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FROM SHARING TO STREAMING: TECHNOLOGY, REGULATION AND AGENCY IN THE DIGITAL PHONOGRAPHIC INDUSTRY FROM 1996 TO THE PRESENT DAY

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Introduction

This paper aims to compare, from the perspective of political economy of communication and philosophy of technology, two distinct historical periods of music consumption via the Internet (from 1996 to 2007 and from 2007 to today) considering the technological, social, aesthetic and authorial changes that have occurred over the last thirty-three years. This broad period begins with the Telecommunications Act of 1996, a true legal milestone that marks the beginning of a considerable deregulation of the Internet. With this in mind, we can divide this period in two eras: The Era of “new media” (Manovich, 2001) and “non market sharing” (Aigrain, 2012), which runs from about 1996 to 2007 and the Era of “platform capitalism” (Srnicek, 2018), which gradually starts that year and extends to today. The launch date of the iPhone, in June 2007 can be seen as a turning point towards an increasingly “assisted” humanity (Sadin, 2016).

The two periods

Also, Changes in regulatory frameworks (the failed attempts at PIPA, SOPA and ACTA, corporate attempts that generated repudiation from legislators and users alike) and the media (the increasing concentration that occurred in the recording industry and led, for example, to the emergence of Vevo in 2009) also considerably changed the landscape of the Digital Recording Industry (De Marchi, 2023; Schmit, 2013; Carrier, 2013).

The radical difference between these two periods, we believe, lies in the level of agency the user has with respect to the musical object. Their ability to transform, edit,

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remix, share and store music mutated considerably over the last thirty-three years. Citizens went from discovering the possibility of sharing and manipulating files with a certain ease and lightness - thanks to hardware and software constantly developing in storage and processing capacity - to seeing their relationship with the cultural object (the song) drastically reduced. Music streaming platforms, with their attractive interfaces and convenient commands, turned out to be the best ally of record labels in their fight to recover an audience that had made the free downloading and distribution of audio files a routine.

In the first era, the deregulation of Internet, which freed it from legal surveillance regarding rights such as Copyright, the entire planet (but, of course, firstly Europe and USA) began to access an ever-increasing volume of audio files, thanks to an innovative format, the *.mp3 file format*, that managed to reproduce audio with acceptable fidelity without being excessively heavy in terms of storage. This “invention, designed to be enjoyed in noisy contexts, with relaxed and distracted listening, while running other programs on the computer or traveling from one place to another (Sterne, 2006) not only enabled new forms of listening but also new ways of socializing and sharing (Bull, 2005).

The synergy between three technologies, Mp3, Winamp and P2P (De Marchi, 2023) was what allowed Internet users to appropriate cultural goods whose circulation was jealously guarded by record labels and the media. This gradual shift in user autonomy incurred in the “non-market sharing” (Aigrain, 2012), a legitimate, useful and even beneficial practice for the preservation and enrichment of culture. This practice “of making a file available to others immediately, without monetary exchange,” allowed for an enormous flow of information, in a volume unprecedented in the history of culture, which was and can be very useful for cultural preservation (since everything that can be digitized can be shared) and cultural diversity (since the sharing initiative makes different archives available according to different areas of origin).

This was the context of the so called “era of the digital condition” (Sadin, 2013): the era in which most of citizens’ interactions began to be framed and mediated by the use of the Internet, listening to audio files was inseparable from the idea of sharing them, without necessarily requiring financial compensation (that would be the difference between “sharing” and “piracy”). In the following years, up until 2007, the prosecution of individuals proved not only unsuccessful, but also costly in economic and moral terms for most Copyright holders.

Platforms started implementing automated takedown systems which affected mostly YouTube, and started thinking about migrating to the digital ecosystem. Their concern was, as always, to mitigate the effect caused by non market sharing, and aimed to end it for good. Vevo was one of their first achievements, as a platform to upload and manage new music videos, and allowed them to overcome the failures of the music sites they tried to launch.

