

Chapter 6 Data journalism practices during COVID-19 in the main Spanish newspapers: features of data-driven stories and the influence of the pandemic on newsrooms

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Abstract

This chapter examines data journalism stories published in *El País* and *El Mundo* (N=287). Through content analysis, the aim is to evaluate the importance given to stories about the coronavirus and to identify the characteristics of both the narrative and visual parts of the articles. In addition, focussed interviews were conducted with the data teams to delve deeper into the organisational structure and understand how the pandemic has influenced the production process. Amongst others, the results show significant differences in the practice of data journalism. *El País* publishes more in-depth stories with analysis and background, and more often achieves the optimum degree of transparency. In turn, data journalism at *El Mundo* seems to be relegated to the background. However, both teams agree that the coronavirus has transformed their routines, shortening the production process, and that the time limitation was compounded by the extreme disparity amongst the numbers and formats provided by the public administrations. *El Mundo* has an additional obstacle: it only has one person on staff dedicated to data, while the data team at *El País* has three staff members, which makes it impossible for *El Mundo* to go too deeply into the data.

Introduction

Information is an essential resource for citizens. It allows us to discover what is happening around us and is understood as a useful mechanism to guide and instruct the population, especially in complex situations in which its dissemination is of utmost importance (Casero-Ripollés, 2020). In this sense, the media play a key role in society. Through them, we are informed, and authorities use them as the main channel to

communicate relevant information (Fuller, Rice & Pyle, 2023). Therefore, its role in a crisis situation is decisive, becoming a basic element in mitigating uncertainty and assisting in the adaptation to the new scenario imposed by the crisis situation (Baraybar-Fernández, Arrufat-Martín & Rubira-García, 2021).

The first case of coronavirus in Spain was documented on 31 January 2020. On 14 March, the government published Royal Decree 463/2020, which marked the beginning of the state of alarm, which would last until 21 June. The disparity of numerical information available, the changes in methodological criteria in government reports and the inconsistencies in the numbers from the autonomous communities –each of which managed its own numbers– highlighted the work of the data journalist, a professional figure in charge of transforming large numerical sets into accessible stories (Gray, Bounegru & Chambers, 2012), thus generating value from the numbers.

During such crisis circumstances, which can include health, natural disasters, attacks and so on, the media become intermediaries between institutions and the population (Rosenberg, Syed & Rezaie, 2020). In addition, during these periods, interest in news and the degree of dependence on the media increases (Lewison, 2008; Westlund & Chersetti, 2015). Márquez-Ramírez et al. (2021) affirm that, in situations of change, expectations about the quality of journalism increase, expecting them to offer even more of a public service. On the one hand, they must provide up-to-date and sufficient information, while on the other hand, the content must be critical, rigorous, and accurate.

The information related to the aspects associated with these extraordinary circumstances is increasing exponentially, even taking over the pages and programming of the main media. As in previous pandemics, the health emergency caused by COVID-19 generated an overabundance of information. The numbers of infections, deaths, ICU beds occupied, those vaccinated, or the macro data on the economic impact have become the most salient parts of the media agenda. This pandemic has not only exacerbated the structural weaknesses of the media (García Avilés, 2021) but has also transformed the way news is produced, distributed and consumed (Lee, 2021). This emergency context required the constant monitoring of numbers to track the development and follow-up of the disease, which led to a considerable boom in data-driven content (Córdoba-Cabús,

García-Borrego, & López-Martín, 2020; López-López, Arias-Robles, & Abellán-Mancheño, 2023). Quandt and Wahl-Jorgensen (2021) define this as a starting point: “the pandemic opened up opportunities for some forms of special interest journalism, it spawned news journalistic projects and start-ups, and gave journalists news skills, tools and information sources” (p. 1202).

The main objective of this research is to explore data journalism practices in Spain related to the coronavirus pandemic. More specifically, this study aims to achieve the following objectives:

O1. Identify the characteristics of data journalism practices in Spain regarding the coronavirus pandemic through a content analysis of articles published in *El País* and *El Mundo*.

