's discourse is autonomous and unequivocal does not take into account the discursive formations of those who publish comments on the Internet. Such an idealized view of a podcaster would portray him or her as someone well-intentioned, who has access to the single, unquestionable truth. In other words, an amateur podcaster, despite their independent production conditions, can reproduce the discourse of the mainstream media or even defend radically conservative or even prejudiced points of view.

In short, it's not enough to deal with broadcasting (transmission, emission). The phenomena of blogging and podcasting need to be looked at beyond the ease and ego satisfaction of publishing. We need to study the complex relationship between the conditions of production, the media environment, who is being talked about and the conditions of reception. And, furthermore, to investigate how these actors interact with each other and with the technology that allows for the virtualization of time and space, which would once have imposed barriers to such exchange.

⁷⁵ In the original in Portuguese: "o valor de uso é obtido na relevância de cada ligação, e não pelo consumo de denominadores comuns, indispensáveis à coesão da audiência de massa."

Production conditions

To start thinking about the characteristics of podcasting, considering the previous criticism of the emphasis on mere broadcasting, it is necessary to contrast its production conditions with those of radio broadcasting.

According to Charadeau and Maingueneau (2004, p. 115), these conditions are both situational and discursive in content. "It is true that a speaking subject is always partially overdetermined by the knowledge, beliefs and values that circulate in the social group to which he belongs or to which he refers, but he is equally overdetermined by the communication devices in which he is inserted to speak and which impose certain places, roles and behaviours on him."⁷⁶ In view of the scope of the present article – to observe the systemic impact of this new technology on computer-mediated interaction⁷⁷– the focus here will be on aspects relating to the conditioning⁷⁸ of communication devices in interactive processes. In other words, situational aspects (although other discursive issues will not be ignored).

The production process in broadcasting has a division of labour structure that is shared by different mass media companies. Charaudeau (2003, p. 96, my translation), when dealing with production, provides a good summary of this process:

We speak of an instance, because what governs the production of media communication is a complex entity comprising many types of actors: those who run the news organization have to deal with the company's economic health and operational organization; those who program, linked to the above so that the information they want to deal with has some public success; news editors and technical operators, who select the treatment of information according to the media's editorial line. But they all contribute to producing an apparently unitary and homogeneous enunciation of the media discourse, a coenunciation, whose significant intentionality corresponds to a project

⁷⁶ In the original in Portuguese: "É certo que um sujeito falante é sempre parcialmente sobredeterminado pelos saberes, crenças e valores que circulam no grupo social ao qual pertence ou ao qual se refere, mas ele é igualmente sobredeterminado pelos dispositivos de comunicação nos quais se insere para falar e que lhe impõem certos lugares, certos papéis e comportamentos".

⁷⁷ However, this approach is not technical.

⁷⁸ This cannot be confused with pre-determinism.

common to these actors and which represents the ideology of the news organization when these actors adopt it⁷⁹.

A podcast, on the other hand, can be produced by a single person using only a microphone or digital recorder, a computer connected to the Internet and a web server to store their programs and the RSS feed. This kind of production gives podcasters very close contact with their product, in contrast to the production of massive radio programs, in which many of the players in the production process end up having little (or even no) contact with the final product.

Even home productions can have high sound quality at low cost. There is a wide range of software available on the Internet for digital audio recording and editing, as well as free vignettes and music. Despite this, some podcasters prefer to invest in the content and mobility of recording their programs. The quality of the content attracts the interest of the audience, despite its inferior sound quality. In short, podcasting allows audio programs to be recorded even in mobile situations, without having to rely on a professional audio production structure, and can even be distributed from a wi-fi connection or in an internet café.

Home experimentation also marked the early days of radio. However, due to the limitation of the radio spectrum, national governments began to limit and regulate radio production and broadcasting, imposing penalties for transmissions without government authorization. With state-controlled broadcasting, whoever has a government concession to operate a radio or television medium has power. This is a matter of rarity, as the number of channels to be exploited is limited. However, Machado, Magri and Masagão (1987, p.17, my translation) point out that the mechanism of concessions is not a mere technical expedient: "it is a system of control of broadcasts by the power of the

