

# Fighting disinformation through source management: a comparison between journalistic models in the context of COVID-19

Combatir la desinformación desde la gestión de fuentes:  
comparativa entre modelos periodísticos en el contexto del  
COVID-19

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## How to reference this article / Standard Reference.

Sanahuja-Sanahuja, R., & López-Rabadán, P. (2023). Fighting disinformation through source management: a comparison between journalistic models in the context of COVID-19. *Revista Latina de Comunicación Social*, 81, 446-473. <https://www.doi.org/10.4185/RLCS-2023-1914>

## ABSTRACT:

**Introduction:** The pandemic of misinformation has shaped the journalistic coverage of COVID-19, so it is interesting to see how different journalistic models have used source management as a quality criterion to address it. **Methodology:** This paper analyses the journalistic sources - from the indicators of number, identification and typology - used in 420 articles on the coverage of COVID-19 corresponding to four journalistic professional models: traditional press, digital native media, popular press and verification platforms. **Results:** The analysis reflects an adequate management of sources by the Spanish press during the coverage of the pandemic, mostly using a higher than standard number of sources; identifying them correctly in almost all cases; and using an adequate variety. Therefore, despite the clear predominance of official sources, there is also a notable presence of expert sources from the scientific and health fields. **Discussion and conclusions:** The quality of source management has contributed to fighting disinformation in the Spanish press, although there are important differences between professional models. Verification platforms are those with the highest quality standards when managing their information sources, which helps to reinforce key criteria in the fight against disinformation, such as verification, relevance, credibility and transparency.

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**Keywords:** Journalism; News sources; Quality; COVID-19; Misinformation; Professional models; Verification platforms.

**RESUMEN:**

**Introducción:** La “pandemia” de la desinformación ha marcado la cobertura periodística del COVID-19, por lo que resulta de interés ver cómo diferentes modelos periodísticos han empleado la gestión de fuentes como criterio de calidad para hacerle frente. **Metodología:** El presente trabajo analiza las fuentes periodísticas – desde los indicadores de número, identificación y tipología– empleadas en 420 artículos sobre la cobertura del COVID-19 correspondientes a cuatro modelos profesionales periodísticos: prensa tradicional, medios nativos digitales, prensa popular y plataformas de verificación. **Resultados:** El análisis refleja una adecuada gestión por parte de la prensa española de las fuentes durante la cobertura de la pandemia, utilizando de forma mayoritaria un número de fuentes superior al estándar; identificándolas correctamente en la práctica totalidad de casos; y empleando una adecuada variedad. Así, pese al claro predominio de las fuentes oficiales, se da también una presencia notable de fuentes expertas de los ámbitos científico y sanitario. **Discusión y conclusiones:** La calidad en la gestión de fuentes ha contribuido a hacer frente a la desinformación por parte de la prensa española, si bien se detectan importantes diferencias entre modelos profesionales. Las plataformas de verificación son las que presentan unos estándares de calidad más elevados a la hora de gestionar sus fuentes informativas, lo que contribuye a reforzar criterios claves en la lucha contra la desinformación como son verificación, relevancia, credibilidad y transparencia.

**Palabras clave:** Periodismo; Fuentes informativas; Calidad; COVID-19; Desinformación; Modelos profesionales; Plataformas verificación.

## 1. Introduction

The COVID-19 pandemic has presented the media with an unprecedented scenario, including an overload of information and a surge in disinformation. Several studies have analyzed the significant effects of the pandemic on the journalistic sector. At the international level, the social upheaval generated by the health crisis resulted in a considerable increase in the consumption of traditional media in 2020 (Casero-Ripollés, 2020) and an improvement in confidence indicators in the press (Newman et al., 2021). Citizens are being informed more frequently than before the pandemic (Masip et al., 2020), with a significant growth in the consumption of specialized information on science and health (Casero-Ripollés, 2020). However, since the end of 2021, there has been a decline in information consumption indicators and trust in the press in many countries, linked to the increase in disinformation on social media (Newman et al., 2022).

Given the context of information instability, this article examines the role of source management as an indicator of journalistic quality in COVID-19 coverage. It does so by comparing differences and similarities between four journalistic models and considering their crucial social function in combating digital disinformation. Specifically, the article addresses the management of sources by traditional newspapers, digital native media, popular newspapers, and verification platforms in Spain. Verification journalism has positioned itself as a critical tool in dealing with the so-called "disinformation pandemic" (Sanahuja-Sanahuja and López-Rabadán, 2022) by reinforcing the position of quality journalism through its methodology based on source verification. This, in turn, contributes to maintaining public trust in the media.

The objective of this study is to determine if different journalistic models have adhered to quality standards related to source management during the COVID-19 pandemic. To achieve this goal, the

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study uses the indicators of number, identification, and type of sources established by Casero-Ripollés and López-Rabadán (2013) as criteria for journalistic quality with respect to verification, relevance, credibility, influence, transparency, pluralism, and media participation. The methodology is updated and applied to a sample of 420 news articles on COVID-19 obtained through random and representative searches of eleven media outlets that represent the four analyzed models. The four Spanish verification platforms accredited by the International Fact-Checking Network (IFCN)<sup>1</sup> and included in the #CoronavirusFacts Alliance<sup>2</sup>: *Newtral*, *Maldita*, *AFP* and *EFE verifica*. And, on the other hand, the media with the highest *online* consumption according to the report Digital News Report Spain (2021): *El País*, *La Vanguardia*, *El Mundo*, *Eldiario.es*, *El Confidencial*, *20minutos*, and *Okdiario*.

The article is divided into three main sections. The first section (sections 1 and 2) reviews the state of journalism's role in combating disinformation in the COVID-19 context and establishes the objectives of the research. The second section (sections 3 and 4) describes the methodology and results of the study, which uses a proprietary content analysis model to evaluate source management based on number, identification, and typology. Finally, the analysis of the sample reveals significant trends in Spanish media coverage during the first 21 months of the pandemic (from January 2020 to September 2021), highlighting professional best practices, specialized coverage, and particularities among the four journalistic models analyzed, particularly among verification platforms.

The analysis carried out provides a global overview of the dominant voices in the informative narrative during the central two years of the COVID-19 pandemic, confirming the crucial role of sources in both the coverage of the pandemic (Mellado et al., 2021) and the fight against disinformation (Aguado-Guadalupe and Bernaola-Serrano, 2020). Two interesting information patterns emerge in a context of a severe health crisis like the COVID-19 pandemic: the prevalence of official sources and the increasing role of expert sources from the scientific and health fields. Furthermore, the results demonstrate that the number, reliability, and degree of specialization of the sources are key factors in ensuring the quality of journalistic content.

The analysis also provides a comparison of how different journalistic models have covered the pandemic, with evidence of high-quality source management by verification platforms. These platforms have reinforced their professional role in the face of the infodemic that has accompanied and influenced media coverage of COVID-19 (Almansa-Martinez et al., 2022).

### 1.1. Journalism and disinformation in the context of the pandemic

Since the first months of the COVID-19 pandemic, an unprecedented escalation of health misinformation generated through social networks and messaging applications has been detected (Salaverría et al., 2020). Despite the fact that disinformation is not a new phenomenon, social media have boosted the production and global dissemination of this type of invented news (Casero-Ripollés, 2020). Among different factors, many authors highlight that digital media facilitate a simple edition and manipulation of audiovisual content, and, subsequently, offer an optimal channel for its distribution in a fast, cheap and automated way (García-Marín, 2020; Martins et al., 2021). On this topic, Ireton and Posetti (2018) differentiate three types of information disorders: “misinformation” understood as deliberately false information; “erroneous information”, equally false, but transmitted with the conviction of its truth;

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<sup>1</sup> The International Fact-Checking Network (IFCN), founded in 2015 by the Poynter Institute, is the largest international network of fact-checking international network of fact-checkers: <https://www.poynter.org/ifcn/>

<sup>2</sup> Initiative promoted by the IFCN that brought together the work of more than a hundred international verifiers: <https://www.poynter.org/coronavirusfactsalliance/>

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and "bad information" understood as information of a restricted scope published with the intent to harm. And to deepen the concept of disinformation in the COVID context, Salaverría et al. (2020) use the term "hoax" for its explicit purpose of deceiving the public and define 4 types, from least to most serious, based on different coordinates of falsehood and willfulness: jokes, exaggerations, decontextualizations, and deceptions. At first, these authors detected all kinds of hoaxes linked to the COVID pandemic, but with a huge presence of science and health issues, mixed with political issues (Salaverría et al., 2020), hoaxes that easily spread through social networks and that led the media to intensify the fight with fact check tools, both their own and in alliance with data verification companies (Costa-Sánchez and López-García, 2020). Over time, false news about COVID-19 has reduced its relative importance within the set of hoaxes (to less than 25%), but maintaining very high visibility of the contents about vaccines and the vaccination process (Almansa-Martinez et al., 2022).

This "infodemic", or information overexposure generated by the health crisis, has made it difficult at many times for citizens to access reliable sources (Peña-Fernández et al., 2022). And, as a consequence of these trends, social concern about false and misleading information has increased significantly during the pandemic and remains at significant levels around the world today (Newman et al., 2022). In the specific case of Spain, concern regarding disinformation reached 67% of digital users and most acknowledge having been exposed to hoaxes related to the coronavirus or with political content (Amoedo et al., 2021).