O2. Explore work routines and assess the impact of the pandemic on Spanish data journalism by conducting interviews with data team leaders.

Data journalism. Limitations and common features

The development of data journalism primarily depends on the context in which it arises (Howard, 2014). De Maeyer et al. (2015) categorise the challenges encountered in data journalism into three groups: within organizations, encompassing aspects related to time, resources, and workflows; external to organizations, involving issues such as the availability and format of data; and individual factors, including academic and professional training. Tabary, Provost, and Trottier (2016) highlight the reliance on government sources, while others, like Rogers, Schwabish, and Bowers (2017) emphasise the scarcity of resources and tools.

The practice of data journalism is constantly being updated and developed by the implementation of new tools and technologies in its production. This leads to discrepancies in the conceptualisation of data journalism and the lack of standardised criteria. However, previous research agrees on two main points: the strong dependence on data from institutional sources (e.g., Tandoc & Oh, 2017; Loosen, Reimer & Schmidt, 2017; Stalph, 2018; Young, Hermida & Fulda, 2018; Lowrey & Hou, 2018; Córdoba-Cabús, Huber & Farias-Batlle, 2023) and some degree of transparency in

terms of access to the numbers (e.g., Zhang & Feng, 2019; Zamith, 2019; Córdoba-Cabús & García-Borrego, 2021).

Of particular relevance in these stories are graphics, the use of which has been emphasised during the COVID-19 pandemic (Pentzold, Fechner & Zuber, 2021; Bisiani et al., 2023). Data journalism has focused mainly on the creation of graphs and infographics of various kinds, with the intention of presenting the numbers in an appropriate and simple way in almost real time. Given the pressure for immediacy in such situations, these graphics were mostly presented in static form or with limited interactive functions (Liu, 2021). Likewise, throughout this health crisis, journalists have also supported data collection tasks, trying to overcome the opacity created by the institutions (Desai et al., 2021).

Data journalism: the Spanish case

Although journalists have always used numbers to compile their pieces, data journalism differs from its predecessors –investigative, precision and computer-assisted journalism– because of the context in which it is developed, that of a fluid and changing environment characterised by the sheer volume of data available (Gray et al., 2012). This wealth of figures becomes material to compile, sift, contextualise, combine and communicate. In this sense, data journalism is understood as a hybrid tool, bringing together particularities of various branches of knowledge and adaptable to any subject area that allows for the management and interpretation of large amounts of numbers, as well as their dissemination to the public in an appropriate manner (Bradshaw, 2012; Coddington, 2015).

Data journalism has achieved prestige and renown on an international scale, making its way into most newsrooms in recent years. In Spain, the first glimpses of data journalism did not appear until 2011, at the hand of organisations detached from traditional media. It was in 2013, in parallel with the approval of the Law on Transparency, Access to Public Information and Good Governance (19/2013), when the first publications of this type were registered in media companies, specifically in *El Confidencial*. This was followed by others, such as *El Mundo*, in 2015. However, the main general-interest daily newspaper in Spain, *El País*, did not establish a specialised team until 2017, and the public broadcaster (RTVE) set one up in 2019. This process took longer in Spain, in

part owing to the lack of legislation regulating transparency and access to information, as well as the low interest and investment from the media themselves (Arias, Sánchez & Redondo, 2018).

To explore data journalism and its implementation in Spain regarding the coronavirus pandemic, we formulated the following research questions:

RQ1. What are the features of data journalism stories published about the coronavirus pandemic in *El País* and *El Mundo*?

RQ1a. How prevalent is the coronavirus in data journalism articles published in *El País* and *El Mundo*?

RQ1b. What are the most common narrative and visual features of data-driven stories about Covid-19 published in *El País* and *El Mundo*?

RQ2. How is data journalism practiced at *El País* and *El Mundo*?

