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# FROM CONVERGENCE TO DATAFICATION OF CYBER JOURNALISM IN THE AMAZON:

a focus on OLiberal.com and DOL



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**ABSTRACT** – This work aims to understand the main properties of cyber journalism on two news portals from the Brazilian Amazon: OLiberal.com and DOL. The qualitative research consisted of direct observation of the products, semi-structured interviews conducted with the executive editors of these online newspapers, and description and analysis of data. The results point to four properties that make up the narrative of this article (convergence processes, mobility, platformization, and datafication) and show that these media outlets have invested in analyzing metrics and producing news for social networking sites and search engines, following the global logic of large technology companies and resulting in changes to the structure of newsrooms, production routines, professional culture, and journalistic products in convergent scenarios.

**Keywords:** Cyber journalism in the Amazon. Convergence. Mobility. Platformization. Datafication.

## DA CONVERGÊNCIA À DATAFICAÇÃO DO CIBERJORNALISMO NA AMAZÔNIA: OLiberal.com e DOL em foco

**RESUMO** – Este trabalho objetiva compreender as principais propriedades do ciberjornalismo em dois portais de notícias da Amazônia Brasileira: OLiberal.com e DOL. A pesquisa qualitativa foi feita por meio de observação direta dos produtos e entrevistas semiestruturadas com os editores executivos desses ciberjornais; descrição e análise dos dados. Os resultados apontam quatro propriedades, as quais conduziram a narrativa do artigo (processos de convergência, mobilidade, plataformização e dataficação) e indicam que esses veículos têm investido em análise de métricas e em produção de notícias para sites de redes sociais e buscadores, submetendo-se à lógica global das grandes empresas de tecnologia e acarretando transformações na estrutura das redações, nas rotinas produtivas, na cultura profissional e nos produtos jornalísticos em cenários convergentes. **Palavras-chave:** Ciberjornalismo na Amazônia. Convergência. Mobilidade. Plataformização. Dataficação.

## DE LA CONVERGENCIA A LA DATAFICACIÓN DEL CIBERPERIODISMO EN LA AMAZONÍA: OLiberal.com y DOL en foco

**RESUMEN** – Este trabajo tiene como objetivo comprender las principales propiedades del ciberperiodismo en dos portales de noticias de Amazonía Brasileña: OLiberal.com y DOL. La investigación cualitativa se realizó en dos etapas: observación directa de los productos y entrevistas semiestruturadas a los editores ejecutivos de estos cibermedios; descripción y análisis de datos. Los resultados apuntan a propiedades actuales que guiaron la narrativa del artículo (procesos de convergencia, movilidad, plataformización y dataficación) e indican que los medios de comunicación invierten en análisis de métricas y producción de noticias para sitios de redes sociales y buscadores, sometándose a la lógica global de las grandes empresas tecnológicas y propiciando transformaciones en la estructura de las redacciones, las rutinas de producción, la cultura profesional y en los productos periodísticos en escenarios convergentes. **Palabras clave:** Ciberperiodismo en la Amazonia. Convergencia. Movilidad. Plataformización. Dataficación.

### 1 Introduction

Cyber journalism has existed in the state of Pará for almost three decades. During this time, the newspapers O Liberal and Diário do Pará (which had already built a long-standing rapport with the public) began to invest in the production and distribution of news on/with digital devices, doing so through portals, applications, and profiles on social media platforms, in this case OLiberal.com<sup>1</sup> and DOL<sup>2</sup>, respectively. Both media outlets have their headquarters situated in the city of Belém (PA), one of the main capital cities of the Brazilian Amazon. These publications have recently switched to

an integrated newsroom in order to keep up with the convergent processes that characterize cyber journalism on both national and international levels. These processes are mostly affected by the logic of large big tech companies (Google, Meta, Apple, Amazon, and Microsoft) that shape the digital economy through platformization. They affect the practices, products, languages, and business models of news organizations, both globally and locally. In this paper, we focus on the OLiberal.com and DOL portals in an attempt to understand their main online journalistic properties. For this, our qualitative investigation was divided into two stages based on the methodological model proposed by Lopes (2010).

The first stage involved data collection and was carried out through direct observation and semi-structured interviews. In order to supplement the interview script and better understand the empirical objects, we directly observed the portals, applications, and social media profiles of these two online newspapers during March and April 2022, and again in December 2023. This technique makes important research contributions (Martino, 2018). This allowed us to identify the configurations and resources used by these two online newspapers. The semi-structured interview, on the other hand, has the advantage of obtaining data that cannot be found in documentary sources. This technique begins by writing a set of questions, however, “it opens up space for the interviewee to add elements that were not previously defined. [...] This adds to the wealth of information being obtained” (Martino, 2018, n.p.).

Two in-person semi-structured interviews were conducted in the newsrooms of the online newspapers we analyzed. The first interview was held on April 4, 2022, with Carlos Fellip Santos Araújo, the executive editor of OLiberal.com, while the second was held on April 5, 2022, with Mauro Mendonça Vieira Neto, the executive editor of DOL<sup>3</sup>. Both interviewees were selected due to the positions and responsibilities they hold as managers of the day-to-day operations of integrated newsrooms, and their monitoring of the changes and actions of each online newspaper. We started with an initial set of ten questions related to the practices, products, languages, and business models of cyber journalism.

The second stage of the research involved description and analysis, which helped understand the main properties of OLiberal.com and DOL cyber journalism. The description is the first stage of the analysis (Lopes, 2010) and consists of organizing and tabulating

the collected data, followed by the construction of empirical objects and presenting their main characteristics. After direct observation and semi-structured interviews, the data was organized into the following four properties used to guide the description of the data: convergence processes, mobility, platformization, and datafication. The analysis involves interpreting and theorizing on the empirical data, specifically when “the research reaches the proper condition of scientificity” (Lopes, 2010, p. 151). We reflected on the research findings relating to the theoretical framework used. In this way, the identified properties of cyber journalism in Pará guide the narrative of this article. These aspects will be theorized, described, and analyzed in the following sections.