The COVID-19 pandemic has presented an unprecedented challenge for journalism, as it has had to combat two powerful forces that undermine citizen trust: the dissemination of a massive amount of unverified data and the competitive tactics of pharmaceutical companies (Costa-Sánchez and Peñafiel-Saiz, 2022). In this context, the role of journalism has become crucial in transmitting verified information about essential activities and fighting against misinformation (Casero-Ripollés, 2020; García-Marín, 2020). Numerous studies have emphasized the vital role of reputable journalism in strengthening confidence in health issues, both prior to and during the COVID-19 pandemic (Catalán-Matamoros and Peñafiel-Saiz, 2019; Larrondo-Ureta et al., 2021; Alexandre-Benavent et al., 2020). Furthermore, these efforts must be effectively supplemented by public health communication campaigns (Malhotra, 2020; Thelwall, 2021). In Spain, it appears that although the responsibility for disseminating information has fallen on the health authorities and the media, the personal accounts of politicians have had the most significant impact (Peña-Fernández et al., 2022).

When analyzing the journalistic coverage provided by Spanish media during the pandemic, various scholarly works delve into the management of relevant journalistic spaces. Cantero-de-Julián et al. (2020), for instance, focus on the national press covers, detecting a progressive specialization in content and a commitment to frames oriented towards defining the problem and proposing health solutions. Other authors, such as Román-San-Miguel et al. (2020) in Spain and Gutiérrez-Coba et al. (2020) in Ibero-American countries, denounces the considerable visibility of false news in the press at the onset of the pandemic, particularly in relation to political news. Notably, the institutional treatment offered by TVE in television coverage stands out, emphasizing service messages over sensationalism (Rosique and Crisóstomo, 2022). The adaptation of journalistic routines to this health emergency context has resulted in significant changes, such as limitations in direct access to sources, increased use of technologies in news gathering and production, and strengthened coordination meetings (Greene-González et al., 2022). Furthermore, quality media or legacy media's positive role in the pandemic is widely recognized, which has led to increased credibility and citizen trust, particularly regarding the COVID-19 vaccination process (Larrondo-Ureta et al., 2021).

## 1.2. Management of sources and analysis of journalistic quality

Sources of information play a crucial role in journalism (Casero-Ripollés and López-Rabadán, 2013). They serve as a vital informative component, providing new data on current events and situations. Furthermore, the testimonies of experts and social actors enhance the relevance and credibility of journalistic content (Casero-Ripollés and López-Rabadán, 2013, p. 73). Therefore, sources represent a fundamental element in the media's process of social construction of reality (Grossi, 2007), with some authors even asserting that without sources, journalism would not exist (Dimitrova and Strömbäck, 2009). Given their social function and their ability to influence the final outcome of a news story, sources are directly linked to the quality of information (Gutiérrez-Coba, 2006; Franklin and Carlson, 2013).

In an effort to outline the use of sources as criteria for journalistic quality, Casero-Ripollés and López-Rabadán (2013) establish a series of internal and external indicators to enhance their scientific analysis. The internal indicators relate to aspects of the production process, and five factors are identified: "professional status" to access sources; "verification" from multiple sources; "transparency" through full identification; "relevance" based on the professional prestige of the source; and "uncertainty reduction" through efficient access to sources. On the other hand, four external indicators focus on the effects caused by the information: greater "credibility" based on the number of sources used; "influence" by access to relevant sources; "pluralism" based on the diversity of social actors used as sources; and "participation" based on the possibility of accessing civil society sources that digital technologies allow. However, the authors point out how journalistic dynamics have tended to prioritize official and governmental sources in news due to factors such as demands for speed and content renewal, as well as the legitimacy offered by these sources, along with their professionalization and easy access.

In recent years, a growing body of literature has explored the relationship between source management and information quality, as well as journalistic specialization. Specifically, scholars have examined the use of sources in various fields of journalism to better understand the factors that contribute to high-quality journalism. Several studies have identified the importance of a high level of source diversity in local journalism (Rodríguez-Rey et al., 2015). However, despite the availability of nearby citizen and expert sources, institutional sources continue to dominate in local reporting (Pérez-Curiel et al., 2015). Furthermore, in specialized areas such as health journalism, scholars have emphasized the need to prioritize scientific sources and to activate quality verification processes to combat digital misinformation (Saavedra-Llamas et al., 2019). In the realm of emergency and crisis coverage, Mayo-Cubero (2020) cautions against prioritizing the use of official government sources over unofficial sources, such as victims and those affected by crises. At an international level, Mellado et al. (2021) analyzed the use of sources in a sample of Chilean media during the first year of the COVID-19 pandemic. The findings reveal a predominance of political sources, followed closely by health sources, with citizen and academic-scientific sources being remarkably less represented. These studies demonstrate the significance of source management and its impact on information quality in journalism. By identifying the factors that contribute to high-quality journalism, scholars and practitioners alike can work towards improving the standards of journalistic practice.

## 1.3. The role of verification platforms in the information battle against COVID

Verification platforms have now accumulated nearly two decades of professional experience in the United States. FactCheck.org was launched as a pioneer in 2003, followed by PolitiFact by Poynter and Fact Checker by The Washington Post in 2004, with all platforms aimed at verifying proposals within an electoral context (Luengo and García-Marín, 2020). In Spain, *Maldita* (2013) and *Newtral*

(2018) stand out as prominent examples among the platforms that have emerged in recent years, with *EFE Verifica* launched by the EFE agency in 2019. Globally, the most significant growth in this type of platform occurred between 2012 and 2017 (Vázquez-Herrero et al., 2019), coinciding with two initiatives: the creation of the International Fact-Checking Network (IFCN) by the Poynter Institute, which serves as the primary global network of fact-checkers, and the institutional support of the European Commission (EC) for this type of platform as a critical tool in the fight against disinformation (European Commission, 2021). Verification platforms have since continued to expand, with even greater intensity after the COVID pandemic. Currently, over 304 projects focusing on fact verification are identified, nearly a hundred more than in 2019 (Stencel and Luther, 2020; Cotter et al., 2022).

The rise of digital misinformation poses a significant social and informational threat to democratic societies (Pérez-Curiel and Velasco-Molpeceres, 2020). However, it also presents an opportunity for journalism, with the aid of technological advances, to enhance its procedures, especially in source management, to ensure greater accuracy in its content (Díaz-del-Campo-Lozano and Chaparro-Domínguez, 2018; López -García et al., 2021). The COVID-19 infodemic has been a critical moment for the professional establishment of verification platforms in Spain (López-García et al., 2021). This professional development is evident in the significant increase in their activity since 2020 (Aguado-Guadalupe and Bernaola-Serrano, 2020). Most notably, the effectiveness of these platforms in combating health misinformation generated primarily through Twitter and WhatsApp and reducing the impact of false information regarding vaccination is noteworthy (Almansa-Martínez et al., 2022). Other notable outcomes of the professional growth of these verification platforms are their ability to establish engagement (connection and interactivity) with their social media followers during the pandemic (Ramón-Vegas et al., 2020), their proposal to include verification competencies content in communication study plans (Herrero-Diz et al., 2022), and the emergence of international collaboration networks among Hispanic verifiers (Sánchez-González et al., 2022). Although research confirms the generally positive role of the Spanish media in providing information during the COVID pandemic, there is still a lack of comprehensive research that delves into the source management practices and compares the associated quality outcomes between different professional models. This study aims to address this gap by exploring these aspects.

## 2. Objectives

The primary objective of this research is to analyze the information source management conducted by Spanish media during their coverage of the COVID-19 pandemic. This is seen as a crucial indicator of journalistic quality in the fight against health-related misinformation. As a result, the following specific objectives arise:

- O1. Review the number of sources per news item and detect patterns regarding the associated quality indicators (verification, relevance, credibility, and influence).
- O2. Analyze the type of source identification offered and draw conclusions regarding the associated quality indicators (transparency, credibility, influence).
- O3. Review the typology of sources and identify patterns related to the quality indicators(pluralism, participation, and influence).
- O4. Compare the management of sources among the four journalistic models present in the sample (traditional newspapers, digital natives, popular newspapers, and verification platforms) and identify their main differences and similarities.

O5. Deepen the management of sources carried out by verification platforms as a key journalistic practice within their professional consolidation in Spain.

### 3. Methodology

The research technique used in this study is based on a content analysis model developed in-house, which enables a structured examination and documentation of the sample, as well as the identification of significant patterns and instances (Eiroa and Barranquero, 2017). This model is rooted in the methodology developed by Casero-Ripollés and López-Rabadán (2013) which organizes the analysis of information sources based on the scrutiny of three variables (number, identification, and type), and links them with a set of quality Criteria that are both internal and external to the journalistic profession. The analysis indicators, modified by Sanahuja-Sanahuja and López-Rabadán (2022) to suit the COVID context, are compiled in summary table 1.

**Table 1.** Connection between analysis indicators and criteria for journalistic quality.

Variable	Associated quality indicator	Classification
Number of sources	Verification Relevance Credibility Influence	Shortage of sources (0 to 1 sources)
		Professional standard (2 to 3 sources)
		Four sources
		Five sources
		More than five sources
Identification	Transparency Credibility Influence	Correctly identified source
		Partially identified source
		Veiled Source
Typology	Pluralism Participation Influence	Collective: - Media and platforms - Organizations and institutions - Companies
		Personal: - Officials and policies - Economic - Scientific - Sanitary - Civil society - Other experts
		Documentary

**Source:** Updated indicators of Casero-Ripollés and López-Rabadán (2013) adapted to the context of COVID-19 by Sanahuja-Sanahuja and López-Rabadán (2022).