⁷⁹ In the original in Spanish: Hablamos de instancia, porque lo que rige la producción de la comunicación mediática es una entidad compleja que comprende muchos tipos de actores: quienes dirigen el órgano de información tienen que ocuparse de la salud económica de la empresa y de una organización operativa; quienes programan, ligados a los anteriores de modo que las informaciones que el órgano elija tratar tengan algún éxito de público; los redactores de noticias y los operadores técnicos, que seleccionan el tratamiento de la información de acuerdo con la línea editorial del medio. Pero todos contribuyen a elaborar una enunciación aparentemente unitaria y homogénea del discurso mediático, una coenunciación, cuya intencionalidad significativa corresponde a un proyecto común a esos actores y que representa la ideología del órgano de información cuando la adoptan esos actores.

state. Its mere existence is already a form of censorship, since its function is to discriminate between those who are authorized to speak and those who are condemned to listen."⁸⁰ The same mechanism, it should be remembered, is also exploited by the state to buy votes, offering concessions to politicians as "gifts".

In other words, whoever receives the right to exploit this allotted space can control what is said and what is omitted. Owning this massive broadcasting space lends itself well to persuading public opinion⁸¹. In addition, the history of radio has witnessed a marriage between political power and economic power. The elites who manage to accumulate concessions retain the power of speech and the concession to sell public space to advertisers. This creates a spiral effect that strengthens and enriches the few groups that can exploit the electromagnetic wave spectrum: economic and/or political power works as a prerequisite for the concession, which in turn generates more economic and political power.

There is yet another barrier to free media expression that even some journalists prefer to maintain. This is what Machado, Magri and Masagão (1987, p. 3132) call the myth of professional competence.

The myth of professional competence blocks the community's direct access to the media even more than economic censorship, especially if this myth is supported by monopolizing legislation imposed on society to preserve the interests of corporations. These same media also define access to channels of public expression as a function of the criterion of the authority, prestige and representativeness of the issuer. In all circumstances, the issuing of the message is seen as a matter for the specialist: the specialist of expression, the specialist of technical processing, the specialist of content or spokesperson.

In response to authoritarian forms of control and the cult of specialization,

⁸⁰ In the original in Portuguese: "ele é um sistema de controle das emissões pelo poder de Estado. A sua simples existência já é uma forma de censura, pois sua função é discriminar os que estão autorizados a falar e os que estão condenados a ouvir".

⁸¹ The most frightening political exploitation of radio's manipulative potential in its early decades can be seen in the history of Nazism and the Second World War.

the phenomenon of free radio emerged in Europe in the 1970s. According to Machado, Magri and Masagão (1987, p. 32, my translation), "what gives free radio a noisy aspect, capable of disconnecting the occasional listener, is not so much the precariousness of the technical means, but mainly its commitment to giving the floor to 'smaller' interlocutors, making local accents and plebeian accents speak, as opposed to the uniform and standardized recitative of conventional broadcasters"⁸².

Guattari (1987, p. 11, my translation) states that the free radio movement belongs to those who "will never be able to express themselves convincingly in the official media"⁸³. For the author, they serve as a democratic instrument that encourages the expression of social and individual singularities.

This means that free radio stations are nothing in themselves. They only make sense as components of collective agencies of expression of a more or less large scale. They will have to be content with covering small territories; they may also want to compete, through networks, with the big media: the question remains open. In my opinion, what will resolve the issue is the evolution of new technologies (p. 12, my translation).⁸⁴

It's interesting to note Guattari's prediction that computer technologies would bring new channels of expression to those who have no ties to media organizations. In fact, podcasting fulfills this expectation when it comes to the independent production of sound content. Although the necessary computer technology and know-how is not accessible to every Brazilian citizen, the cost is much lower than that needed to set up a radio station. Given the minimum conditions for Internet access, it's easy to conduct interviews and debates with people anywhere in the world. Programs called Voice over IP (VoIP), such as

⁸² In the original in Portuguese: "que dá às rádios livres um aspecto ruidoso, capaz de desconectar o ouvinte eventual, não é tanto a precariedade dos meios técnicos, mas principalmente o seu empenho em dar a palavra a interlocutores 'menores', fazer falar acentos locais e sotaques plebeus, em contraposição ao recitativo uniforme e padronizado das emissoras convencionais"

⁸³ In the original in Portuguese: "não poderão jamais se exprimir de maneira convincente nas mídias oficiais".