## 2 [Cyber]journalism at OLiberal.com and DOL

The emergence of modern journalism in the 19th century was marked by the commercialization of news’ products and the professionalization of journalism. This meant “journalism became a business with a growing number of owners who began publishing newspapers to make profits, the main objective of which being to expand circulation” (Traquina, 2005, p. 36). This industrial model of journalism was dominant until the end of the 20th century when the transition to post-industrial journalism took place (Anderson, Bell & Shirky, 2013). Since the mid-1990s there has been an explosion of digital techniques and tools (Anderson et al., 2013) which have been appropriated by journalism, while news started coming from a diverse range of sources (Anderson, Downie Jr. & Schudson, 2016) and places. These changes are part of the reshaping that the journalistic industry is currently going through, a scenario in which

A small number of megacorporations constitute the backbone of the global network of media networks. [...] In turn, national and regional media organizations increasingly rely on partnerships with these megacorporations to facilitate their own corporate expansion (Castells, 2015, p. 120).

After almost three decades of cyber journalism, we have seen software, databases, algorithms, programming and publishing languages, information management systems, visualization techniques, and semantic metadata become part of production routines (Barbosa, 2013). Online journalistic content is ubiquitous and is mainly

disseminated on websites, social media platforms, mobile websites (with responsive design), publications (notifications), desktops, and mobile applications (Malik & Shapiro, 2017). Steensen and Westlund (2021) state that cyber journalism is characterized by the following four characteristics: a crisis in revenue models, a greater emphasis on user data and audience analysis and journalism metrics, changing content distribution patterns with non-journalistic companies gaining dominance, and a greater vulnerability to manipulation, misinformation and, consequently, a lack of public trust.

The two online newspapers in our analysis have had a long-standing rapport with the population of Pará, one that was built on print journalism. The O Liberal newspaper was founded on November 15, 1946, as a media outlet for the Social Democratic Party (PSD) and is the oldest newspaper in circulation in the state. The Diário do Pará newspaper was founded on August 2, 1982, by the current state senator, Jáder Barbalho, from the Brazilian Democratic Movement (MDB-PA). Both newspapers were created for political purposes and continue their power struggles to this day.

The first Pará newspapers made available on digital devices date back to 1997, O Liberal Online is one example. At the time, the most important news stories from printed newspapers were transferred to the web. In 2004, the online newspaper changed its domain name to Portal ORM and added radio and television content from the Rômulo Maiorana Organizations. This change led the portal to release its own journalistic content, produced by an exclusive editorial team (Sousa, 2008). The mobile version of the ORM Portal was created in 2006, and in 2009 it was the first online newspaper profile on Twitter (Sousa, 2011), now called X. The domain name changed again in 2018 to OLiberal.com (Abreu, 2021). Despite the name, its editorial line has always been conservative and, in recent years, has openly defended Bolsonaroism.

Currently, the online newspaper has a presence on the OLiberal.com<sup>4</sup> portal. It can also be found on the following applications: Portal Liberal (website version), O Liberal (digital version of the print newspaper for subscribers and individual buyers), Você Repórter (sending information and complaints to the public), LibPlay (access to multimedia products), Liberal Amazon (access to content about the Amazon in English) and Liberal Radios (access to the group's radio stations). It also has a presence on X (Twitter)<sup>5</sup>, Facebook<sup>6</sup>, Instagram<sup>7</sup>, YouTube<sup>8</sup>, TikTok<sup>9</sup>, and Kwai<sup>10</sup>, on WhatsApp and Telegram messaging

applications, and on the SendPulse platform, an automation platform for sending notifications. According to the Similar Web<sup>11</sup> website analysis tool, OLiberal.com received more than 11 million visits between September and November 2023, with 1.851 million single visitors per month. 92.66% of these visitors came via mobile devices and 51.33% from organic searches (followed by 36.13% from direct access and 9.76% from social media platforms). Despite being aimed at the general public, it emphasizes the local market, with specific editorials about the main municipalities in the state, such as Belém, Ananindeua, Castanhal, Barcarena, Parauapebas, Santarém, and Marabá.

The Diário do Pará online newspaper debuted on the web in 2003, carrying the same name as its print counterpart, yet only published the content deemed to be most important. In 2008, the site was revamped and began publishing specific content produced by an exclusive editorial team. From then on, some of the content broadcast on the group's radio and television channels also began to be digitized and made available for the online newspaper (Sousa, 2008). In 2010, the domain name was changed to Diário Online (DOL). That same year, the online newspaper launched an X (Twitter) account (Sousa, 2011). In 2021, the portal once again changed its domain name to DOL.

DOL currently has its own website<sup>12</sup> and is also available on the Diário do Pará app (free digital version of its print newspaper content and some DOL news stories), on the RBA Rádio Clube, RBA Rádio 99 FM and RBA Rádio Diário FM apps (access to radio groups), on X (Twitter)<sup>13</sup>, Facebook<sup>14</sup>, Instagram<sup>15</sup>, YouTube<sup>16</sup>, and TikTok<sup>17</sup>, on Google News, and on WhatsApp and Telegram messaging apps. According to SimilarWeb<sup>18</sup>, DOL received more than 472 thousand visits between September and November 2023, with 30,841 thousand single visitors per month. 98.87% of these visits came via mobile devices and 62.96% from organic searches (followed by 29.97% direct access and 5.26% via social media platforms). The editorial line follows that of its print counterpart, which defends the political allies of the newspaper's owner. Although the online newspaper is aimed at the general public, it emphasizes the local market with an editorial entitled Pará, in addition to specific versions such as DOL Carajás and DOL Santarém and region.

The use of a multiplatform system strengthens the inclusion of media outlets in cyber journalism, bringing them closer to the processes of convergence, mobility, platformization, and datafication.

### 3 The convergence process for OLiberal.com and DOL

The beginning of the 21st century saw discourse around convergence gaining prominence throughout news organizations (Adghirni, 2012). Convergence journalism was defined as “the integration of tools, spaces, working methods and languages that had previously operated separately so that journalists could produce content that would be distributed across multiple platforms, using each one’s own languages” (Salaverría, Avilés & Masip, 2010, p. 59, our translation).