RQ2a. How are data teams structured at *El País* and *El Mundo*?

RQ2b. How has the pandemic affected the data journalism production process at *El País* and *El Mundo*?

Methodology

This research employed a combination of techniques. First, a content analysis was conducted to understand the characteristics of data journalism published. Subsequently, it was complemented with in-depth interviews to examine how data journalism is practised in newsrooms, seek justifications for these characteristics, and discover the influence of the pandemic on the production process.

Content analysis

A content analysis was carried out on the data journalism pieces published in the online editions of *El País* and *El Mundo* during 2021. A total of 287 pieces were analysed. The

selection of these Spanish media was determined by the fact that these hybrid newspapers, with online and print versions, are the most trusted by the population and have the greatest online reach (Reuters Institute, 2022). Web versions were chosen because they offer more opportunities for data journalism, such as interactivity. Examining the year 2021 –one year after the onset of the coronavirus pandemic–, would allow us to observe how the pandemic has influenced data journalism and the persistent coverage of the disease in published articles.

The codebook consisted of four blocks: record information (date, media, headline, section and link), story properties, data and visualisations (Table 6.1). In this regard, both the narrative and visual aspects would be addressed, with a specific focus on data, the primary foundation of the publications.

Variables	Options	References
Topic	Politics; society; economy and business; health, science and environment; education; sports; culture and arts; entertainment; other	Loosen et al. (2017), Tandoc & Oh (2017), Stalph (2018)
No. of sources		Knight (2015), Loosen, et al. (2017)
Sources	None; governmental; academic or expert; business people; civil society; culture, arts and sports; ordinary people; other	
Narrative style	Explanatory, exploratory, hybrid	Segel & Heer (2010)
Type of story	Just the facts, data-driven news, analysis and background, in-depth investigations	Rogers (2014)
Dimension	Past, present, future	Davenport (2014)
Focus	What, why, how	Davenport (2014)
Purpose	Inform, persuade, entertain, explain, explain, unknown, other	Gray et al. (2012)
Way of communicating	Visualisation, storytelling, social communication, humanisation, personalisation, utilisation	Bradshaw (2011)
No. of data sources		Knight (2015), Loosen et al. (2017)
Source	None; public institutions; private corporations; other organisations such as NGOs or research institutes; author's sources; filtering; other	

Transparency	No, source – No, methodology; Yes, source – No, methodology; No, source – Yes, methodology; Yes, source – Yes, methodology	Córdoba-Cabús & García-Borrego (2021)
Access to data	No, yes	
Methodology	No, yes	
No. of visualisations		Córdoba-Cabús & García-Borrego (2020)
Type	Tables or lists, static graphics, interactive graphics, maps, visual resources, animations, infographics, other	
Interactivity	No, yes	
Interactive functions	Does not have any, explore, connect, select, filter, summarise, reconfigure, narrate, play, customise, other	Schulmeister (2003); Yi, Ah-Kang & Stasko (2007); Boy, Detiene & Fekete (2015)

Table 6.1. Analysis variables, categories, and references.

A data matrix was generated with the data in SPSS (version 25.0) statistical software. To test for association between qualitative variables, the chi-squared test (X^2) was applied. In case of one degree of freedom, Yates's correction for continuity was applied. For quantitative variables, considering the violation of normality (according to the Kolmogorov–Smirnov test) and sample size, the nonparametric Mann–Whitney U test for independent samples was used. In both cases, the confidence level was set at 95%. The intra-coder reliability – only one author was encoding – ranged from 0.96 to 1 (Holsti)/0.87 to 1 (Krippendorff's alpha).

In-depth interviews

In-depth interviews were conducted with the coordinator of the data unit at *El País*, Daniele Grasso, and the person in charge of data journalism pieces at *El Mundo*, Gabriela Galarza. For the interviews, a questionnaire of 20 items grouped into four blocks was used: (a) the team, (b) published data stories, (c) access to information and cost-effectiveness and (d) the status and future of data journalism. The interviews, conducted in December 2021, lasted approximately 75 minutes and were conducted by

using the Google Meet tool. The interviews were recorded for transcription and analysis.

