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## Metrics at Work: a case study about the tensions in the media industry

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**Abstract.** This article aims to present a debate over the increasingly complex and widespread use of measurement and performance indicators of digital content in the media industry, considering the case study of La Nación, one of the leading news institutions in Argentina. The paper reconstructs the introduction and architecture of metrics measurement in the newsroom of La Nación, and the journalists' perceptions and experiences regarding these organizational changes. The focus will be on the adoption of the Score, an algorithmic metric developed in-house at La Nación, designed with journalistic input and eventually modified to include economic factors.

The findings confirm the tensions between professional and commercial logics produced by adopting digital metrics in the newsroom and suggest that journalists experience metrics as a strong disciplining influence. All this is developed in an uncertain context involving the financing of Argentinean digital media along with the decline in the traditional journalistic business model.

**Keywords.** Scoring; Algorithms; Journalists; Productivity; Productive Routines; Digital Content

### [es] Métricas en el trabajo: un estudio de caso sobre las tensiones en la industria de los medios de comunicación

**Resumen.** Este artículo tiene como objetivo presentar un debate sobre el uso cada vez más complejo y generalizado de la medición y los indicadores de resultados de los contenidos digitales en la industria de los medios de comunicación, considerando el caso de estudio de La Nación, una de las principales instituciones de noticias de Argentina. El trabajo reconstruye la introducción y la arquitectura del seguimiento de las métricas en la redacción de La Nación, así como las percepciones y experiencias de los periodistas respecto a estos cambios organizativos. La atención se centra en la adopción del Score, una métrica algorítmica desarrollada internamente en La Nación, diseñada con el aporte periodístico y eventualmente modificada para incluir factores económicos.

Los resultados confirman las tensiones entre las lógicas profesionales y comerciales que produce la adopción de las métricas digitales en la redacción y sugieren que los periodistas experimentan las métricas como una fuerte influencia disciplinaria. Todo ello se desarrolla en un contexto incierto que implica la financiación de los medios digitales argentinos junto con el declive del modelo de negocio periodístico tradicional.

**Palabras clave:** Métricas; Algoritmos; Periodistas; Productividad; Rutinas productivas; contenido digital.

**Summary.** 1. Introduction 2. Literature Review 3. Theoretical Notes 4. Methods 5. Metrics in *La Nación* ("Work Code") 5.1. Pressure from Superiors ("Labor Code") 5.2. Score: Unclear Metrics and Processes 6. Conclusion and Limitations 7. Bibliographic References

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## 1. Introduction

Over the last decade, measuring data systems have gained prominence in newsrooms and marketing departments in media industries. Given this, I present an analysis of their impact on the working organization processes and journalists' self-perception in the Argentinean Newspaper *La Nación*. The focus will be on the adoption and evolution of the *Score*, an algorithmic metric developed in-house at *La Nación*, designed with journalistic input and eventually modified to include economic factors. While some journalists have aligned with the 'metric approach' offered by the direction, other writers and editors-in-chief claim to have gone through

instances of frustration and that their 'creative work' has been affected. They also state that they are subjected to work control, given that metrics are not only applied to measure readership consumption, but also the journalist's individual performance.

*La Nación* was selected as a case study because it is one of the most traditional and influential media of Argentina. Founded in January 1870 by former President Bartolomé Mitre, it has had a consistent conservative ideological tone and a loyal following among the country's upper and upper-middle classes (Boczkowski, 2010).

Different authors studied the changes in the processes of production and the productive routines in

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newspaper newsrooms, including *La Nación* (Albornoz, 2005; Boczkowski, 2010; Luchessi, 2010; Martini & Luchessi, 2004; Rost, 2006). However, it was mainly studied at the content level and discourse analysis to understand the role of the media as a privileged political interlocutor (Alonso, 2007; Blaustein and Zubieta, 1998; Díaz, Giménez y Passano, 2002; Luchessi, 2009; Sidicaro, 1993; Ulanovsky, 2005), and the relationship between the newspaper and its audience (De la Torre and Téramo, 2005; Raimondo Anselmino, 2012).