More recently, Larrondo Ureta, Díaz Noci and Erdal (2022) observed that, to keep up with the changes, media companies have begun to use digital technologies for information collection, publication, sharing, and configuring a systemic change of cultural importance. In this way, journalistic organizations:

adjusted their production operations (content and format) based on new strategies that affected the day-to-day operations of the newsroom (organization chart, coordination, physical layout, routines, professional profiles, etc.). Some companies chose to physically group professionals from different media in a single room to facilitate basic routines, such as sharing sources, which generated a bit of reluctance and apprehension among more experienced professionals. Other companies chose to go even further and merge their newsrooms in order to forge multimedia organizational structures, with the consequent reduction in personnel (Larrondo Ureta et al., 2022, n.p., our translation).

In addition, news outlets seek out effective engagement strategies, given the proliferation of available media and the public generating content in different ways (likes, shares, comments, data delivery, etc.). In this way, companies invest in “attractive and innovative formulas to offer content through multiple channels” (Larrondo Ureta et al., 2022, n.p., our translation).

Convergence opened up avenues for constant experimentation in terms of technologies, tools, content, formats, relationships with the public, and financing models. This means “innovation can be seen as a philosophy that accompanies and complements convergence, which is useful for conveying the changes and implications that convergence has brought and will continue to bring, along with technology and creativity” (Larrondo Ureta et al., 2022, n.p., our translation).

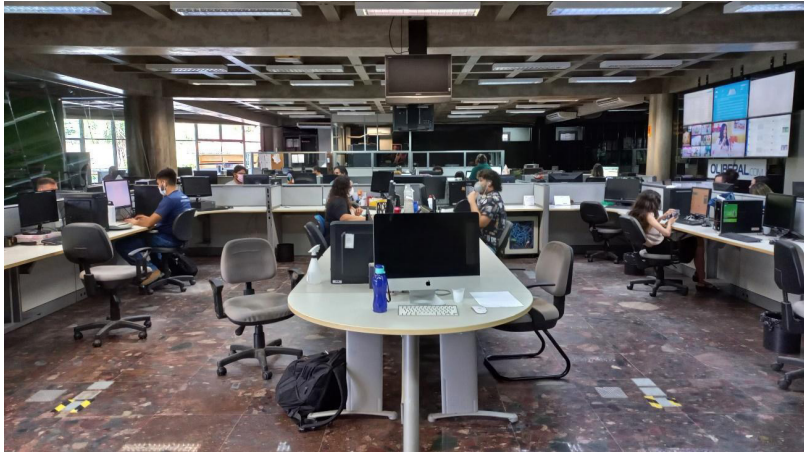
Thus, convergence is related to the innovation processes that occur in journalism, and although (according to the authors) it has lost strength as a fashionable concept, much of the research is still

linked to this macro phenomenon. As we know, the multiplatform structure of convergence has favored the use of different digital technologies by journalism.

In this scenario, traditional media outlets have had to adapt and invest in other products to capture new audiences while maintaining old ones, as is the case with OLiberal.com and DOL.

In 2018, the Liberal group's print and digital newsrooms underwent an integration process, as illustrated in Figure 1. The executive editor of OLiberal.com, Carlos Fellip Araújo (personal communication, April 4, 2022), explains that a technology center was created to contemplate innovations for the company, such as audience monitoring screens that allow all newsroom professionals to view the online newspaper's metrics.

Figure 1  
*Integrated Newsroom at OLiberal.com*



Source: Research Data, 2022.

The print, TV, and digital newsrooms of the RBA Communication group were integrated in 2019, as illustrated in Figure 2. The executive editor of DOL, Mauro Vieira Neto (personal communication, April 5, 2022), draws attention to adherence to SEO (Search Engine Optimization). SEO refers to a set of techniques that allow search engine algorithms to improve the prominence of a page in search rankings through a particular keyword and, consequently, help to increase the number of website visits. A professional who works remotely from São Paulo (SP) was hired by the DOL to do this.



Figure 2  
*Integrated Newsroom at DOL*



Source: Research Data, 2022.

The executive editor of OLiberal.com talks about how the business model has completely changed in recent years as “the logic of market planning is focused on digital”, although revenues from print versions are still much higher. Before integrating the newsrooms, the printed newspaper was sold separately, as was the website. Nowadays it’s different:

O Liberal is a content hub, which means that everything is O Liberal, just on different platforms. So, when it is sold, it is not selling the media outlet (sic), it is selling the brand. This way, you associate yourself with the O Liberal brand, which is available online through its website and social networks, and offline with the print newspaper (C.F. Araújo, personal communication, April 4, 2022<sup>19</sup>).

What stands out here is that the online newspaper changed its brand in 2018 from ORM Portal to OLiberal.com to unify all of the company’s products.

The executive editor of DOL states that print newspapers continue to be quite strong, generating a lot of revenue for the RBA Communication group. However, “DOL now earns more than TV. Since the trend is to do away with the newspaper, all this advertising content must be transferred to TV and digital” (M. Vieira Neto, personal communication, April 5, 2022<sup>20</sup>). In terms of its brand, the online newspaper was created with the same name as the print newspaper,

which later changed to Diário Online and then to DOL. Different from its competitor, this change was implemented to distinguish the DOL brand from other brands in the RBA Communication group (M. Vieira Neto, personal communication, April 5, 2022).

In terms of content priority, if the OLiberal.com agenda is a scoop, it is published first on digital. The repercussion gets published first in print: “all the critical analysis about this, all the developments, what could happen, the statements from the people involved, all of this is placed in the print newspaper [...] a snippet of it is released the next day<sup>21</sup>” (C. F. Araújo, personal communication, April 4, 2022).

DOL content either first appears on the portal or is taken from print, radio, and television:

We have a system. They see what I'm doing and I see what they're doing [...]. So, if I want a photo, I'll just go there and ask which photo will be in the newspaper. Ah, this is the best one. So, leave it to the newspaper. But he [the photographer] doesn't just take one photo, he takes a hundred photos. So I can use any other. I see a video on TV, it can go to the DOL before it goes on TV. The text [from print] can also be published (M. Vieira Neto, personal communication, April 5, 2022).

It is clear that commercialization (Traquina, 2005) continues to be a central element for OLiberal.com and DOL, which have invested in new techniques and tools (Anderson et al., 2013), while at the same time experimenting with convergence (Salaverría et al., 2010; Adghirni, 2012; Larrondo Ureta et al., 2022): in business models that now focus on digital, on journalistic practice, on the structure and language of content, and the relationship with the public. The objective of these changes is to reduce costs and win over an audience that has become increasingly diverse and fragmented.