The sample design is based on two professional and temporal criteria. On the one hand, 11 relevant case studies have been selected from the media system. Firstly, the sample includes the seven most consumed newspapers in Spain, according to the Digital News Report Spain 2021, in their online version. Specifically, the sample comprises of three traditional reference newspapers (*El País*, *El Mundo*, and *La Vanguardia*), two native digital media (*ElDiario.es* and *El Confidencial*), and two popular press media (*Okdiario* and *20Minutos*). On the other hand, the sample also includes the four

most consolidated verification platforms in Spain (*Newtral*, *Maldita*, *AFP*, and *EFE verifica*), which are part of the International Fact-Checking Network and participate in the #CoronaVirusFactsAlliance initiative. This selection enables a balanced comparison between different professional models and editorial lines.

Regarding the temporal aspect the sample compares the information coverage of two key periods within the health crisis caused by the pandemic. On the one hand, the focus is on the articles published in the Spanish media on the vaccination process against the virus (from December 2020 to September 2021). After a search in Google News, a strategic sample of 320 pieces of information has been built taking into account a regular distribution over time. To do this, the first 32 pieces of information of each month corresponding to the media object of the sample were selected from the search in order of relevance of news items that contained the term vaccination related to COVID. In order to obtain a weighted representation of all the media, a range of between a minimum of 3 and a maximum of 13 pieces of information was established to guarantee a sufficient presence of all of them. The sample is completed with a comparison regarding the use of sources by the four verification platforms selected throughout the first year of the pandemic (2020). In this case, of the 916 news items published in 2020 by the four Spanish platforms accredited by the International Fact-Checking Network (*Newtral*, *Maldita*, *AFP* and *EFE verifica*) and included in the #CoronaVirus-Facts Alliance initiative, 100 of them were selected randomly and proportionally for months. In this way, the final sample analyzed covers a period of 21 months that includes different moments in the evolution of the COVID-19 pandemic, including a total of 420 newspaper articles distributed as shown in summary table 2.

**Table 2.** *Sample analyzed corresponding to the different models of newspapers.*

Number of information analyzed by sources	Professional Model	Final Sample
<i>El País: 99</i>	Traditional Media	174
<i>La Vanguardia: 44</i>		
<i>El Mundo: 31</i>		
<i>Eldiario.es: 50</i>	Digital native media	80
<i>El Confidencial: 30</i>		
<i>20minutos: 36</i>	Popular Press media	66
<i>Okdiario: 30</i>		
<i>Maldita: 68</i>	Verification platforms	100
<i>Newtral: 24</i>		
<i>AFP: 7</i>		
<i>EFE verifica: 1</i>		

**Source:** Authors' original work.

The developed analysis firstly offers an overview of the sources' usage in the Spanish written media's pandemic coverage. Secondly, it complements the overview with a comparison of the significant similarities and differences in source management between the different models. The substantial differences identified in the verifiers' case lead to a more specific comparison between this model and the rest of the media, aimed at specifying the fundamental characteristics of a new and booming professional mode.

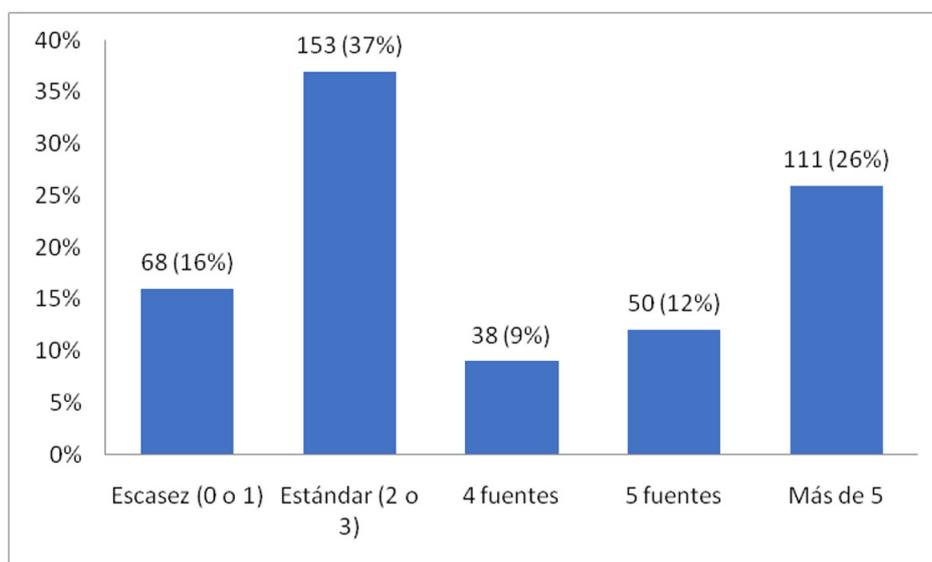
## 4. Results

### 4.1. The management of sources is crucial in creating high-quality media coverage

#### 4.1.1. Number of sources exceeds professional standards

In regards to the first objective of reviewing the number of sources, the analysis of 420 articles revealed a total of 1,774 sources, including collective, personal, and documentary sources, which amounts to an average of 4.2 sources per piece of information. The study shows a general trend towards appropriate source management in terms of quantity, as only 16.2% of the articles had a shortage of sources. Therefore, in most of the analyzed information, there is a correct number of sources, which is defined as a standard number or higher. Based on the established categories by number, the majority of the articles (37%) had a standard number of sources, using between two and three sources. Out of the 420 analyzed articles, 153 had two or three sources, which would place them at a sufficient standard regarding quality criteria, such as verification, relevance, credibility, and influence. The percentage of articles that exceeded this standard was even higher, with 47% of articles using four or more sources: 9% had four sources, 12% had five sources, and 26% used six or more sources. The articles with the highest number of sources were those with more than five sources, with 932 sources used in articles with six or more sources, 240 in those with five sources, 164 in those with four sources, and 377 in those with two or three sources. Only 61 sources were used in articles with one or no sources, with the latter being the case in 68 articles, of which 61 had one source, and the remaining seven had none. See figure 1 for more details on the number of sources.

**Figure 1:** *Number of sources used per article.*

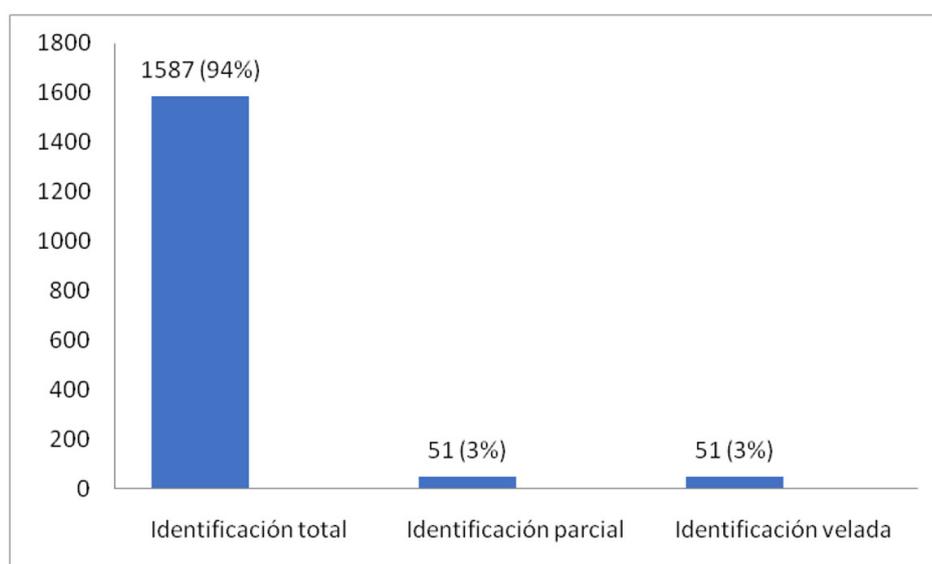


**Source:** Authors' original work.

#### 4.1.2. Accuracy and transparency in source identification

Regarding this second variable related to the second objective, the general trend in the media has been the total identification of the sources used in the coverage of the pandemic and the vaccination process. This has been the case in 94% of the 1,774 sources used. Of the remaining sources, 3% have been partially identified and the remaining 3% appear as veiled sources. In some cases where sources are unidentified, they are anonymous individuals from civil society or healthcare professionals who provide their testimony. At times, statements are also attributed to experts in general terms without specifying any names, as shown in figure 2.