At the market level, in recent decades, *La Nación* S.A. expanded to become a medium-sized, privately-owned media conglomerate (Boczkowski, 2010), with a significant presence in the newspaper, magazine, Internet sectors and a digital TV channel. It is *Clarín's* associate in the single newsprint paper production facility (*Papel Prensa*) and in *Exponenciar*, the company that organizes the main agribusiness fair (*Expoagro*). In 2007, it founded *Dridco Company*, later owned by *Navent*, leader in Latin-American online classifieds, with sites like *Zona Jobs*, *Zona Prop* and *Bumeran*. In 2012, *La Nación* S.A. took over *Impremedia*, the largest Spanish newspaper and magazine publication company in the United States.

*La Nación* is the second best-selling newspaper in Argentina and the third in terms of

readership as a news portal. Over the last two years, though, a fall in newspaper sales and in advertising revenues has deeply affected traditional cultural industries (Calcagno, 2019), and *La Nación* was no exception. Between 2003 and 2018, it lost 35% of its traditional readership (Becerra, 2018). Between March 2019 and March 2020, it reduced its sales by almost 20%, when the average drop in the rest of the newspapers in Argentina was 12%, according to data extracted from the monthly report of the Circulation Verifying Institute.

In January 2019, it closed its printing plant and 75 workers were dismissed. Over the last two years, the company also reduced the editorial staff by 20% through employee buyout programs, early retirement and layoffs. This scenario is not only explained from the economic dimension; digital transformation also deeply affects cultural consumption: the importance of dominant brands in the 20<sup>th</sup> century has little value in the 21<sup>st</sup> century (Boczkowski & Mitchelstein, 2019).

This article is trying to answer two questions: to what extent *La Nación's* management introduced and applied systems of consumption measurement in the newsroom, especially the *Score Model*, and how journalists responded to those changes. More inquiries have arisen from this and will be dealt with in this article: a. How much do journalists know about the design and the interpretation of the metric systems used by the company? b. How is the algorithmic logic, which is used in the newsroom, related to the digital business model in the company? c. How does this work measurement affect journalists' states of mind?

The first part of this article presents a literature review about the relation between

journalists and audience metrics. In the second part, there is a brief section about the main theoretical concepts, which guided the research, and notes about the methodological election. The main objective of this article involves showing the tensions that are generated over that process of technological, economic and cultural changes, experienced by a traditional Argentinean newspaper, and contribute to communication studies in the digital context, especially to those that have analyzed the way in which algorithms invade productive routines in the media. Finally, I present questions regarding the agenda of future research, and suggest continuing the studies about metrics impact in other communication, commercial and public means, both in Argentina and in the region.

## 2. Literature Review

In this section, attention is drawn towards academic studies which are focused on web metrics use in the media. Most of these studies result from qualitative and ethnographic investigations in newsrooms from the United States and Great Britain. Neither of them is nowhere near to be found within a centralist or deterministic paradigm as far as the role played by technology is concerned. In this respect, this article starts off considering that media changes come along with profound changes in cultural practices. A technological device is not therefore a product free of history, as it is not inserted in an immaculate world outside political, social or economic nuances

(Williams, 2011). Technology does not have features which define it as an artifact itself, which make it good or bad, productive or non-productive. On the contrary, technology is understood as long as it is embedded in a social group which makes use of it (Pinch & Bijker, 1989).

In an ethnographic work of editorial practices at the online news websites *clarin.com* and *lanacion.com*, Boczkowski (2010) found that, although metrics are increasingly pervading the newsrooms and journalists are increasingly aware of the news choices made by their sites consumers, they tend to prioritize newsworthy values over consumer preferences. This study has the particularity of combining analysis of content with work processes, a pending issue in communication studies in Latin America.

Anderson (2011) analyzed how journalists are losing power over the decisions they make regarding news articles. In his study on the metrics used in *Gawker Media* and *New York Times*, Petre (2015) showed that metrics have a powerful influence on journalists' emotions and morale, thus, becoming a simultaneous source of stress and reassurance.

Bunce (2017) wondered how the management of a global news organization such as *Reuters* directed its journalists to change their practices about metrics,

and how those journalists responded. The author suggested that regardless of how managers use metrics, the knowledge that this data has gathered and monitored can affect the way in which journalists work. Unhappy as they might feel, most of these traditional journalists tried to meet the new management priorities because they wanted job security in an uncertain environment. On the contrary, Usher (2013) observed that although *Al Jazeera English* senior executives had access to sophisticated metrics, they promoted a moderate culture on audience metrics, and just a few journalists took into account the metrics in their decision making or generated resistance to their use.