⁸⁴ In the original in Portuguese: "Isso quer dizer que as rádios livres não são nada em si mesmas. Elas só tomam seu sentido como componentes de agenciamentos coletivos de expressão de amplitude mais ou menos grande. Elas deverão se contentar em cobrir pequenos territórios; poderão igualmente pretender entrar em concorrência, através de redes, com as grandes mídias: a questão fica aberta. O que, no meu modo de ver, a resolverá é a evolução das novas tecnologias".

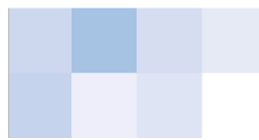
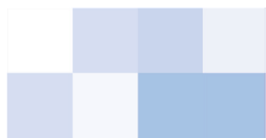
Skype, allow conversations to be recorded via voice at no extra cost.

While Guattari believes that expression through free media can cover small territories, with podcasting digital audio files can be accessed and listened to from anywhere. Unlike electromagnetic transmissions on AM or FM, physical proximity between the transmitter and receiver is not a necessary condition.

But what impact can podcasting have as a micromedia if, despite its wide geographical reach via the Internet, the number of listeners is quite small compared to mass media? The social effects of podcasting can gain strength through the systemic interconnection of small networks. In the same way as blogs, a podcaster can comment on what has been said in another program they have listened to. In addition, the content of podcasts can be quoted and debated in other forms of digital micromedia, such as blogs. This is how, for example, some independent artists and bands end up gaining notoriety after having their music broadcast on different podcasts, without ever having been played on commercial radio stations. Instead of simultaneous distribution to thousands or millions of people tuned in at the same time, podcasts reach small but interconnected audiences.

By interacting in other interfaces (emails, blogs, forums, chat rooms, discussion lists, etc.), these internet users contribute to the dissemination and debate of what has been read/listened to elsewhere on the web. The dispersion and capillarity of this horizontal interaction on the Internet favours the spread of information, amplifying the debate in terms of its scope and content (sometimes adding new elements or even suppressing others). In other words, this network effect – similar to "word of mouth" in face-to-face interaction – arises as nodes from a certain network participate in other networks. When they take information from one network to another, links are established between these smaller groups. This interconnection of sub-systems can produce major social effects, without the control or orchestration of the state or the mainstream media.

Music and copyright



Besides empowering amateur presenters and interviewers who wouldn't have space on radio stations, podcasting is also strengthening independent music production. As well as offering a way of breaking away from the limits imposed by government concessions and state control over the use of the electromagnetic wave spectrum, podcasting is also providing alternatives for overcoming the power exercised by the recording industry.

Record companies are increasingly investing in music for mass, immediate and disposable consumption; they charge a lot for CDs; they tightly control copyright (limiting the broadcasting of songs and even personal backups); and they fight against peer-to-peer (P2P) networks. This exercise of power and regulation has served as a stimulus for the emergence of new forms of copyright, music distribution and communities in defence of independent production.

Lawrence Lessig (2002), in his discussion on the future of ideas in a connected world, warns that record companies, publishers and the courts can damage their own innovative work by imposing numerous limitations on the exchange of information on the web. The author, however, goes beyond the opposition between copyright and copyleft (created and defended by the GNU Linux community). In fact, the issue of copyright goes beyond "control everything" or "free everything". The Creative Commons project itself, endorsed by Lessig, complexifies the issue. The project's website⁸⁵ facilitates the search and exchange of creative products and offers eleven types of licenses (including free distribution and even remix rights), which allow the author to keep some rights for themselves, while releasing others to anyone in different situations.

Reception conditions

Interaction with sound content differs greatly from conventional broadcasting to podcasting. Firstly, access to the programs must be considered. In the first process, after tuning into a station on the dial, the listener can only hear the program linearly. Yes, they can change stations whenever they want. But

⁸⁵ <http://www.creativecommons.org/>

as soon as they choose a new frequency, the program cannot be interrupted. In other words, there is synchrony between production, transmission and listening⁸⁶. In podcasting, however, there is no such temporal coincidence⁸⁷. Furthermore, as will be seen shortly, it is possible to change the flow of the program.

The synchrony (or lack thereof) between production, transmission/publication and listening depends on the technology used. As Priestman (2002) reminds us, the Internet is a two-way technology, while broadcasting is one-way. The author comments that initially this difference may not seem to make a difference: "After all, big or small, a receiving audience is a receiving audience" (p. 136). However, according to the author, the closer you look, the more you realize how the relationship between production and audience changes. While broadcasting transmits the same content from a broadcasting center to the entire masses, on the web, internet users have to search for the information they want. This is the difference between what are known as push technologies (content is "pushed" to the audience) and pull technologies (content is "pulled" by the audience).