In this way, OLiberal.com and DOL modify their business models and reconfigure themselves to continue attracting readers, thus remaining in the market. The newspaper's discourse as a multiplatform product is increasingly gaining prominence.

#### **4 OLiberal.com and DOL in mobility**

Mobility is a term with several facets that indicates one of the main characteristics of recent periods (Kellerman, 2012) as contemporary culture is increasingly becoming a culture of mobility (Lemos, 2009). There has always been a relationship between mobility

and society; however, in the 19th century there was an expansion of mobility as a result of the transport and communications revolutions and, as of the 20th century, there has been an even greater expansion due to telecommunications, satellites, the internet, and mobile digital technologies (Silva, 2013). This suggests not only a change in the dimensions of mobility (Lemos, 2009) but also a new paradigm of mobilities (Sheller & Urry, 2006).

When commenting on the production of journalism, Silva (2013, p. 321) observes that the use of mobile digital technologies plays “a central role in expanding and reshaping routines as a trend towards the multiplatform and mobility model”. Canavilhas (2021) points to changes caused by mobile devices in journalistic production, such as the possibility of permanent contact between the reporter and the newsroom, replacing image capture equipment with smartphones, the reduction in time between the event and the publication of the news, strengthening the work of *mojos*<sup>22</sup>, and the public participating in the news’ construction process. Abreu (2021) lists the following characteristics of producing news on mobile devices: agility, practicality, ubiquity, versatility, participation, continuous work, metrics, mobile/digital-first, and internet quality.

In the products sector, Paulino (2017) explains that web pages were not initially reformatted to the size of cellular phone screens, and only later were responsive websites created that adapted the content to fit the screens of digital platforms. Cunha (2015) points to three news application profiles for these supports: transpositive, a simpler version of the application that reproduces the content as it was published in print; the hybrid, an application that combines the characteristics of print and the web with the functionalities of mobile devices; and autochthonous, an application version that is designed especially for mobile support, exploring new production and consumption practices, as well as new business models.

According to Empinotti (2020), there is a tendency to underuse device functionality. Similarly, Alexandre (2021) warns that most news applications invest in transposing or adapting content, showing that there is still much to be explored.

In the domain of consumption, mobile devices favor the change from the pull to the push system, meaning that the public no longer goes after information, it is the information that reaches the public (Fidalgo & Canavilhas, 2009) through social networking sites,

content aggregators, and notifications. Mobile devices and social networking site formats – live streaming, GIFs, emojis, and memes – favor public engagement (Hill & Bradshaw, 2019), which adds to the flow of information. Each individual can choose the place, time, content, and format they wish to consume their news information, which is becoming more and more personalized through the use of algorithmic systems and artificial intelligence technologies (Salaverría & Lima-Santos, 2020).

When discussing mobile journalism, Hill and Bradshaw (2019) draw attention to its basic principles. Two of these principles are directly related to this research: mobile devices and social media. They are two sides of the same coin because although social media pre-dates smartphone technology, the success of Facebook, Instagram, and X (Twitter) has been driven by these smart devices. Mobile-first<sup>23</sup> and user-centered<sup>24</sup> strategies are at the heart of discussions among news media outlets, although the strategies may differ for each online newspaper.

With regards to using mobile devices and social networking sites for producing and circulating content, Carlos Fellip Araújo (personal communication, April 4, 2022) explains that the arrival of smartphones in the ORM Portal newsroom led to quicker news production, especially before print and digital teams were integrated:

Back then, we really needed to be quick because there weren't many of us who were given the gigantic task of covering the state. So, we really needed the internet. We did a lot over the Internet and the phone. Sometimes, there wasn't as much street mobility, mainly because it was a very small team with few resources. So, cell phones gave us a new way of working (C. F. Araújo, personal communication, April 4, 2022).

Integration provided more options, but the cell phone was still important as it had many advances: “basically, we gained much more agility, we could also solve operational problems more fluidly, faster” (C. F. Araújo, personal communication, April 4, 2022).

Also in the DOL, Mauro Vieira Neto (personal communication, April 5, 2022) highlighted speed as one of the changes that smartphones have introduced: “The way of doing journalism has really changed, the smartphone completely changes the speed of investigation, and now with the consolidation of social networks, it has changed even more”. Another important change is public participation in the news production process:

Do you know how many DOL reporters I have on the street? None [...]. I don't have a single reporter on the street [...]. My reporter is my audience. They contact us, and what do we do? We check here in the newsroom. For example, if it's something very factual, I turn on the TV and they check it for us [...]. The news comes to the DOL. We only leave the newsroom when it's special material. Day to day, I don't have a reporter on the street. And we achieve very high speed (M. Vieira Neto, personal communication, April 5, 2022).

This statement shows us a serious change to the role of journalists and the public, a situation that needs to be examined in all its complexities and perspectives – a problematization for future approaches, as it goes beyond the delimitations of this work.

We observed that, with mobile devices and social networking and messaging site applications, journalism from the online newspapers we analyzed has become more agile and fast, the time it takes to publish stories has been reduced, thus increasing public participation in the news production process (Abreu, 2021; Canavilhas, 2021) and switching routines to a multiplatform, convergent and mobile model (Silva, 2013).

Regarding products developed for smartphones, more than 90% of OLiberal.com's audience access content through mobile devices. For this reason, the newspaper's editorial team works with mobile in mind: "from our advertising to our content" (C. F. Araújo, personal communication, April 4, 2022). However, if the focus used to be on mobile first, it is now on AMP first, a Google tool for fast page loading. Using AMP on smartphones opens the online newspaper page much faster: "the desktop has many elements that are loaded at the same time because it assumes that the user is on a wired, more stable internet. AMP was made for 4G, thinking about the mobile connection" (C. F. Araújo, personal communication, April 4, 2022).