**Figure 2:** *Identification of sources.*



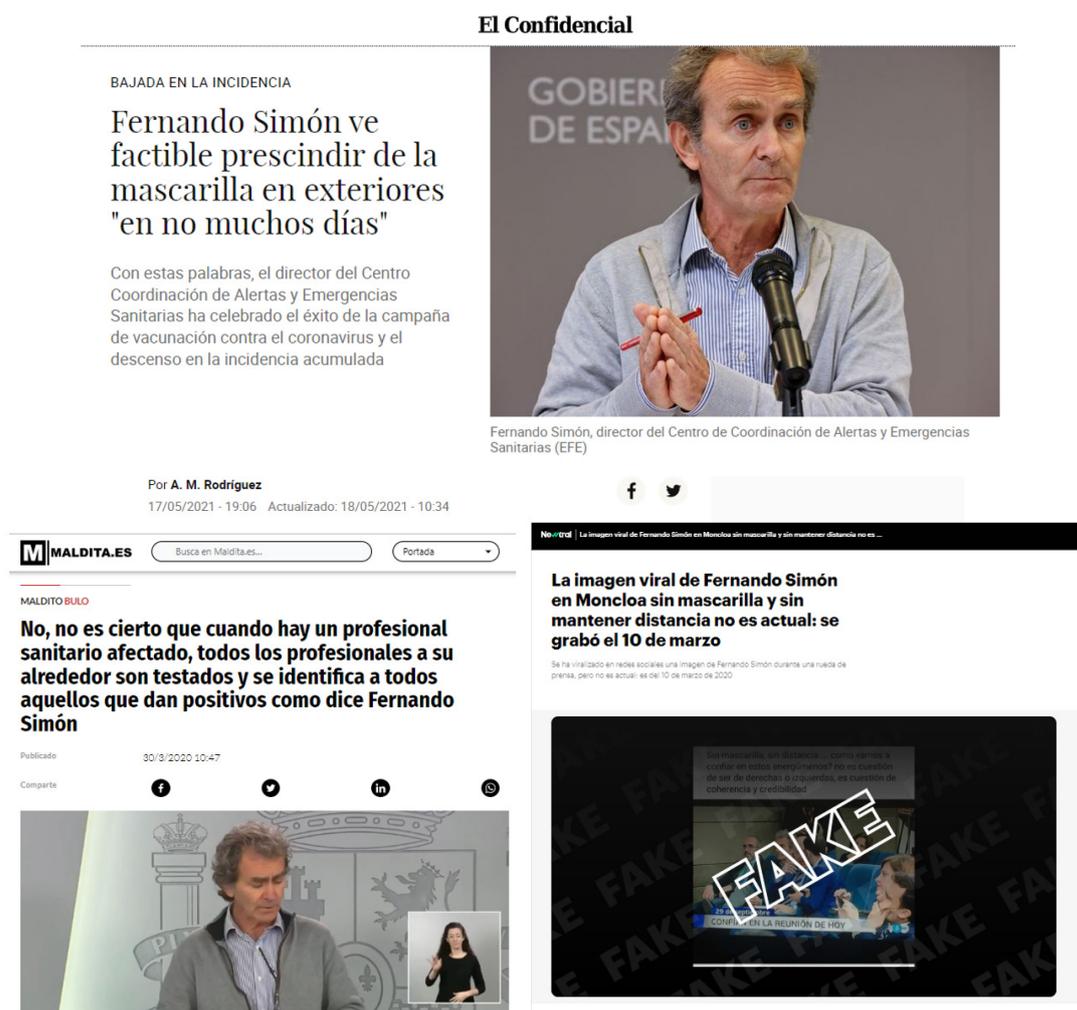
**Source:** Authors' original work.

#### 4.1.3. Predominance of official and expert sources

Regarding the type of sources analyzed in the third objective, the study reveals that the media analyzed have predominantly used personal sources attributed to specific individuals in their coverage of the pandemic and vaccination process. In fact, 50% of the 1,774 sources identified were personal sources, which include certain official sources that have been consistently present, such as Fernando Simón, the director of the Coordination Center for Health Alerts and Emergencies (CCAES), who has been both the protagonist of information about the pandemic and misinformation, as shown in the examples in Figure 3. Other regular official sources have been the Ministers of Health during the analyzed period, Salvador Illa and Carolina Darias, the President of the Government, Pedro Sánchez, and the heads of the different autonomous communities.

The percentage of sources attributed to a group is also significant, reaching 38%. In this case, the majority correspond to official institutions, including public administrations and health organizations, both international, such as the World Health Organization, and national and regional ones. Finally, documentary sources have accounted for 12% of the total, with references to scientific articles related to COVID-19 and the research carried out to combat it being highlighted in this field, as shown in the examples in Figure 4. Additionally, citing official Documents linked to the management of aspects such as confinement processes or vaccination plans is also common.

Figure 3: Examples of news featuring Fernando Simón.



Sources: Rodríguez, 2021; Maldito Bulo, 2020a; Rodríguez, 2020.

Figure 4: Examples that use scientific articles as sources of verification and information.



Sources: EP 20 minutos, 2021; Maldito Bulo, 2020b.

In addition to the three main categories of collective, personal, and documentary sources, it is clear that official sources have played a leading role in the coverage of the pandemic. In fact, 29% of the voices heard come from official organizations and institutions, while 24% come from individuals connected to official or political positions. This means that more than half of the sources (53%) are affiliated with official bodies or people in political or official positions. Following official sources, documentary sources represent 12% of the total, often linked to official documents, but also including documents from the scientific or health fields. Beyond official bodies, experts in the health and scientific fields have been key players in pandemic coverage, with personal health sources accounting for 10% of the total, and scientists for 7%. Throughout the pandemic, the media has consulted with experts in epidemiology, virology, immunology, biology, pharmacy, medicine, nursing, and more, as evidenced by the examples in Figure 5, to report on the pandemic and dispel misinformation.

**Figure 5:** *Examples of expert sources in the fields of science and health.*

**Ciencia / Materia**

**Respuestas para las principales dudas sobre las vacunas contra la covid**

Media docena de expertos responden a cuestiones como la seguridad a largo plazo de las inyecciones y la duración de la protección en los vacunados

**Fuentes**

- Mercedes Jiménez, bioquímica del Centro de Investigaciones Biológicas Margarita Salas (CIB-CSIC).
- Lluís Montoliu investigador del Centro Nacional de Biotecnología (CNB-CSIC).
- Marcos López Hoyos, presidente de la Sociedad Española de Inmunología.
- Luis Ignacio Martínez Alorta, miembro de la Junta Directiva de la Asociación Española de Vacunología.

**Sources:** El País, 2020; Turrión, 2020.

The media has also made use of statements from civil society, but to a lesser extent. Specifically, public statements account for 6% of the cases, mostly consisting of testimonies from different pandemic processes, particularly regarding healthcare and the vaccination process, as exemplified in figure 6. Among the testimonies, the statements of Araceli Hidalgo, the first person to receive the vaccine on December 27, 2020 in a public residence in Guadalajara, have been widely repeated in the media. In another 6%, references to media outlets or information agencies are cited as sources. Business sources in the economic field account for only 2%, while personal sources only account for 1%, mainly involving pharmaceutical laboratories. Finally, sources from other expert professions such as lawyers or historians represent 1%, while the remaining 2% of the analyzed sources have been classified under the "other" classification.

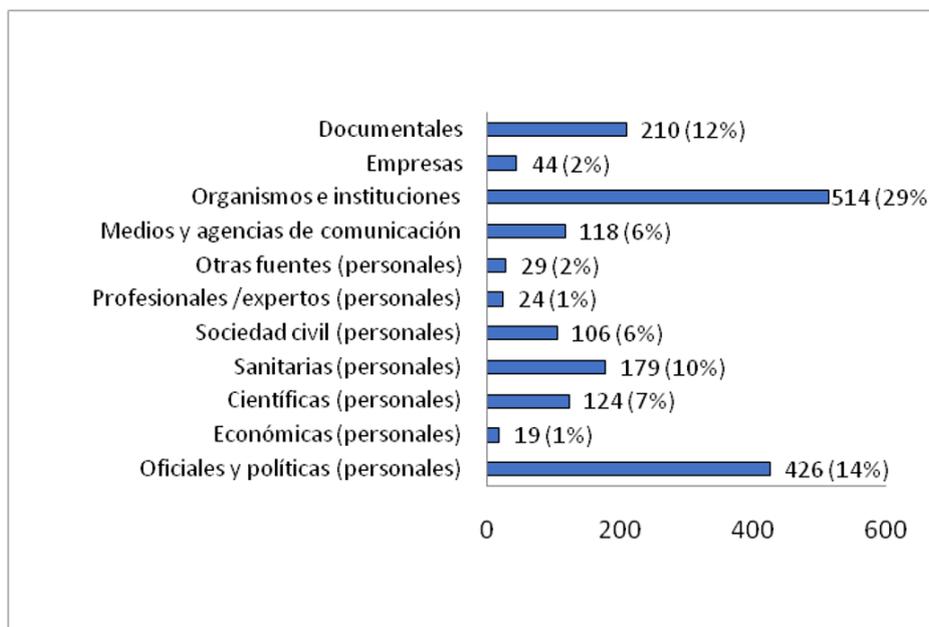
**Figure 6:** *Examples of civil society sources as testimony.*



Sources: Zas, 2020; Belenguer y Díez, 2021; Navarro, 2021.

Figure 7 shows the typology of the 1,774 sources used in the 420 articles, reflecting a clear trend towards the majority use of official sources, both personal and collective, followed by documentary sources and expert sources, both health and scientific.

**Figure 7:** *Typology of sources in the global media.*



Source: Authors' original work.