Ferrer (2017) studied the application of metric systems on a sports website, *Bleacher Report*, and the attitudes of journalists towards those systems. He analyzed how metrics can quantify not only the audience, but also work processes, and generate motivation among journalists through gamification strategies.

Current literature shows that the nature and use of metrics vary among the media due to several factors, where the organizational culture of newsrooms, journalistic criteria and norms that concern the profession and economic factors stand out (Anderson 2011; Bunce 2015, 2017; Dick 2011; MacGregor 2007; Singer 2011).

### 3. Theoretical Notes

Considering authors from the Political Economy of Communications (PEC), media industries are regarded as cultural industries with specificities, which differentiate them from other economic sectors, like its randomness, constant renovation and creative work needs (Bolaño, 2013; De Mateo, 2009; Tremblay, 2011; Zallo, 1988, 2007 y 2011). These characteristics are present in the digital context (Becerra, 2015;

Mastrini, 2017). This article focuses on creative work to analyze journalists' perceptions about the introduction and application of metrics in their everyday work.

The notion of creativity, within the framework of work processes, can also be approached from a theoretical perspective opposite to PEC: from a business perspective, which understands creative work as an individual talent, an engine of benefit for firms, subordinating culture to the market, without asking about the resistance that workers exert (O'Connor, 2011). However, from PEC perspective, creative work is considered a work which is independent from the value in its production and from the value that the product exhibits in the market. It is a work highly uncertain, subject to trial and error, hard to be controlled over time and where subjectivity is essential (Dantas, 2006; Hesmondhalgh y Baker, 2011; Zallo, 1988).

In articulation with the concept of "creative work", two categories of analysis are recovered from the Sociology of Work: "Work Code" and "Labor Code" (Roldán,

2011 and 2014). Roldán compared the automotive industry with the television industry to respond to what extent certain features of the "flexible model" are replicated in the cultural industries in the digital context, affecting the creative work of workers. This productive model, also called Ohnist or Toyotista, is mainly based on the organization of continuous flow and manufacturing on client demand. In the case of this investigation: Does *La Nación* produce journalistic content only based on user demand? How does it affect the creative work of journalists? To what extent algorithmic logic does not clash with journalistic logic?

Roldán (2011, 2014) used the category "Work Code" to refer to mechanisms of coordination and control present in the internal dynamics of the production process, for example, through the adoption of technology. The author started by recognizing that it is difficult to establish rigid mechanisms in cultural industries. Insofar as the media management requires creative work in the production of content, journalists will need some autonomy and it will not be feasible to implement successfully a "Work Code", based only on technical control mechanisms, as it is in the case of other economic sectors (Roldán, 2011 and 2014).

"Labor Code" refers to the external mechanisms of coordination and control of the production process, through various forms or levels of supervision. Following Edwards, Roldán (2011, 2014) distinguished "simple control" (direct, personal and exercised by the entrepreneur himself or by his managers and supervisors), "group control" (among its own members or colleagues) and "self-control" (according to the subjectivity and attitudes of the workers). In this respect, it is interesting to observe how journalists responded to the introduction and application of metrics, their emotional costs and legitimacy.

### 4. Method

The analysis present in this article relies on semi-structured and in-depth interviews as well as on work processes and direct observation in the newsroom. Metrics analysis focuses on organization processes of online work.

**Interviews:** 24 semi-structured and in-depth interviews to journalists, senior management staff (editorial secretaries, section chiefs) and other technical and journalistic profiles, linked to data engineering, as software developers. Each person was interviewed at a time and the interviews were one-on-one, except for six video calls, and, on average, they lasted for about an hour. Some of the interviewees were interviewed for a second time, because I considered them key sources of information, or to be able to assess how they were calculating the new metric, *Score*.

The main criteria for source selection were: the study period I have considered, the gender, the occupation, and the hierarchical level in the management chain; the bond created during the newsroom partic-

ipation was also regarded, as some interviews were carried out after fieldwork observation. In that way, press workers were selected through the application of different strategies: on the one hand, the well-known “snow ball” sampling approach. Being aware of the fact that individuals who share activities, similar features and have a social bond may have a wider influence on the results (Voicu & Babonea, 2011), other strategies were applied to limit the “snowball” bias: 1. keep a balanced proportion in the age groups, genre and professional roles and 2. activate reference chains based on “strategic access to multiple networks to widen the research scope beyond only one net, that is, the reference chains, or multiple “snow balls” (Penrod et al, 2003, p. 155).