According to this executive editor, the company has not advanced its application development "because there is a huge fluctuation in downloads and uninstallations. So, there were a lot of downloads, but there were a lot of people leaving, and that is a market" (C. F. Araújo, personal communication, April 4, 2022). It is noteworthy, however, that in April 2022 the O Liberal application already had the full PDF version of its printed newspaper available for subscribers or for anyone who purchases the stand-alone edition. In the following months, four other directly related applications were published in the online newspaper (Portal Liberal, Você Repórter, Libplay, and Liberal Amazon).

More than 95% of DOL's audience access content through mobile devices. Mauro Vieira Neto (personal communication, April 5, 2022) also draws attention to DOL's on social networking sites, pointing to the "intern" (a fictional character who comments on publications) as one of the strategies used to increase the impressions<sup>25</sup> of posts on online newspaper profiles. To do this, the DOL team evaluates all of its metrics on social media sites. It should also be noted that the Diário do Pará application can be used for reading the print newspaper and some DOL headlines, while the other applications are from radio stations belonging to the RBA group.

We have seen that the OLiberal.com and DOL audiences access content mainly through mobile devices. It can also be seen that although both online newspapers have applications, they are transpositive (Cunha, 2015; Alexandre, 2021), with an underutilization of the devices' functionalities (Empinotti, 2020) – except for the *Você Repórter* application, which is a collaborative tool from OLiberal.com. As a result, investments, especially from the DOL, are not focused on applications, but on the consumption of news on responsive mobile websites (Paulino, 2017) and increasingly follow the logic of large platforms. Also noteworthy is the investment in content that aims to engage the public on social media sites using platform-specific language and formats such as hashtags, emojis, and memes (Hill & Bradshaw, 2019), favoring their participatory actions.

## **5 Platformization and Datafication of OLiberal.com and DOL**

Platformization and datafication are important elements of contemporary online journalism. Bell and Owen (2017) draw attention to the fact that large technology companies have evolved from just being distribution channels as they control the content that the public views. According to these authors, these platforms have forced news organizations to rethink their processes and structures, and at the same time, they have become key pieces for the current news ecosystem. Poell, Nieborg, and Van Dijck (2020, p. 4) define platforms as "(re)programmable digital infrastructures that facilitate and shape personalized interactions between end-users and complementarians, organized through systematic collection, algorithmic processing, monetization and circulation of data". In this sense, platformization can be characterized

as a broad domain of tracking data from users, devices, and other platforms to predict situations, induce actions, and generate new possibilities for offering services and products, affecting social dynamics (through the relationships established between users), the economy (through monetization from the use of systems that are in turn indicated from data practices collected and analyzed by the platforms), culture (inducing forms of cultural consumption), politics (creating audiences, shaping opinions, producing chains of disinformation ...) etc. (Lemos, 2023, p. 6).

News production routines have been transformed by this platformization process. According to Nieborg, Poell, and Deuze (2019, p. 89, our translation), news producers “are progressively moving their production and circulation strategies towards recommendation, classification, and other types of algorithms aimed at the end user of the main platforms”. This production depends on large technology companies such as Google, Meta, Apple, Amazon, and Microsoft, which “allow content developers to systematically track and profile the activities and preferences of billions of users” (Nieborg et al., 2019, p. 85, our translation).

The platformization of journalism “occurs when organizations or individuals producing news content abandon traditional dissemination methods and start providing their products and services through digital platforms” (Kalsing, 2021, p. 34). For the author, this practice is directly related to the use of metrics in newsrooms, resulting in new tasks and demands.

Another relevant concept is datafication, a relatively new paradigm, which is part of a broader logic of social media platforms and plays a profound ideological role, according to Van Dijck (2014):

Metadata in exchange for communication services has become the norm; Few people seem willing to pay for more privacy. The currency used to pay for online services and security has turned metadata into a kind of invisible asset, processed largely separate from its original context and outside people's knowledge. Social media companies monetize metadata by repackaging and selling it to advertisers or data companies (p. 202).

Datafication represents the current phase of digital culture and is related to platformization:

In the joint operation of platforms and applications (through the Apple and Google stores), we have datafication processes for monitoring health (Apple Watch, Fitbit), transportation (Waze, Uber, 99), housing, (AirBnb), deliveries (Uber Eats, iFood), Education (Zoom, Meets), relationships (Facebook, Twitter, WhatsApp, Tinder), work (LinkedIn), content consumption (YouTube, Instagram, Spotify, Netflix, Apple TV, Amazon Video, PlayStation, Xbox, Apple Arcade), home (Nest, Amazon Echo, Google Home, Apple Home) (Lemos, 2021, p. 196).

Thus, “quantified social interactions subsequently became accessible to third parties: the companies themselves, government agencies, or other platforms” (Van Dijck, 2017, p. 42). In this context, metrics have gained increasing prominence in journalism and, consequently, data has become central to news outlets’ operations (Ekström, Ramsälv & Westlund, 2021). These measurements have influenced news production and the professional culture in newsrooms: “it is now a reality that audience monitoring panels compete for space in newsrooms with televisions tuned in to full-time news channels” (Vieira & Christofoletti, 2019, p. 144). In this scenario, audience data flows have become objects of struggle between social media platforms and journalistic outlets (Carlson, 2018). In this battle, the two portals analyzed in this paper have already surrendered to the logic of technology corporations. Schapals and Bruns (2019) explain that journalism has undergone an intense process of quantification:

Page clicks, reading time, arrival and departure paths, and especially reader engagement on various social media platforms are now measured in intricate detail and reported to news organizations in real-time. These metrics can then serve to directly influence future editorial decisions (Schapals & Bruns, 2019, p. 01, our translation).

Ekström et al. (2021) point to data that is key to the functioning of news organizations, for example, the way news is presented, which photos are selected, which headlines are chosen, and even the pop-up advertisements on portals that interfere with the consumption of news content; a clear example of platformization and datafication in society.

We observed that the practices, products, languages, and business models of the two online newspapers are increasingly being shaped according to the logic of large technology companies that operate on a global scale. Carlos Fellip Araújo (personal communication, April 4, 2022) highlights that, up until the end of the 2000s, the internet was seen as a content storehouse: “it was like bait, trying to get people to sign the printed version”.