So broadcasting is predominantly a 'push' technology in the sense that the producer determines the content which fits the schedules that are offered to — pushed towards — the listener in real time. Beyond a general understanding of what their target audience likes, periodically supported by some specific audience research here and some received feedback there, station managers, schedulers and producers do not need to know much about the precise individual preferences of their audience. Only after the event do they assess how many they have succeeded in appealing to by examining their ratings. The Internet started out entirely as a 'pull' technology in the sense that content was put onto the system to be pulled off as and when the receiver needed it. The power of the search engine enabled the receiver to be the more active decision maker in arranging what to receive and when to receive it. (Priestman, 2002, p.136-137)⁸⁸

⁸⁶ On radio, the synchrony between production and listening only doesn't occur when the program is not a live broadcast.

⁸⁷ As we have seen, the so-called Web Radios offer live transmission of sound content on the Internet (streaming). However, what differentiates podcasting is precisely the RSS feature. In other words, asynchrony is part of the definition of podcasting.

⁸⁸ So broadcasting is predominantly a "push" technology in the sense that a producer determines the content that fits into the programming that is offered - pushed - to the listener in real time. Apart from a general understanding of what their audiences are like, with periodic support from specific audience research here and some feedback there,

Web radio requires internet users to go to the appropriate site to choose what they want to listen to. In other words, it's not enough to just plug in a device to listen, you have to search for content and make choices from the available offers. Priestman (2002) highlights two factors that emerge with web radio. Faced with dissatisfaction with radio programming, the audience is more dedicated to searching for news or content that is not available on mainstream radio. On the other hand, the audience has a more dispersive behaviour, due to the fact that: the computer demands more attention than the radio receiver; web radio offers more options and sometimes takes some time to start playing the streaming sounds (or even interrupts the signal, due to network congestion).

From a fleeting medium like conventional radio, argues Cebrián Herreros (2001, p. 73), we move on to a permanent offer. And more, repetition becomes possible.

Each listener has the capacity to choose the time and place of listening and to capture the content they want, regardless of the programmatic organization proposed by the broadcaster. The listener chooses the fragment, self-programs the information. It goes from information and broadcast content to stored content waiting for the listeners to choose⁸⁹.

Cebrián Herreros adds that web radio combines broadcasting with search.

Within this context, Priestman (2002) points to a hybridization of the push and pull models. The hybrid model is precisely the one used by podcasting. First of all, internet users find out about or search for the podcasts that interest them. It is common for podcasters to publish two addresses on the web: a) the address of the website (usually a blog) where the podcast information and links to each

station managers, programmers and producers don't need to know much about their audience's individual preferences. Only after the event do they gauge how successful their appeals were by examining audience research. The Internet began entirely as a "pull" technology in the sense that content is put into the system to be pulled out when the recipient needs it. The power of the search engine has empowered the receiver to make decisions about what to receive and when.

⁸⁹ In the original in Spanish: "Cada oyente tiene capacidad para elegir el momento y el lugar de audición y para captar el contenido que desee, con independencia de la organización programática que haya propuesto la emisora. El oyente elige el fragmento, se autoprograma la información. Se pasa de la información y de los contenidos difundidos a los contenidos almacenados en espera de que los oyentes elijan".

episode are published; b) the address of the RSS feed⁹⁰. As soon as the latter address is registered with an aggregator software, the internet user no longer needs to visit the first URL (which points to the podcast's website) to check if there are any new episodes to download. The aggregator software itself periodically checks (through a process called pinging) and automatically "downloads" recent episodes. On the one hand, this implies a limit to listening, as you can't listen to a program until you have the entire file⁹¹. While radio programs and web radio⁹² are fleeting and each program is consumed synchronously with the broadcast, in podcasting the program is not "lost" as soon as it is broadcast and listened to. In the latter process, the entire file must be possessed before it can be listened to. On radio, listening to the end of a program takes place simultaneously with the end of its production (in live cases) and transmission. In podcasting, the end of a program is already possessed, it already exists in its entirety, even when listening begins.