Results

Properties of the data journalism published in El País and El Mundo

During 2021, a total of 287 data journalism pieces were published in the main Spanish hybrid newspapers (*El País*, 161; *El Mundo*, 126). The predominant theme in both newspapers was health, science and the environment (34.8%), followed by politics (27.2%) and the economy (27.2%). They coincide in giving more space to data related to the COVID-19 pandemic: of the total number of pieces, 76 (26.5%) deal with this issue (*El País*, 47; *El Mundo*, 29).

A total of 56.6% of the pieces incorporate personal sources when the focus is on the COVID-19 pandemic. However, the analysis shows that not incorporating them at all is also common (ME 0, SD 2.02), and *El País* and *El Mundo* make very similar use of this type of source (ME_{EIPaís} 0; SD 2.06; ME_{EIMundo} 0; SD 1.98). When they were included, they mostly resort to academics (30.3%), representatives of civil society (19.7%) and institutions (6.6%).

The results show significant differences in the narrative structure of the stories ($X_y^2[1, 76] = 8.413; p < 0.01; ES 0.333$). *El País* opts for a hybrid narrative style (74.5%) in which the reader has a certain level of freedom to navigate through the content, while *El Mundo* opts for a more restricted structure, in which the author guides the reader through the piece at all times (51.7%).

As presented in Table 6.2, most of the projects focus on presenting news information in the public eye on the basis of the numbers (55.3%). However, there are dissimilarities between the newspapers, especially in terms of the depth of analysis and explanation of contextualisation. *El País* opted on more occasions for pieces with an exhaustive examination of the data accompanied by detailed information (42.6%). In *El Mundo*, meanwhile, there is an abundance of work limited to presenting public data in graphics (31%).

Type of story	<i>El País</i>	<i>El Mundo</i>	Total
Just the facts	2.1%	31%	13.2%
Data-driven news	53.2%	58.6%	55.3%
Analysis and background	42.6%	10.3%	30.3%
In-depth investigations	2.1%	–	1.3
$X^2[3, 76] = 18.250; p < 0.001; ES 0.490$			

Table 6.2. Types of data journalism stories.

Differences in the type of story have an impact on the size of the publication. Thus, although the projects were dedicated to covering current affairs (98.7%), there were notable differences between *El País* and *El Mundo* ($X_y^2[1, 76] = 6.618; p < 0.01; ES 0.327$). Grupo Prisa's masthead more frequently incorporates elements from the past (in 87.2% of cases, compared with 58.6% in Unidad Editorial). The focus of the work was to clarify what was happening (100%). To a lesser extent, they integrated the elements that motivated the event or situation (48.7%) and proposed possible solutions (13.2%). The main purpose of the data journalism pieces analysed was to inform (100%) and, to a lesser extent, to explain the content (57.9%). In these aspects, *El País* and *El Mundo* coincide.

Likewise, they also coincide in the way information is communicated. In general, the combination of narration (100%) and graphics (100%) was used. Only 25% of the cases detail how the data influence the population, that is, personalisation. On no occasion were actual testimonies used to represent the numbers.

In relation to the number of data sources incorporated, how both newspapers differ ($U = 282,000, p < 0.001$) can be seen. *El País* includes, on average, data from three different sources (M 3.48; ME 3; SD 3.43), while in *El Mundo* it is most common to present information from a single source (M 1.79; ME 1; SD 1.50). The main sources used were public sources (80.3%), followed by others such as NGOs, research centres or universities (64.5%), private corporations (15.8%) or those collected by the newsroom itself (2.6%). It is in the use of data from other organisations where significant

differences are detected ($X_y^2[1, 76] = 9.350; p < 0.01; ES 0.379$). *El País* incorporated numbers from research centres and universities in 78.7% of cases, while *El Mundo* does so only 41.4% of the time.