#### 4.2. Comparison between professional models: similarities and main peculiarities

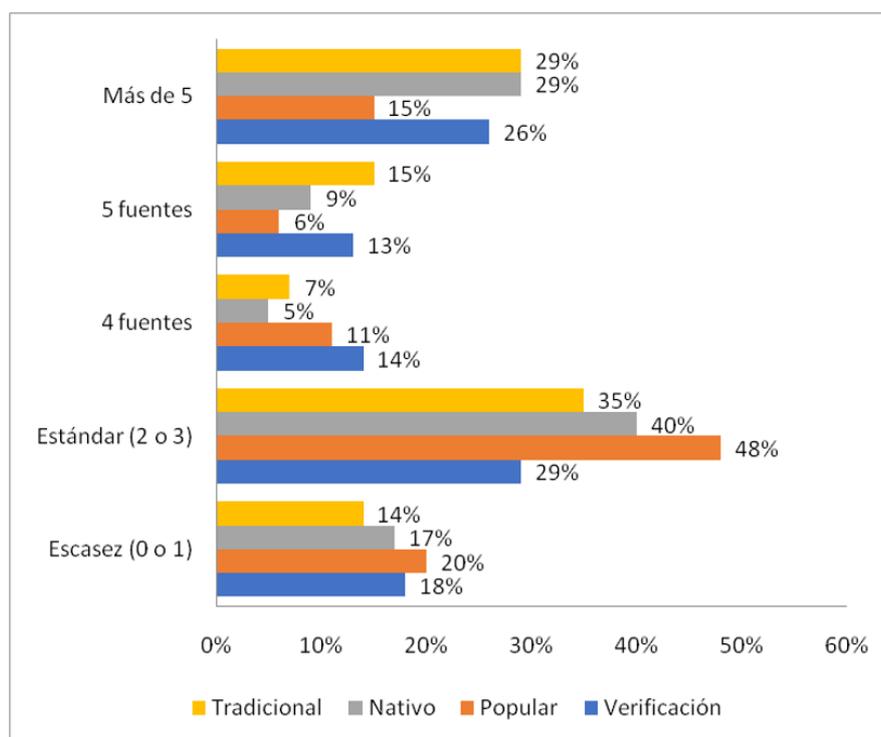
The comparison between the different professional models analyzed, proposed as the fourth objective of the study, shows certain shared patterns in the management of sources, but also reveals some important differentiating nuances.

#### 4.2.1. Scarcity of sources in popular media

Among the most notable features is how popular media outlets often rely on a limited number of sources, with 20% of their articles citing only one or no sources, and 48% citing only the standard number. As a result, only 32% of their articles exceed the standard. By contrast, other media models more frequently exceed the standard: digital media exceeds it in 43% of their articles, traditional media in 51%, and verification platforms in 53%.

Figure 8 provides further details on the number of information sources used in each professional media model.

**Figure 8:** *Number of sources according to the professional model.*



**Source:** Authors' original work.

Thus, the data gathered on the number of sources used reveals that traditional newspapers and verification platforms demonstrate a higher degree of quality when it comes to verifying and ensuring the relevance of information, particularly in terms of the number of sources consulted. The reliance on a high number of sources also strengthens the credibility and influence of traditional media and verification platforms during the various phases of pandemic coverage. These quality standards surpass those employed by popular newspapers. Native digital media, on the other hand, falls somewhere in the middle of the spectrum.

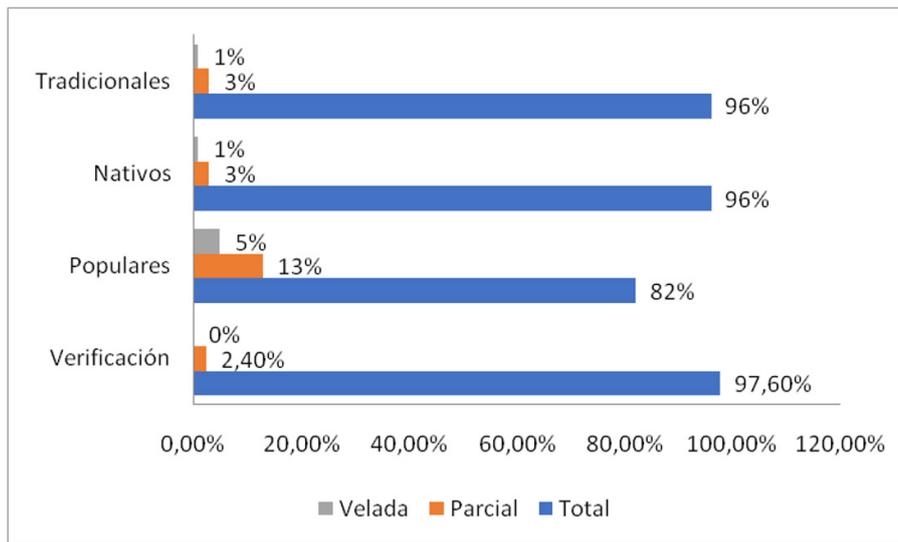
These trends are further validated when we examine the average number of sources per article, which is comparatively higher for traditional media. Out of the 174 articles analyzed from traditional newspapers, 828 sources were used, equating to an average of 4.7 sources per article. It should be noted that the use of multiple sources in traditional media is primarily evident in news that covers the pandemic's status or the vaccination process across various autonomous communities or countries,

with some articles using up to 24 sources. Following traditional media, verification platforms hold an average of 4.11 sources per article (411 sources in 100 articles), while native media presents an average of 4.06 sources per article (325 sources in 80 pieces). Conversely, the average number of sources for popular media is only 3.1 sources per article (210 sources in 66 articles), limited to standard usage.

#### 4.2.2. Significant differences regarding identification

A comparable situation arises in relation to source identification (Figure 9). Once more, the journalistic model that shows more unfavorable percentages compared to the others are the popular newspapers, which use up to 18% of sources without full identification. These percentages are lowered to 4% in the case of digital native media and traditional media. In this aspect, the verification platforms achieve the best results as partial or veiled identification is reduced to 2.4%.

**Figure 9:** Percentage identification by media model.



**Source:** Authors' original work.

The identification of sources reinforces the transparency, credibility and influence of journalistic coverage (Casero-Ripollés and López-Rabadán, 2013). Although they all have a clear tendency to correctly identify the sources used, it is the verification platforms that, in their work of contrasting the hoaxes and misinformation generated from the pandemic, carry out a clearer and more transparent identification of their sources, reinforcing thus these criteria of journalistic quality.

#### 4.2.3. High degree of prominence given to official sources

As for the source type, all media mainly use official bodies and institutions, with percentages ranging between 26% and 28% in different models. However, significant differences appear regarding personal, official or political sources. These sources are mostly used by traditional media, accounting for 33% of cases, while in verification platforms, they represent only 2%. Among native and popular media, these sources represent 29% and 24%, respectively. The presence of official sources is particularly high in articles that offer comparisons of the situation between different countries or communities, as shown in

Figure 10. In contrast, verification platforms use other types of sources well above the other media. For example, documentary sources account for 23%, while in other models, they stand at 12% for popular media, 9% for digital natives, and 7% for traditional ones.

**Figure 10:** *Examples of official sources in articles about the situation in different countries or autonomous communities.*

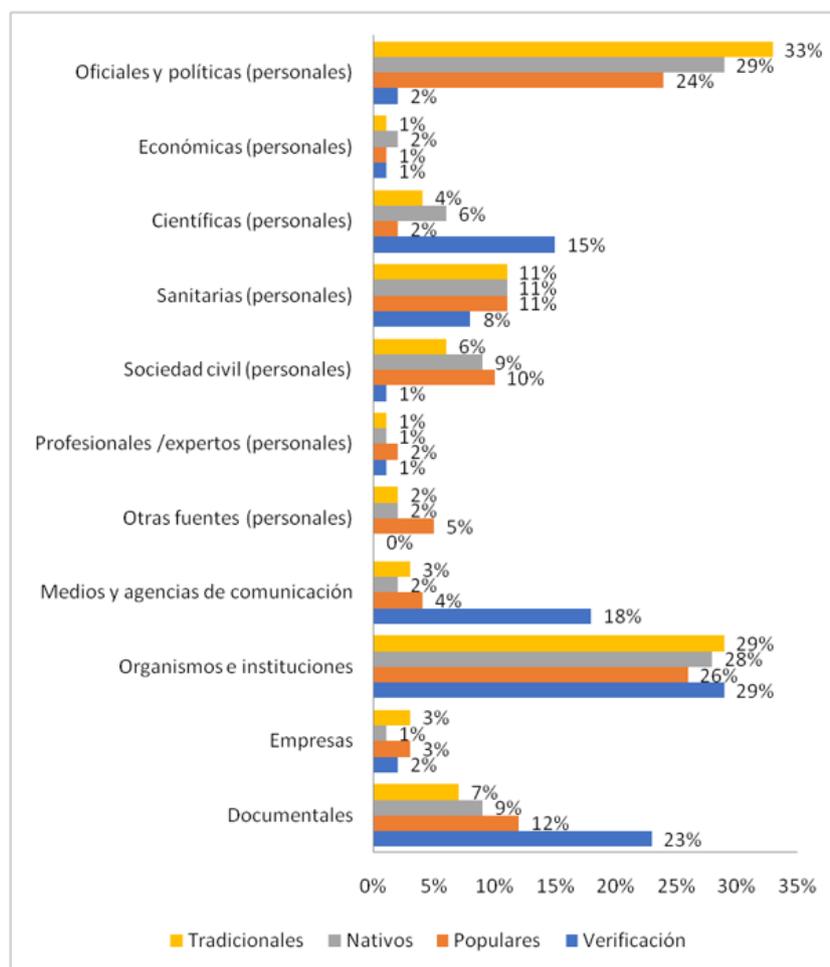


**Sources:** Arroyo y Galindo, 2020; B.T. Agencias, 2021.

The use of sources from other media and agencies is another significant feature, with a notable difference in the verification platforms where it stands at 18%, while in the other models it represents only 2 to 4% of the sources used. This reinforces the tendency of the verification process to rely on information already verified by other media and verification agencies. In addition, verification platforms make more extensive use of personal scientific sources, whereas the other media analyzed give greater prominence to health sources.