The interviews were not directed or guided with closed questions. An open, indicative topic guide encouraged in-depth dialogues and included the objectives of the study, role varieties and job positions in the newsroom, as well as the different production stages. Two main objectives were highlighted: a. An analysis of algorithmic models in the organization of productive systems and work processes in *La Nación* and

b. An analysis of the potentialities and restrictions of their use in the journalists’ productive routines, their perceptions and experiences.

**In situ observation.** As a complementary research technique, participant observation was adopted and realized from May to June, 2013. I stayed mainly in the online editorial section, in the editorial department, in the politics section, in the sports section, in the design area and I also watched the meetings scheduled in the agenda in two occasions. Observations were registered in writing and no recordings were made.

The initial strategy implied entering at least ten times to repeat the observation in different areas and sections. However, only five intensive sessions, lasting on average ten hours each, were held. Given this limitation, it was assured that most interviews and participant observation did not overlap. Therefore, journalists had to attend the formal interview at another time, outside the study scenario where possible. Only three of them refused to do so claiming “lack of time”; those interviews were then carried out in the newsroom.

I did not enter the newsroom with strictly planned activities, but with guidelines, considering hypothesis, objectives of the study, bibliographic analyses and the interviews previously conducted. I also explored the field before obtaining formal permission to access the newsroom. That visit was made possible thanks to a union representative and it was useful to elaborate a draft of the working place, to observe spatial disposition of the working and leisure places, and the technology as well.

Formal access was possible thanks to the assistant editorial secretary. Given the professional background of this person, his hierarchy in the management chain and his permanent contacts in the news-

room, his role as gatekeeper was crucial. Except for the limited number of observation sessions, there was no impediment nor censorship on the part of the management; in this sense, the observations were based on the circumstances of the working routines, characteristic of a news media, in the bonds created with the social actors and in the subjectivity as well as in the limits as a researcher.

In addition to get acquainted with the field through first-hand experience, the observations facilitated the contact with primary sources which at first were left out from the selected sampling. Apart from that, it allowed for the corroboration of interpretations and information processes obtained from in-depth interviews with key actors in the productive process.

## 5. Metrics in *La Nación* (“Work Code”)

Metrics exist since the digital world was born. In 1995, when *La Nación* presented its digital version, technically, the number of times articles were read could already be checked (Retegui, 2017). However, no customization standard of information based on demand trends existed as it did during the last decade: metric tool employment generated a divergence in newsroom organization, a tension between what Boczkowski and Mitchelstein (2013) called “the logic of the profession” (based on the prevalence of traditional newsroom criteria) and “market logic” (based on consumers’ preference recognition, related to non-public affairs topics).

“Audience analytics refer to the systems and software that enable the measurement, collection, analysis and reporting of digital data pertaining to how content is consumed and interacted with” (Zamith, 2018, p. 421). They include algorithms that record data requests and capture a range of user actions. There are several systems of this type: *Chartbeat*, *Google Analytics* and *Parse.ly* are among the most common today, and are often used together.

In the next lines, the different metric systems used in the newsroom of *La Nación* are progressively presented until reaching the current model called *Score*, an audience analytics of its own design. This journey cannot be understood without considering the context of the intricate transformations of media industries driven by digital change.

The first system of metrics that was applied in the newsroom of *La Nación* was the *click tracker*, which enables to calculate the Click-Through Rate (CTR) of each article and the reading time of the audience. This introduction was made in 2009, the same year that *La Nación* unified newsrooms (print and the online newsrooms).

The *click tracker* was only used by web editors until 2011. Since the arrival of the first editors acquainted with *search engine optimization* (SEO), this tool was provided to the whole newsroom staff, and so all journalists and designers began to use metrics in their news productions. The SEO had landed in

*La Nación*'s newsroom with two objectives in mind: on the one hand, to optimize the digital content in *lanacion.com*, in order for the articles to be indexed by search engines like Google and thus to obtain a good position in users' search results. The second objective that the SEO editors had in mind was to advocate for and spread the use of metrics in a newsroom with traditional working practices, especially among the journalists who were more reticent to explore the 'prints' left by the public.