The data journalism pieces reviewed identify the source of the numbers appropriately, but hardly incorporate additional information as to the structure of the data and their particularities. Only 28.9% meet the transparency ideal of mentioning both the source and methodological details. As presented in Table 6.3, *El País* reaches the optimum level of transparency on more occasions than *El Mundo*. In turn, these differences are evident when evaluating access to the raw data ($X_y^2[1, 76] = 7.824; p < 0.01; ES 0.357$). Although preventing access is most common (82.9%), *El País* allows access in 27.7% of cases. Meanwhile, *El Mundo* does not even consider this option.

Level of transparency	<i>El País</i>	<i>El Mundo</i>	Total
No, source – No, methodology;	–	3.4%	1.3%
Yes, source – No, methodology;	55.3%	93.1%	69.7%
Yes, source – Yes, methodology	44.7%	3.4%	28.9%
$X^2[1, 76] = 4.866; p < 0.05; ES 0.456$			

Table 6.3. Degree of transparency of data journalism.

In comparison, *El País* incorporated more graphics into its stories ($ME_{ElPaís} 4; SD 1.88; ME_{ElMundo} 3; SD 1.59$). Table 6.4 presents the dissimilarities between the mastheads according to the type of display added. *El País* opted mainly for interactive graphics (63.8%) and tables or lists (46.8%), while *El Mundo* opted for static graphics (55.2%). This result explains the differences with respect to the interactivity of the pieces ($X^2[3, 76] = 18.825; p < 0.001; ES 0.282$). A total of 78.8% of the stories in *El País* included interactivity, while in *El Mundo* 51.7% did.

Visualization	<i>El País</i>	<i>El Mundo</i>	Total	Independence test
Table or list	46.8%	13.8%	34.2%	$X_y^2[1, 76] = 7.281; p < 0.01$
Static graphic	31.9%	55.2%	40.8%	$X_y^2[1, 76] = 3.111; not significant$

Interactive graphics	63.8%	27.6%	50%	$X_y^2[1, 76] = 8.029; p < 0.01$
Map	27.7%	48.3%	35.5%	$X_y^2[1, 76] = 2.489$; not significant
Animation	2.1%	10.3%	5.3%	$X_y^2[1, 76] = 1.060$; not significant
Infographics	14.9%	13.8%	14.5%	$X_y^2[1, 76] = 0.000$; not significant

Table 6.4. Types of visualisations in data journalism stories.

In terms of integrating interactive functions, the findings show a preponderance of functionalities such as browsing (63.2%), filtering (27.6%) and selecting (19.7%). In this sense, *El País* and *El Mundo* make practically similar use of all functions (Table 6.5).

Interactive function	<i>El País</i>	<i>El Mundo</i>	Total	Independence test
Explore	74.5%	44.8%	63.2%	$X_y^2[1, 76] = 5.558; p < 0.05$
Connection	2.1%	–	1.3%	$X_y^2[1, 76] = 0.000$; not significant
Select	17%	24.1%	19.7%	$X_y^2[1, 76] = 0.212$; not significant
Filter	27.7%	27.6%	27.6%	$X_y^2[1, 76] = 0.000$; not significant
Summarise	8.5%	17.2%	11.8%	$X_y^2[1, 76] = 0.607$; not significant
Narrate	2.1%	3.4%	2.6%	$X_y^2[1, 76] = 0.000$; not significant

Table 6.5. Interactive features included in data journalism pieces.

Data units at El País and El Mundo

To understand the characteristics of data journalism published at El País and El Mundo, it is necessary to gain insights into the composition of the teams, their working methodology, and the role they play within the newsroom.