On the other hand, this feature offers a new form of interaction with sound media. A listener can store various programs on their computer, MP3 player, cell phone or handheld to listen to at a time that suits them. In contrast to the radio, on a bus trip, for example, there is no problem of tuning in and you can only listen to what interests you, since the listener is carrying with them all the programs they have chosen in advance. From tuning in you move on to stocking up on programs.

Another radical difference in interacting with these audio programs – which updates the way we listen, but even goes beyond mere listening – is how we use our hands and eyes. As each episode is stored in its entirety, it is possible to break away from a program, altering and even interrupting the flow of sound

⁹⁰ Some podcasters even publish up to three different feeds for each podcast: a regular version; an enhanced version (divided into chapters and with images associated with them); and a "lo-fi" version, whose file is smaller due to its lower sound quality, more suitable for listening on cell phones and handhelds and/or for people who have a slow Internet connection (as the smaller file makes it easier to download).

⁹¹ In fact, the program can be listened to directly from the website, as soon as the file is uploaded, but the audience usually prefers to use the procedure described.

⁹² Many web radio programs are already complete on the server, but they are listened to while streaming.

content – something that is impossible when listening to a certain radio station. While listening to a program, you can use the pause, forward and rewind buttons. So you don't have to listen to a program all at once. You can interrupt it and continue at a more convenient time.

The forward and rewind actions can be carried out in different ways. On a computer, you can click on the exact point in the program you want to listen to, via the graphical representation of the interface. On an MP3 player you can use the shuttle function to fast-forward or rewind to a certain point in the program. In addition, so-called "enhanced" podcasts, which use an Apple audio format other than the conventional MP3, allow the podcaster to divide their program into chapters. When the listener is not interested in a subject, for example, or when they want quick access to a particular segment of the episode, they can use the forward or reverse keys to jump directly to the desired chapter. This feature divides up a program according to segments, themes and songs. In this way, a form of audio "navigation" is offered, breaking up the linear flow of sound content.

The chapters of enhanced podcasts also allow for a multimedia and hypertextual experience, which radically contrasts with broadcasting. Each chapter can have a different image associated with it⁹³. These images can be viewed on player software such as iTunes and on MP3 players⁹⁴ with a colour display such as iPod. Each image offers the potential to visually illustrate the sound information. In addition, every chapter can display a link to a web page. For example, an interview about Greenpeace could feature an image of its logo and a link to the organization's website. Those listening to the podcast on a computer or handheld with an Internet connection can click on the link so that the browser opens with the Greenpeace website. Thus, while listening to the program, it is possible to browse the site for new information.

With these features, podcasting goes beyond simple listening by offering images, as well as chapters and links for navigation within the program and on

⁹³ Conventional ("unimproved") podcasts may only have an initial image.

⁹⁴ With the possibility of playing different audio formats and displaying images and even videos, the label "MP3 players" already shows its limitations.

the web. This breaks the linearity of listening and offers hypertext and multimedia resources.

Beyond emission

According to Charaudeau (2003, p. 114, my translation), the interactive process established between production and reception is a relationship without exchange, since the information is presented as if it were in a museum. On the other hand, he adds that "The media strive in vain to resort to so-called 'interactive' techniques, but this does not produce dialog or exchange, but only a simulacrum"⁹⁵.

The reference to radio as a "broadcaster", according to Cebrián Herreros (2001), shows its deficiency in being a recipient of audience contributions. The interaction resources that some broadcasters have been using, such as the possibility of choosing alternatives, are not a form of authentic dialog. According to the author, they are just a low level of interaction. The author calls for the transformation of broadcasting into radio communication. However, he recognizes the difficulty of this change in radio's communication model. "Free radio experimented at their time with counter-radio and programming based on audience intervention, but once that stage was over, only remnants remained. Traditional radio absorbed the experience by opening up some programs to listeners' telephone interactions, although always under the broadcaster's control"⁹⁶ (p. 118, my translation). The author recognizes the need to allow participants in the process to search for the content that interests them (in its entirety or just parts), at the moment they want, wherever they are. The ultimate point of interaction would be the possibility of dialog. Not just the listener with the producers, but an authentic exchange of information between all the

⁹⁵ In the original in Spanish: "Los medios se esfuerzan en vano por recurrir a las técnicas denominadas 'interactivas', pero no por eso se produce diálogo ni intercambio, sino sólo un simulacro".