Figure 11 provides details on the different types of sources used by each professional model.

**Figure 11:** Number of sources according to the professional model.



**Source:** Authors' original work.

Regarding popular media, they show a higher percentage of personal sources from civil society, other experts, and others. The greater presence of these sources is linked to a higher presence of unidentified citizen and expert sources in this type of newspaper, as shown in the examples in Figure 12, including the use of social network user accounts as a source.

Figure 12: Examples of unidentified sources in popular newspapers.



Sources: OKdiario, 2020; Cuesta, 2021; Ortiz, 2021.

### 4.3. Consolidation of the verification platform model: expert sources and compliance with high quality standards

The fact that verification platforms constitute a relatively recent journalistic model, which is experiencing significant growth due to the increase in the problem of disinformation, along with its particularities, confirms the interest in comparing these specialized media in the verification of information with the rest of the average, as stated in the study's fifth objective. From this perspective, we first observe that verification agencies tend to use a higher number of sources than the standard. While in general media, the number of articles with a standard number of sources increases - from 2 to 3 sources - in verification platforms, there is a higher percentage of articles that have 4 or more sources, as shown in the examples in Figure 13. These platforms resort to expert opinions, studies, or official documents to verify the accuracy or otherwise of information. For instance, in the case of a letter from the dean of the College of Biologists of Euskadi, Jon Ander Etxebarria, *Maldita.es* uses nine experts, two scientific studies, three sources, and previous works published by two media, in addition to dismantling the statement of the College of Biologists itself.

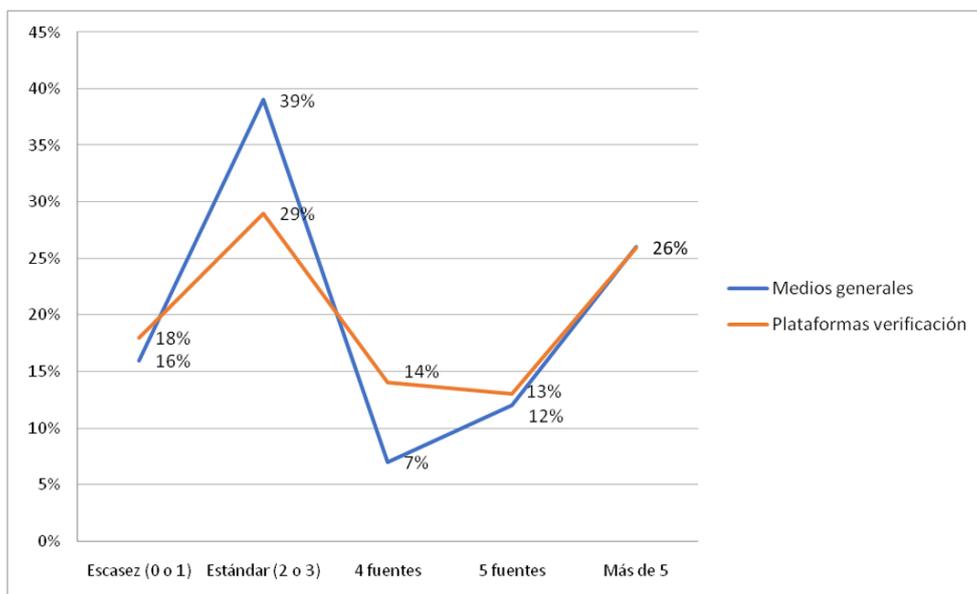
**Figure 13:** Examples of articles on verification platforms with more than five sources.



Sources: Maldita Ciencia, 2020; Rudich, 2020.

The graph corresponding to figure 14 shows how the verification platforms are at the same level or above the other media analyzed in the use of 4, 5 or more sources. Thus, 53% of the information exceeds a standard use of sources, compared to 45% of the general media.

**Figure 14:** Percentage of articles by number of sources (%).



Source: Authors' original work.

With regard to identification, although the difference is not very wide, since they all tend to a correct identification, it is appreciated how the verification platforms are the ones that carry out a greater explanation of the origin of the sources, thus promoting transparency about its contents and, with it, their credibility. Thus, if in the general media the percentage of totally identified sources is 93%, in the case of verification platforms this percentage rises to 97.6%.

The verification platforms also have their own distinctive characteristics in terms of source types. Differences were found in the use of practically all types of source profiles, with the exception of official organizations, which represent 29% in both cases. However, personal sources of an official or political nature are almost nonexistent in verification information, accounting for only 2%, while in other media, they represent 31%. On the other hand, the second most used source by the platforms is documentary, accounting for 23%, while in other media, this type of source, which is mainly based on scientific articles and official documents, only represents 8%. Verifiers also rely more heavily on expert sources. If scientific, health, and other experts are included, they account for 24% of the sources used by verifiers, while in other media, they only add up to 17%. Another type of source that platforms use far more than other media are those corresponding to other media or verification agencies, with the difference here being between 18% and 3%. Verification information sometimes includes aspects that have already been verified by other media, which is linked to the recurring nature of some hoaxes, while on other occasions, other media are cited as examples of published misinformation. Examples of both cases are shown in figure 15.

**Figure 15:** *Examples of using media or verifiers as sources.*



Imágenes del vídeo viral

En el segundo vídeo, aparecen más cerdos enterrados y quemados en un hoyo, pero no es actual. [Aquí](#) está publicado a fecha 11 de enero de 2019, por lo que no está relacionado con el brote de coronavirus. Este vídeo también se ha viralizado en India y en Francia y ha sido verificado por fact-checkers de estos países ([Boom](#), [Factly](#), [Newschecker](#), [Fact Crescendo](#) y [Libération](#)).



Captura de pantalla de la publicación en Facebook, realizada el 17 de marzo de 2020

El artículo ha circulado en inglés (1, 2, 3), francés (1, 2, 3), portugués (1, 2) e incluso ruso (1).

**Neutral** | El vídeo de sanitarios dando la espalda a un coche oficial como protesta no está grabado en ...

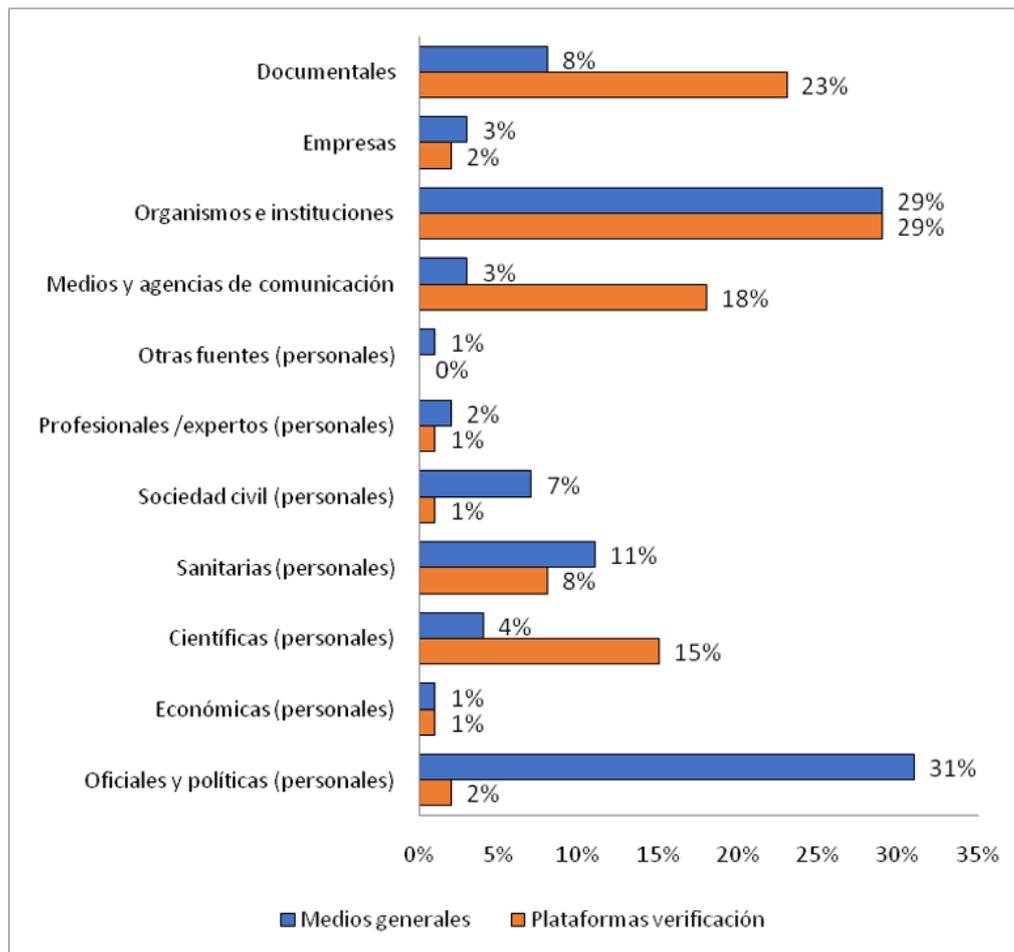
El sábado 16 de mayo, tal y como recoge la prensa belga francófona como Le Soir o RTBF, el personal sanitario de los hospitales Chirec-Delta y Saint Pierre dio la espalda a la primera ministra que había decidido visitar a los centros para apoyar al personal. La visita duró aproximadamente 40 minutos y la ministra prometió que las condiciones de estos trabajadores «mejorará» tras la pandemia.