The data team at *El País* is made up of three people with very different professional profiles: an engineer, a programmer and data analyst, and a Spanish philologist. Despite the diversity of profiles, all three have journalistic training, principally through specialised master's degrees. This unit is part of the visual narratives team, a team of 14 people that includes positions such as web developers and computer graphic designers. Its role in the newsroom is interdisciplinary, serving not only as a support to all sections, but also as a generator of topics. This team works together, coordinating mainly with the developers. Each team member develops a specific part of the piece, but they are in constant communication, with daily meetings planned to review the piece together to ensure consistency.

The structure at *El Mundo* is quite different, as they only have one person on staff dedicated to working with numerical information. Gabriela Galarza, a journalist with a master's degree in data journalism, is in charge of the unit. She works with the graphics team, which is composed of a dozen professionals, generally linked to design. Like at *El País*, her role is also interdisciplinary, but she acknowledges that her workload comes mainly from assignments from other sections. In this case, there is a clear division of tasks, especially as regards technical functions such as programming or design. She assumes that she will usually work alone, taking care of the web version and leaving the paper decisions to the graphics team. In other words, the same topic is covered by different teams depending on where it is published.

Although the production process is adapted according to the project, the structure is practically similar in both mastheads. They coincide in identifying four key phases: (1) project selection: identification of a relevant topic and location of sources and previous information; (2) analysis of the numerical set: including data cleaning, analysis and interpretation; (3) adequacy and verification of the results: seeking advice and contrasting with experts to avoid errors; and (4) publication: selecting the appropriate tools for dissemination.

In addition to the subject matter, this process is influenced by the limitations faced by each of the media. *El País* insists that the main obstacles are the formats in which the public administrations provide the data and the lack of availability of certain numbers. At *El Mundo*, staff shortages as well as those issues previously mentioned are compounded by other factors such as the pressure for immediacy and management's lack of recognition of the value of data journalism. While obstacles at *El País* are solely external, at *El Mundo*, internal barriers also come into play. This underscores the significance that media outlets attach on data journalism. In other words, these limitations manifest in day-to-day works and provide justification for the characteristics of the data-driven stories.

The COVID-19 pandemic has significantly influenced the way data journalism is practised in the two selected media, with the main changes identified as the changing of the established professional routine and the shortening of production times. The time limitation was compounded by the extreme disparity amongst the numbers and formats provided by the public administrations. In addition to the national numbers, each autonomous community issued its own data compiled using its own methodologies. *El País* acknowledges that they had to do a lot of research and examine the methodologies in detail to find out what was behind these numbers and what data they had available. This allowed them not only to differentiate themselves from the other mastheads, but also to plan their own data collection, as was the case with the number of ICU beds available.

However, although these circumstances had an impact on both media considered herein, the transformation was more profound at *El Mundo*. The medium's management decided to relegate data journalism to the background, with the suppression of the unit and the displacement of these tasks to the graphics team. This situation is particularly striking, because at that time, *El Mundo* was the only media outlet that offered a higher degree related to this specialisation through which a large number of professionals in the sector in Spain had been trained. In January 2021, Gabriela Galarza joined its editorial staff as an intern and became responsible for data stories. These particularities, in addition to highlighting the notoriety and investment of the head office in this specialisation, have an impact on the level of project precision that could be achieved.

“Many times, I don’t have time to get to the level of depth that the topic would require, and I would like to spend more time on it in order to be more satisfied”, says Galarza.

Therefore, the excess of numerical information available led to the main hybrid newspapers in Spain using daily data journalism on a daily basis. The workload increased, which meant that they were dedicated, almost exclusively, to covering the pandemic.

Discussion and conclusions

A year after the start of the pandemic, COVID-19 continues to be the predominant topic in data journalism pieces in the Spanish media, ahead of even politics and the economy (RQ1a). This confirms the incidence of COVID-19 in major hybrid newspapers and certifies that data journalism is the quintessential specialisation for presenting content regarding this disease (Quandt & Wahl-Jorgensen, 2021; Bisiani et al., 2023; López-López et al., 2023). Likewise, these surveys reinforce the idea that data journalism began to gain ground in Spain with the arrival of the pandemic (Córdoba-Cabús et al., 2020). The results coincide with the idea that Córdoba-Cabús has already advanced (2020): that in this specialisation, the subject matter is conjunctural with the time of publication.