With *Chartbeat*, journalists can see different indicators: "how many visitors are on the site (and on each particular page) at a given moment; the average amount of time they have been there; which Internet sites referred them; how often they visit; where in the world they are located; what percentage of them is looking at the site on mobile phones" (Petre, 2015, p. 24). Apart from that users' data, the *Chartbeat* dashboard was designed in a way that it may be sympathetic towards journalists and to encourage optimism and the celebration of good news, as Petre (2015) argued in his ethnographic field in the company.

In 2015, *La Nación* incorporated the system created by *Parse.ly*, an audience company. All these analytics tools are inserted in the edition and publication system employed by *lanacion.com*, the Content Manager System (CMS), so that dashboards are ubiquitously present over news production processes, which is here known as "Work Code". In 2018, the new company management decided to add another metrics system *Score*; its analysis will be deepened in the section titled "The Score: Unclear Metrics and Processes".

### 5.1. Pressure from upper management positions ("Labor Code")

During the interviews and fieldwork, it was found that writers and editors-in-chief increasingly incorporated metric logic into their work processes, in parallel to a greater prescription from *La Nación* direction about the management of audience analysis.

Distrust and resistance to work under metrics prescription were in general related to the idea of quantifying the effort and to produce according to demand, which subsequently affects creative production (Retegui, 2017), as well as to the special management which *La Nación* made of the metrics. All this generated, according to some journalists, stressful and frustrating situations.

"I was congratulated many times as my column ranked top but it turned out that the article had not been read. It ranked top since it had interesting titles. To some extent, I got used to this logic, as I want my articles to be read, but I do not accept this as the sole yardstick. And it occurred to me the other way around; I devoted too much effort to just one article which from a journalistic perspective was far too valuable, but as it was not being read, they kept it on the home page just half an hour. Only imagine how pressuring this could be for your job not to mention

your job spirit". (Laura, personal communication, 2 May 2013)

The previous testimonies are examples of how self-control mechanisms are manifested ("Labor Code"), as long as writers recognize that the work subjected to the use of metrics affects emotional aspects; and despite their criticisms, they kept an eye for the use of metrics and then put them into practice.

For a SEO editor, by contrast, metrics use is fundamental to their daily production and as a ludic tool:

"They know how many articles each journalist has written and whether they've been effective. It's a ludic thing: one's article did well; other's didn't. The other day an editor wrote an article about health, with a very good title and showed a high score, and I gave him a call to congratulate him as he had not been at work that day. If it is the most read article, you have to congratulate them.

[And what if it is not the most read, but it has been very well produced, providing sources, well written, do you congratulate them?]

Hmm, it's a pity to have been working for about a month and your article doesn't get good results. It doesn't work for me. It's not a good article". (V. Pombinho, personal communication, 4 October 2015)

The editor admitted registering who came up with ideas, how much each editor wrote and how effective their articles resulted. Quantity and success were measured considering metrics, which was made clear in the team work and referred by all journalists as ludic. Here, by contrast, it is viewed as control based on TIC application ("Work Code") and direct group control ("Labor Code"). This editor's articles were not read as the number of clicks showed. In addition to this, all workmates have access to that data, not only as they observe others' metrics, but also because each journalist's productivity is publicly shown. Why does tension arise when production is quantified? To some extent, it is due to cultural industries features, that is the level of cultural insertion in the industry field. In order to design a car, first a prototype is needed, that is to say, carrying it out from a predefined model, whose result can be anticipated and the time economies can be measured, beyond any error or unexpected problem.

Instead, producing a cultural product involves an a priori work which is predominantly random.

Even though this research has not found any productivity in terms of working hour output (number of products per working hour), it did show the existence of quantitative criteria regarding individual efficiency which is registered, analyzed and exposed. 'I attended several meetings with my editors to discuss my low productivity and they showed me the metrics results' (M. Giambartolomei, personal communication, 9 September 2015).

On the other hand, many writers and editors admitted having worked unpaid extra hours to guarantee widely read and successful articles. "I have worked extra hours many times to fulfill all my duties. This obviously is not paid, not even appreciated"

(B. Struminger, personal communication, 17 September 2015).

In this sense, the journalists considered that the application that management made of the metrics conditioned the possibilities of doing creative work. The definition of creative work varied among the interviewees although a pattern that I noticed was the link between the product heterogeneity and uniqueness and the fact of giving it the author's stamp (Retegui, 2017). Creative work is considered highly uncertain, subject to trial and error, hard to be controlled over time and where subjectivity is essential (Dantas, 2006; Hesmondhalgh and Baker, 2011; Zallo, 1988).