Only later on did the production of specific digital content with its own language begin to exist, with the “slicing” of content in search of greater audience navigation. Currently, OLiberal.com delivers all its content to its social media sites. Although links are included that redirect readers to its online version, there is the understanding that “this social network audience exists for a



reason, they want to be on the social network” (C. F. Araújo, personal communication, April 4, 2022).

This led to a change in strategy, and OLiberal.com’s main concern became SEO. This allows for content producers to be easily found and ranked in search engines. To do this, they need to follow the corporate logic, which is a combination of content, technology, and marketing, with a focus on platformization and datafication of journalism. Faced with this scenario, cyber journalists have joined global contexts and begun writing for search engines:

When we talk about search engines, we talk a lot about Google. Therefore, our very strong content work in recent years has been with SEO, which is a title made up of keywords, the text is written thinking about keywords, using more hyperlinks, using bold font, using images, that is, formatting the text in a way that search engines will understand what is important to the user (C. F. Araújo, personal communication, April 4, 2022).

These strategies favor and increase the position of content in search engine rankings. According to Carlos Fellip Araújo (personal communication, April 4, 2022), “whoever is using a search engine, whoever is using Google, Yahoo, or Bing, is already ready to go somewhere else. It’s different from someone who is on social media.” This means that the public who usually enter and browse OLiberal.com is coming from search engines.

Similarly, the language for digital content at DOL has been designed more and more using search engines. Up until 2020, around 70% of DOL accesses came from Facebook. However, the change to social networking site algorithms has changed this: “we did a complete restructuring of the newsroom to learn how to rewrite the way Google wants [...]. I ’an’t fight with Google” [...] So, we had to understand. We achieved this from SEO analysis” (M. Vieira Neto, personal communication, April 5, 2022). As a result, the SEO professional began to gain prominence at DOL: “he’s the guy who reads the background of the pages [...]. Our direct traffic is what adds the most today because the guy turned DOL into the inter’et’s home page. People enter through Google”, explains the editor.

This led to a complete change in the structure of news texts due to the logic of large technology companies that operate on the international scene. Furthermore, some textual practices that work well for one support, do not work for the other: “I am an advocate for the lead, but in print newspapers. [...] at DOL there is no longer a lead” (M.

Vieira Neto, personal communication, April 5, 2022) as Google does not want the information to be delivered directly, that is, in a short text.

Therefore, due to search engine rankings and advertising, texts published in DOL need to have an introductory paragraph before diving into the specific news subject. “All [DOL professionals] have to have introductions, except for newspaper articles, as we do not touch any content that is not ours” (M. Vieira Neto, personal communication, April 5, 2022). The language between the various social networking sites also needs to be different, according to the journalist who states that “anyone who do’sn’t understand this is doomed to failure”. This line of thought and action is a reflection of platformization and datafication, which are important paradigms for understanding contemporary society.

With regards to datafication on OLiberal.com, the metrics

are directly responsible for what the newsroom does, and for the content it produces, both from a reporting point of view and a product point of view. So, based on these metrics, we understand who our audience is, what our audience is looking for, what our audience is interacting with on social networks, on Google itself, and the actual website (C. F. Araújo, personal communication, April 4, 2022).

We use this data to define what content to produce. Currently, 80 to 90% of content decisions are based on metrics, which have transformed the news production process:

Until recently, journalism was guided by newsrooms; they worked with a journalistic feeling. It was the head reporter, the editor, the producer, they were the ones who created the agenda. So, what was released to the public came from the thoughts of a journalist inside the newsroom. What has changed? The web allowed for direct contact with the public, with the audience, and with the news consumer. So, it made journalists respect the audience. In other words, what I used to think was important for people to know would get published, but today, what people want to know will also get published [...]. We can see this through audience data, which content is being accessed, and what is being searched for on Google and other search engines (C. F. Araújo, personal communication, April 4, 2022).

The scenario is similar at DOL where there is a clear inversion of news values and current priority is what the audience wants to know, even if it is not in the public’s interest and/or has no social relevance. For Mauro Vieira Neto (personal communication, April 5, 2022), “digital journalism is more statistics than it is information, [...] because nowadays everything is metrics”. Professionals at DOL were trained to watch the metrics. “[...] everyone here is obliged, especially social media”.

This executive editor exemplifies how metrics influence deciding which content will be produced on the portal: “People are reading about Pedro Scooby. It hasn’t been released yet, it will be in 12 hours, but I already know about it. So, I’m going to start looking for all the content I can about Pedro Scooby and start putting it on DOL” (M. Vieira Neto, personal communication, April 5, 2022). In this sense, Mauro Vieira Neto states that “journalism has changed completely [...]. It is necessary to reformulate the content and editorial vision”.

The platformization (Bell & Owen, 2017; Nieborg et al., 2019; Kalsing, 2021) of OLiberal.com and DOL was evident with their use of social networking sites to publish news content, adapting texts, photos, videos, etc., according to the specificities of each space. More recently, it has gained strength with the focus of news companies on search engine rankings, leading to a structural change in journalistic texts. Therefore, we observed that the content distribution of the two online newspapers in our analysis follows the standards created by large platforms (Bell & Owen, 2017; Hill & Bradshaw, 2019; Steensen & Westlund, 2021).

Attention is also drawn to the emergence of a new professional in the news production process: the person responsible for SEO. At OLiberal.com, this professional is part of the company’s technology core. At DOL, this professional was hired to work remotely from São Paulo (SP).

Also of note are the partnerships between media outlets and large technology companies. OLiberal.com had a project selected for the Accelerating Digital Transformation program from the National Newspaper Association (ANJ) and the National Association of Magazine Editors (Aner), with support from Meta (current owner of Facebook, Instagram, and WhatsApp) and collaboration with the International Center for Journalists (ICFJ). DOL is a partner of Google. Since 2021, the technology company has purchased the portal’s content and published it on Google News – which reinforces the DOL’s adherence to the textual preferences of Google.

We observed that journalism at OLiberal.com and DOL has also gone through a quantification process (Schapals & Bruns, 2019) that has changed journalism practices, professional culture, and the newsroom itself (Vieira & Christofolletti, 2019), which now use panels with audience data, as illustrated in Figures 1 and 2. This leads to new tasks and new demands (Kalsing, 2021), such as checking the most accessed content and the topics that are trending in search engines, and even a new stage of journalistic production specifically related to this quantification (Abreu, 2021).