⁹⁶ In the original in Spanish: "Lo experimentaron las radios libres en su momento con la contrarradio y la programación a partir de las intervenciones de la audiencia, pero superada la etapa apenas quedan restos. La radio tradicional absorbió la experiencia con la apertura de algunos programas a las interacciones telefónicas de los oyentes, aunque siempre bajo control de la emisora".

participants in the communication process.

Cebrián Herreros finds on the Internet the conditions for fulfilling this expectation (which has long been called for in mediated communication studies). On the web, audiences are fragmented, moving away from the traditional mass process, to the extreme of what he calls "personalized radio"⁹⁷.

Each listener self-programs what they want to listen to. The question lies in the scope that a user has when they choose songs or records from a music catalogue or when they select an interview broadcast a while ago by a broadcaster. Are they self-programming or are they self-constructing their broadcaster or are they simply dedicated to receiving information?⁹⁸ (CEBRIÁN HERREROS, 2001, p. 119, my translation).

Although the pull technology of web radios is an important change in the interactive process, as far as the listener's relationship with the content is concerned, the interaction between all the subjects of the process remains limited.

But what is the dialogic potential of the podcasting process? This phenomenon, we insist, cannot be approached simply as a facilitated form of broadcasting. This perspective still carries the strong legacy of the transmissionist model, which portrays communication in a linear and polarized way (emission→message→medium→reception). As we know, communication goes beyond the process of sending signals. In order to understand the interactive process, it is necessary to look at what goes on before and beyond the emission. Otherwise, it would be enough to study communication from the point of view of the sending apparatus, the technology used.

For Charaudeau (2003), the informational formula is an objective and symmetrical model, which sees communication as a closed process, in which the

⁹⁷ Even so, Cebrián Herreros (2001, p.119) asks: "How far does the concept of radio go within these innovations?". This article takes the view that, in fact, we are dealing with new media, which motivate other interactive relationships. In other words, broadcasting can no longer be recognized here. In other words, neither web radio (despite the convention of the term) nor podcasting can be considered forms of radio.

⁹⁸ In the original in Spanish: "Cada oyente se autoprograma lo que desea escuchar. La cuestión radica en el alcance que tiene cuando un usuario elige las canciones o los discos de un catálogo musical o cuando selecciona una entrevista emitida tiempo atrás por una emisora. ¿Está autoprogramándose o está autoconstruyendo su emisora o simplemente se dedica a recibir información?"

sender only encodes and the receiver only decodes. It therefore eliminates the subjective factors of human exchange and presents the communication process as the mere transmission of signs. For the author, information does not exist on its own, independent of human action. "Information constructs knowledge in the form of discourse and, like all discourse, it depends on the field of knowledge it deals with, the situation of enunciation in which it is inserted and the device in which it circulates" (p. 44, author's translation). As communication is not a homogeneous process, it is in alterity that self-consciousness emerges when differentiating oneself from the other.

Yet, there is no denying the heuristic nature of the transmissionist model of information and its variables. Most studies of mass communication are inspired by this model. Given the "top-down" structure of the mass process and the difficulty (or even impossibility) of the audience interfering in programming, Shannon and Weaver's model (developed for the study of technological aspects of telephone signal transmission) did indeed offer contributions to the study of mass media. On the other hand, this model quickly showed its limitations, even more so for the study of interpersonal and group communication. And if the Internet allows "one-to-one" and "all-to-all" conversation, how can we continue to use the vertical transmissionist formula to study these dialogical and horizontal processes?

Podcasting cannot therefore be explained simply as the democratization of broadcasting. Although this approach is rooted in the ideals of "democratization of the media" and "freedom", this postulate turns out to be pamphleteering and limited. This is not to deny the potential of podcasting for the expression of citizens who do not have access to the mainstream media. However, the following clarifications are necessary to avoid reducing podcasting to a mere simplification of publishing.

Firstly, media processes have never been totally imprisoned in mass organizations. Different forms of alternative media – from fanzines and alternative newspapers to free radio and free TV (also called pirate radio and pirate TV) – have always existed, even under the strongest authoritarian regimes.

In other words, it's not just blogs and podcasts that have given citizens a voice.