**Sources:** Maldito Buló, 2020c; AFP Australia y AFP España, 2020; González, 2020.

Conversely, the sources to which the platforms resort less than the rest of the media are, in addition to the official personal and political sources already indicated, those corresponding to civil society (1% compared to 7%). They also resort somewhat less, although in a slightly differentiated percentage, to business sources.

The details regarding the comparison between types of sources used are shown in figure 16.

**Figure 16:** *Percentage of sources by type (%)*



**Source:** Authors' original work

The credibility of the content verified by the verification platforms is substantiated by the use of multiple sources and the correct identification of such sources, thereby promoting the fundamental principle of transparency. The endorsement of pluralism and participation of information is underscored by the diversity of sources employed by these platforms. Lastly, the proficient management of sources in the aforementioned three variables - number, identification, and typology - further reinforces the principle of influence of the verification contents, which has been crucial in addressing the "infodemic" phenomenon.

## 5. Discussion and Conclusions

The analysis reveals that the Spanish media have demonstrated a positive and professional approach in terms of source management. They have effectively met the quality parameters regarding the number, identification, and diversity of sources in their coverage of the pandemic.

The findings indicate that the media's management of sources during the pandemic was adequate, according to a broad overview. In terms of objectives 1 (number of sources reviewed) and 2 (type of source identification), analysis of 420 articles confirms that the Spanish media provided quality coverage of the pandemic, reinforcing the quality criteria of verification, relevance, credibility, influence, and transparency. This contributes to increased media consumption as a source of information, which has been observed since the early months of the pandemic (Casero-Ripollés, 2020; Newman et al., 2021).

As for the diversity of sources, which is the main focus of objective 3, we can observe that despite the clear predominance of official sources, it in turn reinforces the criteria of pluralism and participation. This is in line with the findings of Mellado et al. (2021) and the criticisms raised by Rebolledo et al. (2021), which confirms how the media discourse has been heavily influenced by official voices (53% of the 1,774 sources used). This is an aspect that was already noted by Costa-Sánchez and López-García (2020) in their analysis of the initial communication lessons of the pandemic, in which they concluded that the overexposure of the institutional discourse did not necessarily correlate with a greater sense of transparency. Despite this preponderance of official voices, this study has also identified a significant presence of expert voices from the scientific and health fields (totaling 17%) and documentary sources (12%). From a global perspective, the proper management of sources by the Spanish media during the first 21 months after the appearance of COVID-19 may have contributed to reinforcing trust in the media during the pandemic, including the vaccination process and combating the misinformation that was generated (Larrondo-Ureta et al., 2021; Almansa-Martínez et al., 2022).

Secondly, regarding the comparison of the models proposed in objective 4, it is observed that the quality standards related to source management are higher in the case of traditional press and verification platforms, while popular media maintain lower standards and native media are in an intermediate position. Specifically, verification platforms exceed the quality standards in source management and consolidate their own style, presenting a higher percentage of news that exceeds the standard number of sources, with 53% of their articles having four or more sources. The percentages are also higher than those of the other media analyzed in terms of source identification. In terms of the type of sources used, it is notable that personal, official or political sources are rarely used in verification platforms, while they are predominant in other media. However, all media models, including verification platforms, use sources belonging to official institutions or organizations almost equally. On the other hand, specialized verification media use other platforms or media as sources to a greater extent. The commitment of these verifiers to transparency and credibility when verifying and contrasting information seems to drive particular production mechanisms that are evident in the sources used, contributing to reinforcing the role of verifiers as a rising journalistic model that is key in the fight against disinformation. This is supported by studies by Sanahuja-Sanahuja and López-Rabadán (2022), López-Martín et al. (2021) and Aguado-Guadalupe and Bernaola-Serrano (2020).

Thus, the analysis of the different media models reveals that verification platforms, which are the main focus of objective 5 in this study, have a distinctive professional style when it comes to source management. From a comprehensive standpoint, this approach significantly exceeds the general quality standards of the other media analysed. This is supported by measurable and comparable indicators such as the number of sources and their identification percentage, which are associated with quality criteria such as verification, relevance, credibility, and transparency, and are vital in combating disinformation.

The present study provides a starting point for further research on source management in different contexts beyond the pandemic, thus enabling the identification of trends that go beyond specific areas. However, the study is limited to written media, thus excluding other areas of journalistic interest such as audiovisual media, whose analysis would be crucial to discovering the contribution of sources in reinforcing quality criteria such as verification, credibility, and transparency during a time of growing mistrust in the media (Newman et al., 2022).

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In addition, the evidence presented in the study highlights the consolidation of a distinct journalistic style by verification platforms, which suggests the need for further research into this emerging communication model and its role in combating the significant problem of disinformation.

## 6. References

- Abdullah, N. H., Hassan, I., Azura Tuan Zaki, T. S., Ahmad, M. F., Hassan, N. A., Mohd Zahari, A. S., Ismail, M. M. y Azmi, N. J. (2022). Examining the Relationship Between Factors Influencing Political Information Seeking-Behaviour through Social Media among Youths in Malaysia. *Revista de Comunicación de la SEECI*, 55, 1-15. <https://doi.org/10.15198/seeci.2022.55.e746>
- AFP Australia y AFP España. (2020). *Cristiano Ronaldo no ha ofrecido (de momento) sus hoteles como hospitales debido a la pandemia de coronavirus*. AFP Factual. <https://bit.ly/3ZYbx5B>
- Aguado-Guadalupe, G. y Bernaola-Serrano, I. (2020). Verificación en la infodemia de la COVID-19. El caso Newtral. *Revista Latina de Comunicación Social*, 78, 289-308. <https://www.doi.org/10.4185/RLCS-2020-1478>
- Aleixandre-Benavent, R., Castelló-Cogollos, L. y Valderrama-Zurián, J. (2020). Información y comunicación durante los primeros meses de COVID-19. Infodemia, desinformación y papel de los profesionales de la información. *El Profesional de la información*, 29(4). <https://doi.org/10.3145/epi.2020.jul.08>
- Almansa-Martínez, A., Fernández-Torres, M. J. y Rodríguez-Fernández, L. (2022). Desinformación en España un año después de la COVID-19. Análisis de las verificaciones de Newtral y Maldita. *Revista Latina de Comunicación Social*, 80, 183-200. <https://bit.ly/3LCSJVv>
- Amoedo, A., Vara-Miguel, A., Negrodo, S., Moreno, E. y Kaufmann, J. (2021). *Digital News Report España 2021*. Digital News. <https://www.digitalnews-report.es>
- Arroyo L. y Galindo, J. (2020). *De las compras anticipadas a la falta de infraestructura, así son los planes de vacunación en América Latina*. El País. <https://bit.ly/3Fx5L2I>
- Baptista, J. P., Correia, E., Gradim, A. y Piñeiro Naval, V. (2021). Partidismo: ¿el verdadero aliado de las fake news? Un análisis comparativo del efecto sobre la creencia y la divulgación. *Revista Latina de Comunicación Social*, 79, 23-47. <https://doi.org/10.4185/RLCS-2021-1509>
- Belenguer, L. y Díez Pérez, I. (2021). *Así se vive de madrugada la vacunación en el Zandal: un "éxito" sin colas y lleno de gente "apurada" por las vacaciones*. 20minutos. <https://bit.ly/3ToOdeU>
- B.T. Agencias. (2021). *Las CCAA discrepan sobre adelantar vacunas a menores de 30 por los brotes juveniles*. <https://bit.ly/3mXXrTk>
- Cantero-de-Julían, J. I., Sidorenko-Bautista, P. y Herranz-de-la-Casa, J. M. (2020). Radiografía de la pandemia: Análisis de la cobertura periodística de la COVID-19 en portadas de periódicos. *El Profesional de la Información*, 29(5). <https://doi.org/10.3145/epi.2020.sep.23>
- Casero-Ripollés, A. (2020). Impact of COVID-19 on the media system. Communicative and democratic consequences of news consumption during the outbreak. *El Profesional de la Información*, 29(2). <https://doi.org/10.3145/epi.2020.mar.23>