## 5.2. The Score: Unclear Metrics and Processes

Designed in 2018 by data analysts and engineers at *La Nación*, the *Score* measurement system is a per-

formance indicator of digital content in high frequency users, operating on a number of variables. Journalists also participated in its design.

“We knew that too many people resisted to the *click bait* and that's why other variables have been considered, like web consumption time or user interaction”, claimed F. Pikholec, Audience Development Manager (personal communication, 17 May 2018).

At first, there were more than two hundred variables. Finally, they left about twenty pure variables. The algorithmic and mathematical combination of all these variables is translated into a score (by author, by content and by section). The measurement determines thresholds for each content, by means of a graphical representation of the average data group distribution.

In summary, the *Score* consists of four groups of variables (see figure ‘*Score Model*’):

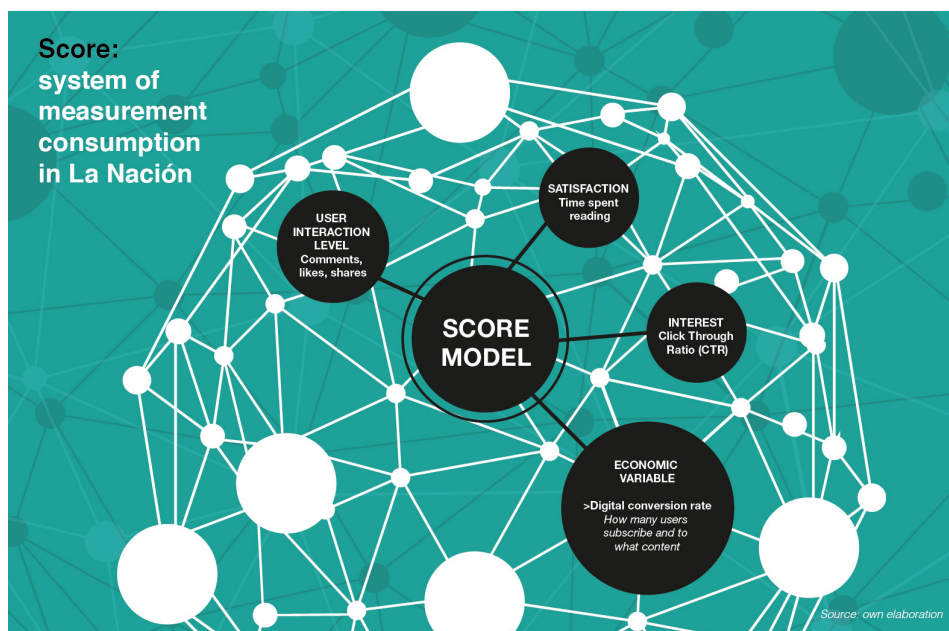


Figure 1. Score Model

5.2.1. The group of variables called “Interest” basically measures the click rate (how many users actually consume that content);

5.2.2. The group of variables “User Interaction Level” (comments, likes, shares);

5.2.3. The group called “Satisfaction” measures, in quantitative terms, the time a user spends on content. It combines consumption time, theoretical consumption time and news article's permanence time on the webpage. Theoretical consumption time refers to the number of minutes that ‘in theory’ it would take to read an article, considering the number of characters in a text, video duration and diagrams complexity (whether they are part of the content or not). “This is not a very sophisticated tool, but it is useful to have an approximation and those texts

trebling the theoretical time are dismissed”, explained the Audience Development Manager;

5.2.4. The group called “Economic variable” allows, on the one hand, to quantify the contents and journalists who succeed in turning users into subscribers; and on the other, to compare subscribers' consumption in relation to non-subscribers (registered in the database but not paying).