The content analysis also reveals the characteristics of the data journalism stories published and the main dissimilarities between *El País* and *El Mundo* (RQ1b). In this type of content, the incorporation of personal sources is infrequent. However, when they are included, experts in the subject matter are usually consulted. In terms of narrative structure, *El País* opts for a hybrid style, combining interaction with a static presentation (Córdoba-Cabús et al., 2023), while *El Mundo* opts for the explanatory, without granting freedom to the reader to navigate through the piece on their own (Loosen et al., 2017; Ojo & Heravi, 2018).

The projects mainly cover current issues with the intention of informing readers. Although the scarcity of in-depth investigations denotes the immediacy to which journalists are subjected, *El País* publishes more well-developed pieces with analysis and background information than *El Mundo* does. The most common way to present these stories is through narration and graphics (e.g., Loosen et al., 2017; Ojo & Heravi,

2018; Young et al., 2018; Córdoba-Cabús et al., 2023). This combination across all stories demonstrates the relevance of graphics in this specialisation, and how their use has been emphasised during the pandemic (Pentzold et al., 2021).

As in studies on other countries, the published projects are based on data from public institutions (e.g., Tandoc & Oh, 2017; Lowrey & Hou, 2018). However, *El País* usually combines more than two sources, while *El Mundo* usually presents data from a single source. A certain opacity is detected in their projects, since they tend to cite the source but not the methodology (e.g., Zhang & Feng, 2019; Zamith, 2019). *El País* meets the ideal of transparency on more occasions. This is mainly due to the lack of qualified personnel at *El Mundo* and the pressures to which they are subjected (Porlezza and Splendore, 2019; Córdoba-Cabús & García-Borrego, 2021).

In terms of graphics, *El País* opts for interactive graphics and *El Mundo* for static ones. These results coincide with the differences in narrative structure and are evidence of *El País*'s commitment to interactivity. However, in both cases, the interactive functions used are simple, that is, browsing, filtering and selecting, while trying not to distract the reader. As Appelgren (2018) pointed out, success lies in making the reader believe that they have control over the content, but it is always the author who decides what to show.

The in-depth interviews revealed significant differences in the configuration of the data teams of the two media (RQ2a). The main distinction lies in their composition; *El País* has 3 dedicated staff members and *El Mundo* only 1. In both cases the team plays an interdisciplinary role, but in *El Mundo* the workload comes mainly from its support to other sections, and in *El País* from the team's own topics. This limitation of personnel at *El Mundo* means that more specific functions, such as programming or design, are entrusted to the graphics team.

These differences became accentuated with COVID-19 (RQ2b). In addition to the changes seen in professional routines, which have shortened production deadlines and increased workload, the time pressure has increased. This transformation was much greater at *El Mundo*, which decided to eliminate their data team in the wake of the pandemic. While *El País* used data journalism to differentiate itself, *El Mundo* relegated

it to the background – the current head of the team joined in 2021 as an intern. These particularities have an impact on the precision of the projects they address, and show management's lack of recognition as to the value of specialisation; that is, in addition to the external constraints that all data journalists may face (for example, publication formats), in *El Mundo* there are also the internal ones previously mentioned in literature (Appelgren, Lindén & Van-Dalen, 2019).

In summary, *El País* demonstrates a clear commitment to data journalism, with a consolidated team and regularity in its publications, while *El Mundo* shows less predisposition towards data journalism and thus produces simpler pieces. This reinforces the idea that the practice of data journalism is conditioned by the medium in which it is carried out, and that the pandemic was a key moment not only for the recognition of this specialisation, but also for the reconfiguration of the production process and data teams.

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