Secondly, the emphasis on simply broadcasting maintains the polarized view of the communication process and focuses on the "sender pole". It should be remembered that not every interactor wants to have their own podcast. In other words, the potential for publishing and distributing audio programs does not interest all internet users. Most of those who come into contact with podcasting prefer only to subscribe to podcasts. As we have seen, interacting with these programs is innovative in itself, as you can navigate through the sound content, breaking its linearity, and access links and images associated with each chapter.

But despite the criticism of the mass radio model, isn't podcasting also based on a vertical model? In fact, as there is no coincidence in time between the production of a podcast and its listening, there is no synchronous meeting between podcasters and audience. And since the audience doesn't know exactly when each program will be recorded, they can't call in (via telephone or VoIP software) or intervene via chat or instant messenger. On the other hand, it is common for podcasters to encourage their listeners to send emails and voice messages via audio files⁹⁹. These messages, as well as comments posted on the podcast blog, are usually answered by the podcaster in the following episodes. As well as commenting on previous shows, listeners also send suggestions for future episodes.

Strictly speaking, radio listeners have always been able to send letters, making requests for music and suggestions. In many programs, they can even "get on the air" in a live program by calling in. However, as we know, only a small proportion of listeners are actually heard, passing through the filters of each broadcaster's interests. And those programs that allow listeners to participate live usually offer only a few seconds to participants who have managed to complete the phone call. On the other hand, as podcast audiences are small, listeners' interventions are usually reproduced and responded to by the podcasters.

⁹⁹ Audio messages also add dynamism to the programs and contributes to the podcast's sound variety.

In any case, does podcasting still fall short of Brecht and Enzensberger's expectations for media forms that enable dialog and mutual influence, going beyond the mere dissemination of content? At the beginning of the 1930s, Bertold Brecht argued that broadcasting should be transformed from a distribution device into a communication device. This way, the listener would no longer be limited to listening, but could also speak; they would no longer be isolated, but connected.

Radio would be the most fabulous means of communication imaginable in public life, a fantastic channeling system. That is, it would be if it were not only capable of broadcasting, but also of receiving; therefore, if it were able not only to make itself heard by the listener, but also to put itself in communication with him¹⁰⁰ (2005, p. 42, my translation).

Enzensberger (1978, p. 45), for his part, believes that neither radio nor TV can be considered means of communication, as they make it impossible for the so-called transmitters and receivers to influence each other:

The technical differentiation between transmitter and receiver reflects the social division of labour between producers and consumers, a division that takes on a special political significance in the field of the consciousness industry. Ultimately, it is based on the essential contradiction between the dominant and dominated classes (i.e. between monopoly capital and bureaucracy on the one hand, and the dependent masses on the other).¹⁰¹

The interactive surpassing of podcasting in relation to broadcasting occurs in its openness to debate. This dialogical relationship does not take place in the asynchronous space of the episodes, but on the podcast's blog. With rare exceptions, each podcast has a linked blog, which not only offers information about the podcasters, a description and archives of each episode, but also a comments window. The podcasters even try to encourage audience participation in this space. There, any interactor can disagree, offer suggestions and criticisms

¹⁰⁰ In the original in Portuguese: "O rádio seria o mais fabuloso meio de comunicação imaginável na vida pública, um fantástico sistema de canalização. Isto é, seria se não somente fosse capaz de emitir, como também de receber; portanto, se conseguisse não apenas se fazer escutar pelo ouvinte, mas também pôr-se em comunicação com ele".

¹⁰¹ In the original in Portuguese: "A diferenciação técnica entre emissor e receptor reflete a divisão social do trabalho entre produtores e consumidores, divisão esta que adquire uma significação política especial no campo da indústria da consciência. Em última análise, ela está baseada na contradição essencial entre as classes dominantes e as dominadas (isto é, entre o capital e a burocracia monopolistas de um lado, e as massas dependentes do outro)."

and debate the subjects covered in the episodes. From merely reactive interaction with the podcast file, one can move on to mutual interactions (Primo, 2004, 1998).

Once the possibility of conversation, of computer-mediated interpersonal interaction, has been achieved, the sense of a mass audience, characteristic of broadcasting (CEBRIÁN HERREROS, 2001), falls apart¹⁰². However, someone could still insist that in mass communication the interaction between the instances of reception could be heard via letters, phone calls or audience surveys. But, as has already been discussed, these interactions are rare and even controlled by the production crew. Furthermore, and above all, the masses don't interact with each other. In the communicative process of podcasting, on the other hand, there is the possibility of dialog between all the participants during the asynchronous meeting on the blog.