The *Score* is based exclusively on quantitative aspects: how many clicks, reading time spent on the news article, number of shares. As Cathy O'Neil (2007), mathematician and researcher, claims, these models dismiss certain information since in order to create a model, some selections regarding what is important to be included must be made. This entails simplification. One of the interviewed journalists stated:

“The Score model attempts against the operational level. I spent three months working with an interactive Boca-River design: match by match, date by date, because I like data journalism. That three-month job was given six hours of life on the homepage. And the explanation they gave me was that I didn’t score well” (P. Lisotto, personal communication, 12 July 2019)

One doubt regarding scoring systems in general is related to the unclear or incomplete information that is measured. In the case analyzed here, several journalists agreed on a complaint: the complexity of synthesizing the formula that determines author scoring or article scoring. A writer in *La Nación* stated:

“If you ask for your score balance, they give you a detailed overview of the variables (Satisfaction, Interests and Interaction) and the final beta coefficient. We know whether that score is good or bad in relation to the articles included in your section, but we don’t know how that scoring is calculated” (Tania, personal communication, 12 February 2019)

In the same way, the audience manager stated:

“It is an open methodology. They know the components, an estimated formula. There is no secret, but the calculation is complex to be measured, because before doing the maths there is a data process, where certain information is excluded like the cases where theoretical time is trebled. That data processing, before the calculation, is not recognized by the author” (F. Pikholt, personal communication, 28 February 2019)

On the other hand, the “Economic variable” is increasingly pervading the metric system, but it was not discussed with journalists in the design and testing phase, as it was done with the other groups of variables. Since 2017, *La Nación* has implemented the use of a metered paywall, a digital monetization system. Unsubscribed readers can only read a limited number of articles without cost. In that sense, the measurement is related to the digital business model in the company.

*La Nación* current management aims for the *Score Model* to become “a management tool for all sections”, acknowledged the General Secretary of the Editorial Office:

“In *La Nación* we are starting a new era, the algorithm battle, and that is a challenge: what position will artificial intelligence be assigned and what position will the editor be assigned? From the point of view of an editor, performing a role which involves competing for numbers, I wonder how many battles they will lose because they need to communicate something. It is the reader that puts me under pressure. If they are not interested about what I do, to whom am I writing?” (J. Del Río, personal communication, 26 April, 2019).

The economic factor is relevant according to the changes mentioned by the General Secretary of the Editorial Office: “Today the hardest part is sustaining structures that, in traditional media like these,

are large and expensive”. At the end of this article, *La Nación* had approximately 300 permanent press workers. According to its delegates, the company staff was reduced by 20% between 2019 and 2020. Fear spreads in the newsroom, in a complex economic context for the company and the media ecosystem in general. This productivity evaluation is feared to be taken as the justification to dismiss reporters with low scores or to impose unexpected disciplinary actions.

In this sense, two editors-in-chief pointed out that there is a tension between the editorial line and the business logic:

“The management asks us to make quality content, but then you have a team dedicated to produce many light articles that measure well. In the end, the Score is more sophisticated, but it yields a similar result to the other metrics”. (N. Casesse, personal communication, 23 June 2020)

“Screens are installed everywhere, showing news stories rankings in real time, with author’s full names. Every day reporters gather to deliver a presentation for the person in charge of the section. The topic of the day is discussed, what happened and which news stories presented the highest scores at the beginning of the day. You are asked to write articles according to the most popular searches on Google or social media” (N. Balinotti, personal communication, 13 February 2019).

According to him, at some point, a prize was intended to be given as a reward for the best-read article of the week. This did not last long, but they tried to do it. To the question whether there was any kind of “punishment”, apart from a reward, a writer claimed that there was, specially to those reporters who had spent long hours, writing a worth reading article, which was not even published in the home page, as the only aspect that matters is that news stories “score”.

The need to increase the number of digital subscribers is increasingly being discussed in management meetings. At this point, the economic factor was incorporated to the *Score*. Even though the company has provided no data about this variable, (for example, how it would be applied, in what cases, what information is incorporated, what is discarded), some issues that involve future research are revealed: What real weight does that economic variable have? What will happen to those journalists who fail to convert users into subscribers? How does it affect the content consumed by audiences?

## 6. Conclusion and Limitations

The introduction of metrics data in newsrooms cannot be understood without considering the digital context which has driven and that drives deep changes in the work processes occurring in media industries. In that context, this article focused on how a traditional media in Argentina, like *La Nación*, introduced and applied systems of consumption measurement in the newsroom

and how journalists internalized those changes. In line with Boczkowski, the analysis shows that technology plays a critical role in enabling transformations in journalistic practices, but it does not determine this pattern of variance. “By contrast, this pattern emerges from a combination of factors at the intersection of situated practices and contextual structures” (Boczkowski, 2010, p.: 60).