Technical disobedience

Music streaming platforms, with their attractive interfaces and convenient commands, turned out to be the best ally of record labels in their fight to recover an audience that had made the *non market sharing* of audio files a routine. Platformization is a double Edge sword. It provided a comfortable and seamless user experience of music

consumption but also allowed corporations to acquire a way of learning about those users/customers for the sake of optimizing the recommendation algorithms, imposing sponsored content and fighting for user engagement (through tailored playlists, gamification and mediated memories), also protecting Copyright holders (which are not usually the creators). Algorithms thrive in the Extractive Rationality (Mejías and Couldry, 2019), an imposed common sense that claims that the extracted data is not itself personal; data is considered a “natural resource”, something that “is there,” ready to be exploited. Data is used to track consumer trends and desires, claiming it can anticipate the individuals’ subjectivities in what Rouvroy and Berns call Algorithmic Governmentality (2018).

Platforms use a central architecture, use opaque methods and programs, they seek profit maximization, aim to expand their network effect, and tend toward monopolization (Srnicsek, 2018). This inevitably creates an increasingly recognizable bias, typical of technologies developed in the West, directly driven by data capture and monetization, corresponding to a Western cosmotechnics_(Hui, 2022). This is the consequence of an ongoing and ever intensified Internet governance established by “structures of knowledge that shape the world”: internet regulations are produced in the Global North, as are the platforms that enforce them. Both the laws and the way platforms are designed and experienced are derived from this cosmotechnics in a colonial manner (Ali, 2018).

Faced with a cosmotechnics that imposes platformization as the only alternative to cultural access, “piracy” reveals itself as a “field of struggle and expression of subjectivity” (Messias, 2015), as it implies the reappropriation, by the subject, of an agency and a relationship with the digital objects that were stolen from them. “Non-market sharing”, although it was equated with piracy and persecuted as such, oday does not exist as a generalizable and legitimate alternative for accessing culture or technology, due to its riskiness. It can still be achieved by claiming certain basic rights of cultural consumption (“First Sale Doctrine”), however it will imply legal battles and user risk. If the legitimate exercise of access to free culture is not permitted, along with fair compensation for artists, citizens will exercise this right in their own way, in the form of “technical disobedience,” like the “epistemic disobedience” advocated by Walter Mignolo (2008).

References

BULL, Michael. “No Dead Air! The iPod and the Culture of Mobile Listening”, en *Leisure Studies*, Vol. 24, No. 4, 343–355. 2005.

CARRIER, Michael. “SOPA, PIPA, ACTA, TPP: An Alphabet Soup of Innovation-Stifling Copyright Legislation and Agreements”, *Northwestern Journal of Technology and Intellectual Property*, Vol. 11, No. 2, 2013.

DE MARCHI, Leonardo, *A indústria fonográfica digital: Formacao, lógica e tendencias*. Rio de Janeiro: Mauad, 2023.

FAUSTINO, Deivison; LIPPOLD, Walter. *Colonialismo digital: por uma crítica hackerfanoniana*. São Paulo: Boitempo, 2023.

HARAWAY, Donna. Saberes Localizados: a questão da ciência para o feminismo e o privilégio da perspectiva parcial. Cadernos Pagu, Campinas, v. 5, n. 1, p. 7-41, jan.1995.

HUI, Yuk. Fragmentar el futuro. Caja Negra, Buenos Aires, 2021.

HUI, Yuk. The Question concerning technology in China: an essay in Cosmotechnics. Falmouth: Urbanomic Media, 2016.

MANOVICH, Lev. “Cómo se volvieron nuevos los medios” y “La interfaz”, en El lenguaje de los nuevos medios de comunicación. La imagen en la era digital. Barcelona: Paidós. 2001.

MESSIAS, José, “Notas sobre a pirataria de games no Brasil: inclusão (digital) dos pobres e resistência”, intexto, Porto Alegre: UFRGS, n. 33, p. 154-173, maio/ago. 2015.

MIGNOLO, Walter D. Desobediência epistêmica: a opção descolonial e o significado de identidade em política. Cadernos de Letras da UFF – Dossiê: Literatura, língua e identidade, no 34, p. 287-324, 2008

SADIN, Eric, La humanidad aumentada, Caja Negra, Buenos Aires, 2016.

SCHMITZ, Sandra, The US SOPA and PIPA – a European perspective. International Review of Law, Computers and Technology, Volume 27, Issue 1-2, P. 213 - 229

SRNICEK, Nick. Capitalismo de plataformas. Caja Negra: Buenos Aires, 2018.

STERNE, Jonathan, “The mp3 as cultural artifact”, en new media & society, Vol8(5), pp. 825–842. 2006.