In this sense, the opposition between senders and receivers no longer makes sense. This is not a polarized relationship, but rather a dialogical process between the interactants, where through the negotiation of meanings each participant has an impact on the other's behaviour. As well as needing to take the other into account in order to improve their arguments in the debate, each interactant ends up revising (improving, transforming, altering, strengthening) their own positions. These interactions have a recursive impact not only on the participants in the process, but also on the relationship itself. This relationship is "invented" during the interaction. In other words, it's not about transmitting closed packages, but about creating the process as it happens.

However, this does not mean that power relations are erased. Every communicative process involves power negotiations. The podcaster, in addition to his privileged position, has the option of deleting entries in the comments window. Yet, it is important to highlight that through the space for the intervention of any interactant, for the debate on programs and related topics, the dialogical media process comes to fruition. The traditional distance between producers and

¹⁰² Cebrián Herreros, in this quote, was not referring to podcasting, as his book predates the emergence of this media process. However, this statement, referring to the new interactive possibilities on the web, is pertinent to the argument developed here.

audience is overcome. The former loses the protection of that barrier since all speech can be debated on the blog. Through this closer interaction, the reciprocal influence has repercussions on subsequent programs. In this way, programs can increasingly reflect the interests of subscribers. In podcasts, which have the characteristics of micro-media, producers can get to know their audience more intimately. This is a situation that differentiates podcasts from traditional radio programs, which are based on research and marketing interests, seeking to increase the number of listeners/consumers by evaluating the average taste of this audience.

But doesn't mutual interaction on the blog go beyond podcasting? It is understood here that podcasting is not limited to the distribution of audio files and RSS feeds. The interactions that take place on podcast blogs are also part of podcasting as a process, as a media phenomenon. In this sense, this article seeks to investigate the complexity of technologically mediated interactions, without focusing only on the medium, on the technology itself. In short, podcasting is bigger than the podcast, the program per se.

Opening dialog by linking the podcast to the blog does not, of course, mean that the comments window linked to each episode will always bring lively debates. The availability of these resources does not in itself guarantee that the interactants will want to talk or that they will have something to say. Some podcasts are more controversial, others mobilize a virtual community or have a very participative group that keeps the conversations going. On the other hand, not every podcast attracts as much interest or has the potential to mobilize. Some podcasters may even have a large but silent audience. However, this does not mean that they are media products without any impact. Finally, we want to emphasize that the combination of podcasts and blogs offers the media process a space for dialogue. The debates, however, vary qualitatively depending on who participates and how.

Conclusion

This article sought not only to discuss the impact of podcasting on computer-mediated interactions, but also to debate this phenomenon beyond the facilitated possibility of creating and distributing audio files. From this reflection, it was possible to observe the process of remediation between podcasting and broadcasting, a spiral movement that both separates and implies them. Even though podcasting is not radio, elements are inherited from the latter to constitute the former. It is possible to foresee that broadcasting will also be updated by this new digital form of audio production, perhaps something akin to the impact of independent video in the 1980s on the development of television language.

This article also sought to observe the process of remediation between podcasting and broadcasting – a spiral movement that both separates and implies them. Even though podcasting is not radio, it inherits elements from the latter for the constitution of the former. It is possible to foresee that broadcasting will also be updated by this new digital form of audio production, perhaps something akin to the impact of independent video in the 1980s on the development of television language.

In fact, podcasting goes beyond audio, incorporating images and hypertext navigation. In other words, more than just listening, we also need to discuss how the audience uses their hands and eyes during the process. So, does the term "listener" still make sense in this situation?

When it comes to producing podcasts, this article has insisted that we need to move beyond the idea of trivialized broadcasting. The communication process is much bigger than simple transmission. Furthermore, the possibility of publishing in cyberspace is not simply an end in itself. The lack of horizontal exchange discourages the creation of podcasters and bloggers. In other words, the egoic pleasure of publishing on the web is not enough.

In this sense, we have tried to draw attention to the fact that the phenomenon of podcasting goes beyond the podcast. In other words, more than a new relationship with the media product, linking podcasts to a blog opens up the process to dialogic exchanges. These conversations between interactants

end up revealing even more the information model that polarizes broadcasters on one side and receivers on the other.

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