As a result, editorial decisions are increasingly influenced by metrics (Schapals & Bruns, 2019), such as changing the structure of texts on OLiberal.com and DOL so that they are better ranked by Google, and issues covered by the portals. Data is then a key element for media outlets (Ekström et al., 2021), as we have seen with the two online newspapers we analyzed for this paper.

## 6 Final Considerations

Using a qualitative approach, this research was conducted through direct observation and semi-structured interviews with the executive editors from two major online newspapers in Pará. This allowed us to understand the main properties of cyber journalism at OLiberal.com and DOL: convergence, mobility, platformization, and datafication.

We found that these two online newspapers have advanced in the convergence process; they have invested in metrics analysis and content production for circulation and consumption on mobile devices, especially on social networking sites and search engines. They have adapted to the processes of mobility, platformization, and datafication – properties that demarcate the work of journalists and journalism itself. This shows a change to the business model of online news companies, leading to integrated newsrooms and changing the routines, professional culture, and journalistic products.

Even though OLiberal.com and DOL are located in the Brazilian Amazon, far from major international and national innovation centers, it is clear that these media outlets are attentive to the changes in journalism and the global logic of large technology companies, however slow the local deployment process may be. This has caused significant changes in journalism, its news values are now being designed according to metrics, agendas, and texts being defined according to search engine preferences and the way that news can be built without needing to go to the streets, something that was previously unimaginable. These changes that have redefined the role of journalists, sources, and the public, and that have reshaped narratives, business models, and the relationship with advertising are indicators of the close relationship between journalism and the logic of big tech, exposing certain nuances of convergence and its relationship to the mobility, platformization, and datafication of today's society.

## NOTES

- 1 Comprised of the Grupo Liberal, which also includes the print newspapers O Liberal and Amazônia, the Liberal FM, Liberal AM and LibMusic (online) radio stations, and TV Liberal.
- 2 Comprised of the RBA Communication Group (Rede Brasil Amazônia) which also includes the print newspaper Diário do Pará, the 99 FM, Diário FM and Clube radio stations, and TV RBA.
- 3 These two interviewees signed the Free and Informed Consent Form (TCLE) and the Consent Form for the use of images, statements and voice recordings.
- 4 Available at: <https://www.oliberal.com/> Access on: Aug. 30, 2023.
- 5 Available at: <https://twitter.com/oliberal> Access on: Aug. 30, 2023.
- 6 Available at: <https://www.facebook.com/oliberal> Access on: Aug. 30, 2023.
- 7 Available at: <https://www.instagram.com/oliberal/> Access on: Aug. 30, 2023.
- 8 Available at: <https://www.youtube.com/c/OLiberalPA> Access on: Aug. 30, 2023.
- 9 Available at: <https://www.tiktok.com/@oliberal.com> Access on: Aug. 30, 2023.
- 10 Available at: <https://www.kwai.com/@oliberal> Access on: Aug. 30, 2023.
- 11 Available at: <https://bit.ly/3vp63Xr> Access on: Dec. 30, 2023
- 12 Available at: <https://dol.com.br/> Access on: Aug. 30, 2023.
- 13 Available at: <https://twitter.com/doldiarionline> Access on: Aug. 30, 2023.
- 14 Available at: <https://www.facebook.com/doldiarionline> Access on: Aug. 30, 2023.

- 15 Available at: <https://www.instagram.com/doldiarioonline/> Access on: Aug. 30, 2023.
- 16 Available at: <https://www.youtube.com/c/DiárioOnlineDOL> Access on: Aug. 30, 2023.
- 17 Available at: <https://www.tiktok.com/@doldiarioonline> Access on: Aug. 30, 2023.
- 18 Available at: <https://bit.ly/48hSoA3> Access on: Dec. 30, 2023.
- 19 All citations from C. F. Araújo (2022) were taken from the interview, and thus were not paginated.
- 20 All citations from M. Vieira Neto (2022) were taken from the interview, and thus were not paginated.
- 21 The term “snippet” refers to a brief extract of news that is posted on the online newspaper.
- 22 Mobile journalists.
- 23 Products created for mobile devices.
- 24 Products created for user participation.
- 25 Refers to the number of times a post has been displayed.

## REFERENCES

Abreu, G. F. (2021). *Reconfigurações da produção jornalística a partir do uso do smartphone*. (Dissertação de Mestrado). Programa de Pós-Graduação em Comunicação, Linguagens e Cultura, Universidade da Amazônia, Belém.

Adghirni, Z. L. (2012). Mudanças estruturais no jornalismo: travessia de uma zona de turbulência. In F. Pereira, D. Moura & Z. L. Adghirni (Orgs.), *Jornalismo e Sociedade: teorias e metodologias* (pp. 61-79). Insular.

Alexandre, T. B. (2021). *Linguagem jornalística autóctone para dispositivos móveis*. (Tese de Doutorado). Programa de Pós-Graduação em Ciências da Comunicação, Universidade do Vale do Rio dos Sinos, São Leopoldo.

Anderson, C.W., Bell, E., & Shirky, C. (2013). *Jornalismo pós-industrial*:

- adaptação aos novos tempos. *Revista de Jornalismo da ESPM*, 2(5), 30-89.
- Anderson, C.W., Downie Jr, L., & Schudson, M. (2016). *The News Media: What Everyone Needs to Know*. New York: Oxford University Press.
- Barbosa, S. (2013). Jornalismo convergente e continuum multimídia na quinta geração do jornalismo nas redes digitais. In J. Canavilhas (Org.), *Notícias e Mobilidade: O Jornalismo na Era dos Dispositivos Móveis* (pp. 33-54). Livros Labcom.
- Bell, E., & Owen, T. (2017). *The Platform Press: How Silicon Valley Reengineered Journalism*. Nova York: Columbia Journalism School.
- Canavilhas, J. (2021). Epistemology of Mobile Journalism. A Review. *Profesional de la información*, 30(1), e300103.
- Carlson, M. (2018). Confronting Measurable Journalism, *Digital Journalism*, 6(4), 406-417.
- Castells, M. (2015). *O poder da comunicação*. São Paulo: Paz e Terra.
- Cunha, R. E. S. (2015). *Design de informação em produtos jornalísticos para tablets: uma comparação Brasil-Espanha*. (Tese de Doutorado). Programa de Pós-graduação em Comunicação e Cultura Contemporâneas, Universidade Federal da Bahia, Salvador.
- Ekström, M., Ramsälv, A., & Westlund, O. (2021). Data-driven News Work Culture: Reconciling Tensions in Epistemic Values and Practices of News Journalism. *Journalism*, 23(4), 755-772.
- Empinotti, M. L. (2020). *Taxonomia para classificação de aplicativos noticiosos para smartphones*. Um sistema baseado em funcionalidades e *affordances*. (Tese de Doutorado). Universidade da Beira Interior, Covilhã.
- Fidalgo, A., & Canavilhas, J. (2009). Todos os jornais no bolso: pensando o jornalismo na era do celular. In C. Rodrigues (Org.), *Jornalismo On-line: modos de fazer* (pp. 99-118). Sulina.
- Hill, S., & Bradshaw, P. (2019). *Mobile-First Journalism*. Producing News for Social and Interactive Media. Londres/ Nova York: Routledge.
- Kalsing, J. (2021). *Jornalistas metrificados e a plataformação do jornalismo*. (Tese de Doutorado). Programa de Pós-Graduação em Comunicação, Universidade Federal do Rio Grande do Sul, Porto Alegre.
- Kellerman, A. (2012). *Daily Spatial Mobilities*. Physical and Virtual. Farnham, Burlington: Ashgate.
- Lemos, A. (2009). Cultura da Mobilidade. *Revista Famecos*, 40, 28-35.

Lemos, A. (2021). Dataficação da vida. *Civitas: Revista De Ciências Sociais*, 21(2), 193–202.

Lemos, A (2023). O Futuro da Sociedade de Plataformas no Brasil. *Intercom: Revista Brasileira De Ciências Da Comunicação*, 46, e2023115.

Lopes, M. I. V. (2010). *Pesquisa em comunicação*. São Paulo: Edições Loyola.

Larrondo Ureta, A., Díaz Noci, J., & Erdal, I. (2022). Convergence and innovation: the conceptual and methodological basics of technological Evolution and cultural complexity in journalism. In J. Vázquez-Herrero et al. (Orgs.), *Total Journalism*. Models, techniques and challenges (pp. 13-28). Springer.

Malik, A., & Shapiro, I. (2017). What's digital? What's journalis? In. B. Franklin & S. Eldridge (Orgs.), *The Routledge Companion to Digital Journalism Studies* (pp. 15-24). Routledge.

Martino, L. M. S. (2018). *Métodos de pesquisa em Comunicação: projetos, ideias e práticas*. Petrópolis: Vozes.

Nieborg, D., Poell, T., & Deuze, M. (2019). The Platformization of Making Media. In D. Nieborg & T. Poell (Orgs.), *Making Media*. Production, Practices, and Professions (pp. 85-96). University Press.

Paulino, R. (2017). Interatividade e visualização de notícias em apps: um design baseado em Cards. In. Encontro Nacional de Pesquisadores em Jornalismo – SBPJOR, 15, 2017, São Paulo. *Anais [...]*. São Paulo: SBPJOR/USP.

Poell, T., Nieborg, D., & Van Dijck, J. (2020). Plataformização. *Revista Fronteiras*, 22(1), p. 2-10.

Salaverría, R., Garcia Avilés, J. A., & Masip Masip, P. M. (2010). Concepto de convergencia periodística. In X. López Garcia & X. Pereira Fariña (Orgs.), *Convergência Digital: Reconfiguración de los Medios de Comunicación en España* (pp. 41-64). Universidade, Servizo de Publicacións e Intercambio Científico.

Salaverría, R., & Lima-Santos, M. F. (2020). Towards Ubiquitous Journalism: Impacts of IoT on News. In J. Vázquez-Herrero, S. Direito-Rebollal, A. Silva-Rodríguez & X. López-García (Orgs.), *Journalistic Metamorphosis*. Media Transformation in the Digital Age (pp. 01-15). Springer.

Schapals, A. K., & Bruns, A. (2019). Are Journalism Metrics Trustworthy Enough to be Used in Editorial Decision-Making? In. Annual Conference of the Association of Internet Researchers – AoIR, 20, 2019, Australia. *Anais [...]*. Austrália: AoIR.



Sheller, M., & Urry, J. (2006). The New Mobilities Paradigm. *Environment and Planning A*, 38(2), 207-226.

Silva, F. F. (2013). *Jornalismo móvel digital: o uso das tecnologias móveis digitais e a reconfiguração das rotinas de produção da reportagem de campo*. (Tese de Doutorado). Programa de Pós-Graduação em Comunicação e Cultura Contemporâneas, Universidade Federal da Bahia, Salvador.

Sousa, M. C. E. (2008). *Jornalismo Digital no Pará: análise do Portal ORM, do Portal Cultura e do Diário do Pará*. 2008. Monografia (Graduação em Comunicação Social – Jornalismo). Faculdade de Comunicação, Universidade Federal do Pará, Belém.

Sousa, M. C. E. (2011). A mudança na dinâmica dos portais paraenses a partir da web 2.0: um estudo da interatividade no Jornalismo Digital no Pará. In: Congresso Brasileiro de Ciências da Comunicação – INTERCOM, 34, 2011, Recife – PE. *Anais [...]*. Recife: 2011.

Steensen, S., & Weslund, O. (2021). *What is Digital Journalism Studies?* Abingdon/Nova York: Routledge.

Traquina, N. (2005). *Teorias do jornalismo: porque as notícias são como são*. v 1. Florianópolis: Editora Insular.

Van Dijck, J. (2014). Datafiction, Dataism and Dataveillance: Big Data between Scientific Paradigm and Secular Belief. *Surveillance & Society*, 12(2), 197-208.

Van Dijck, J. (2017). Confiamos nos dados? As implicações da datificação para o monitoramento social. *MATRIZES*, 11(1), 39-59

Vieira, L. S., & Christofoletti, R. (2019). Impacto no jornalismo online: Cultura do clique, métricas e relevância social. *Lumina*, 13(1), 132-148.

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