*La Nación* has increasingly introduced different metric systems in work processes. At first, it did hire metrics systems in international audience companies, like *Chartbeat* or *Parce.ly*. Also, strategically, *La Nación* designed and introduced its own model of consumption measurement; on the one hand, this was done to reduce the perceived discomfort that was present in the newsroom, especially linked to a predominance of the click, “a culture of the click” (Anderson, 2011). Also, it is related to its business strategy, the paywall.

The application of metrics brought to the surface what has already been studied by authors like Boczkowski & Mitchelstein (2013, 2015): the tensions between two logics, one logic that is commercial and applied by *La Nación*, and the other, a professional logic, connected to the obligations in the journalistic work. Many journalists acknowledged feeling frustrated and stressed at not being able to do their job with greater autonomy. The distrust and resistance to work under metrics prescription were in general related to the idea of quantifying the effort and producing according to demand.

However, they also acknowledged feeling “curious” and being aware of the measurements to confirm whether their articles attract a good number of readers, and some journalists even associated metrics with a stimulating ludic situation (Ferrer, 2017). Metrics can be a source of intense stress for writers and editors, but also one of validation and solace, as we can see in Petre (2015). While studying a long period in the newsroom in *La Nación*, I observed that these “curiosity” about metrics was increasing.

What are the main complaints about the new measurement system called *Score*? As the *Score* arrives at a certain result, many journalists consider its process a “black box”. In other words, even though journalists were able to participate in the *Score Model* design, truth is that only a few of them are familiar with the processing and interpretation of data which is done later.

As in Ferrer’s study (2017), it is found that social metrics—such as number of reads, likes, and shares—are combined with production metrics—such as number of articles written, frequency of production, and number of conversions (from users to subscribers) and translated into a metric version of journalistic performance.

The problem is not the algorithmic system per se. It is reasonable that the company supports data engineering and metrics’ virtues, as other companies in the rest of the world do in pursuit of a successful business model. The problem is to design articles with skewed data, unclear objectives or to measure only on quantitative terms a profession, which, even in a digital context, entails creativity.

It is observed that the coordination and control of work processes, based on the application of metrics (“Work Code”), did not respond to a rigid technical control, common in other economic sectors. This might be linked to the symbolic and random side that concentrates the journalistic work and to some autonomy required to obtain the raw material (the information). However, although it was not presented as a rigid technical control, it at least conditioned journalistic work and “punished” those who do not adjust to the metrics system, since relating journalistic content or even a news reporter to a success pattern; compensating only the articles with the highest scores; creating a “Big Brother” in the newsroom (with screens showing in real time the scores and their respective writers) affects journalistic work. The company may take this as an excuse to dismiss writers who do not fit to this mathematical system, apart from predicting their productivity. All online interviewees recognized using or having used the metrics to think and create content from the moment the registry was bleached. This is what we call the “Labor Code” based on the worker’s self-control and the editors-in chief’s simple control of writers.

In a context where job positions are being lost, like the one this newsroom is going through, whatever the management does with that data may become a source of concern for journalists. It is necessary to mention once more one of the main variables in the *Score Model*: “Economics variables” quantify the contents and journalists who succeed in turning users into subscribers. To what extent does that group of variables affect a journalist’s final score? Journalists themselves are in the dark about it and this is a doubt this article cannot cover.

In summary, the analysis of the metrics impact on newsrooms and journalists’ feelings “must be analyzed in their social, historical, and economic contexts, in order to understand the diffusion, acceptance, and use of a technology, which may then be used in myriad ways” (Zamith, 2018, p. 419). All this affects professionals in this industry, how they think and feel about their professional activity. It should not be forgotten that the media are cultural industries, therefore, journalistic activity (even in the data science era) shows characteristics (as the creative work) and processes that are too complex to be standardized and synthesized with a mere scoring system.

Although this research is based on a case study and does not allow generalities, the discussions can be extrapolated to the study of other media in the region. I consider that it is important to understand the productive base where news content for the public will be developed. The studies about metrics at journalistic work, though, have not shown a deep development neither in Argentina nor in the rest of the region. It also suggests the need for a theoretical and methodological triangulation for the analysis of the impact of metrics on current newsroom: combining analysis in work processes with content analysis, a pending issue in communication studies in Latin America and also in this article. Are metrics actually shaping content, and if so, how? There is much yet to explore and explain.



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