- 
- Casero-Ripollés, A. y López-Rabadán, P. (2013). La gestión de fuentes informativas como criterio de calidad periodística. En: J. L. Gómez Mompart, J. F. Gutiérrez Lozano y D. Palau Sampio (Eds.), *La calidad periodística. Teorías, investigaciones y sugerencias profesionales* (pp. 73-90).
- Catalán-Matamoros, D. y Peñafiel-Saiz C. (2019). Medios y desconfianza en vacunas: un análisis de contenido en titulares de prensa. *Revista Latina de Comunicación Social*. 74, 786-802. <https://doi.org/10.4185/RLCS-2019-1357>
- Costa-Sánchez C. y López-García X. (2020). Comunicación y crisis del coronavirus en España. Primeras lecciones. *El Profesional de la Información*, 29(3). e290304. <https://doi.org/10.3145/epi.2020.may.04>
- Costa-Sánchez, C., & Peñafiel-Saiz, C. (2022). From misinformation to trust: information habits and perceptions about COVID-19 vaccines. En: J. Vázquez-Herrero, A. Silva-Rodríguez, M.-C., Negreira-Rey, C. Toural-Bran, & X. López-García (Ed.), *Total Journalism. Models, Techniques and Challenges* (pp.137-150). Springer.
- Cotter, K., DeCook, J. R., & Kanthawala, S. (2022). Fact-Checking the Crisis: COVID-19, Infodemics, and the Platformization of Truth. *Social Media + Society*, 8(1), <https://doi.org/10.1177/20563051211069048>
- Cuesta, C. (2021). *Los diplomáticos estallan contra el caos de González Laya: la apodan como "González Líos"*. OKdiario. <https://bit.ly/3Fx7hCe>
- Díaz-del-Campo-Lozano, J., & Chaparro-Domínguez, M. Á. (2018). Ethical challenges of journalism in the era of big data: An analysis of Latin American deontological codes. *Palabra Clave*, 21, 1136-1163. <https://doi.org/10.5294/pacla.2018.21.4.8>
- Digital News Report. (2021). *Categoría: Medios con mayor consumo online*. Digital News Report. <https://www.digitalnewsreport.es/category/2021/>
- Dimitrova, D. V., & Strömbäck, J. (2009). Look who's talking: Use of sources in newspaper coverage in Sweden and the United States. *Journalism Practice*, 3(1), 75-91.
- Eiroa, M. y Barranquero A. (2017). *Metodologías de investigación en la comunicación y sus medios*. Editorial Síntesis.
- El País. (2020). *Respuestas para las principales incógnitas sobre las vacunas contra la COVID*. El País. <https://bit.ly/40foGXX>
- EP 20minutos. (2021). *Fumar podría disminuir el número de anticuerpos tras las vacunas contra el coronavirus*. 20minutos. <https://bit.ly/3JNQEV6>
- European Commission. (2021). *European Commission Guidance on Strengthening the Code of Practice on Disinformation*.
- Franklin, B., & Carlson, M. (ed.) (2013). *Journalists, sources, and credibility: new perspectives*. Routledge.
-

- García-Marín, D. (2020). Infodemia global. Desórdenes informativos, narrativas fake y fact-checking en la crisis de la COVID-19. *El Profesional de La Información*, 29(4), 1-20. <https://doi.org/10.3145/epi.2020.jul.11>
- García Marín, D. (2021). Las *fake news* y los periodistas de la generación z. Soluciones post-millennial contra la desinformación. *Vivat Academia, Revista de Comunicación*, 154, 37-63. <https://doi.org/10.15178/va.2021.154.e1324>
- Gómez Rodríguez, G. y González Reyes, R. (2022). La construcción de un estado de la cuestión hemerográfico. Un ejemplo a partir de los conceptos fake news, posverdad y desinformación en el entorno de Web of Science (WoS). *Vivat Academia, Revista de Comunicación*, 155, 69-90. <https://doi.org/10.15178/va.2022.155.e1335>
- González, S. (2020). *El video de sanitarios dando la espalda a un coche oficial como protesta no está grabado en España sino en Bélgica*. Newtral. <https://bit.ly/40ly0JX>
- Greene-González, M. F., Cerda Diez, M. F. y Ortiz Leiva, G. (2022). Prácticas periodísticas en tiempos de pandemia de coronavirus. Un estudio comparado entre Chile y Colombia. *Revista de Comunicación*, 21(1), 195-213. <https://doi.org/10.26441/RC21.1-2022-A10>
- Grossi, G. (2007). *La opinión pública: teoría del campo demoscópico*. CIS.
- Gutiérrez-Coba, L. (2006). Análisis de la calidad informativa, primer paso hacia el cambio. *Palabra Clave*, 9(1), 29-56.
- Gutiérrez-Coba, L. M., Coba-Gutiérrez, P. y Gómez-Díaz, J. A. (2020). Noticias falsas y desinformación sobre el COVID-19: análisis comparativo de seis países iberoamericanos. *Revista Latina de Comunicación Social*, 78, 237-264. <https://www.doi.org/10.4185/RLCS-2020-1476>
- Herrero Curiel, E. y González Aldea, P. (2022). Impacto de las fake news en estudiantes de periodismo y comunicación audiovisual de la universidad Carlos III de Madrid. *Vivat Academia, Revista de Comunicación*, 155, 1-21. <https://doi.org/10.15178/va.2022.155.e1415>
- Herrero-Diz, P., Pérez-Escolar, M., y Varona Aramburu, D. (2022). Competencias de verificación de contenidos: una propuesta para los estudios de Comunicación. *Revista De Comunicación*, 21(1), 231-249. <https://doi.org/10.26441/RC21.1-2022-A12>
- Herrero, E. y Herrera Damas, S. (2021). El fact-checker en español alrededor del mundo: Perfil, similitudes y diferencias entre verificadores hispanohablantes. *Revista de Comunicación de la SEECI*, 54, 49-77. <https://doi.org/10.15198/seeci.2021.54.e725>
- Ireton, C. y Posetti, J. (2018). *Journalism, “Fake News” and Disinformation: A Handbook for Journalism Education and Training*. UNESCO. <https://en.unesco.org/fightfakenews>
- Larrondo-Ureta, A., Peña Fernández, S., Morales i Gras, J. (2021). Desinformación, vacunas y COVID-19. Análisis de la infodemia y la conversación digital en Twitter. *Revista Latina de Comunicación Social*, 79,1-18. <https://www.doi.org/10.4185/RLCS-2021-1504>
- López del Castillo Wilderbeek, F. L. (2021). El seguimiento sobre las fake news en medios institucionales durante el coronavirus en España. *Vivat Academia, Revista de Comunicación*, 154, 1-12. <https://doi.org/10.15178/va.2021.154.e1253>

- López-García, X., Costa-Sánchez, C., & Vizoso, Á. (2021). Journalistic fact-checking of information in pandemic: Stakeholders, hoaxes, and strategies to fight disinformation during the COVID-19 crisis in Spain. *International Journal of Environmental Research and Public Health*, 18(3). <https://doi.org/10.3390/ijerph18031227>
- Luengo, M., & García-Marín, D. (2020). The performance of truth: politicians, fact-checking journalism, and the struggle to tackle COVID-19 misinformation. *American Journal of Cultural Sociology*, 8(3), 405-427. <https://doi.org/10.1057/s41290-020-00115-w>
- Maldita Ciencia. (2020). *Las afirmaciones falsas del decano del Colegio de Biólogos de Euskadi sobre la COVID-19*. Maldita.es. <https://bit.ly/3JoEfWh>
- Maldito Bulo. (2020a). *No, no es cierto que cuando hay un profesional sanitario afectado, todos los profesionales a su alrededor son testados y se identifica a todos aquellos que dan positivos como dice Fernando Simón*. Maldita.es. <https://bit.ly/3FwVuDV>
- Maldito Bulo. (2020b). *¿El coronavirus ataca a la hemoglobina de la sangre y no a los pulmones como asegura esta cadena de WhatsApp? A día de hoy no hay evidencias de que sea verdad*. Maldita.es. <https://bit.ly/3JoNmGI>
- Maldito Bulo. (2020c). *No, estos vídeos de cerdos enterrados vivos no son actuales ni están relacionados con el coronavirus*. Maldita.es. <https://bit.ly/3JQwSbQ>
- Malhotra, P. (2020). COVID19? A Relationship-Centered and Culturally Informed Approach to Studying Misinformation on COVID-19. *Social Media+ Society*, 6(3).
- Martins, A., Teixeira, J. y Larrondo, A. (2021). La lucha contra la desinformación sobre la COVID-19 en Brasil: estudio exploratorio de las agencias de verificación Fato ou Fake y Lupa. *Hipertext.net*, 22, 15-25. <https://doi.org/10.31009/hipertext.net.2021.i22.02>
- Martínez Sánchez, J. A. (2022). Prevención de la difusión de fake news y bulos durante la pandemia de COVID-19 en España. De la penalización al impulso de la alfabetización informacional. *Revista de Ciencias de la Comunicación e Información*, 27, 15-32. <https://doi.org/10.35742/rcci.2022.27.e236>
- Masip, P., Aran-Ramspott, S., Ruiz-Caballero, C., Suau, J., Almenar, E. y Puertas-Graell, D. (2020). Consumo informativo y cobertura mediática durante el confinamiento por el COVID-19: sobreinformación, sesgo ideológico y sensacionalismo. *Profesional de la Información*, 29(3).
- Mayo-Cubero M. (2020) News sections, journalists and information sources in the journalistic coverage of crises and emergencies in Spain. *El Profesional de la Información*, 29(2). <https://doi.org/10.3145/epi.2020.mar.11>
- Mellado, C., Cárcamo-Ulloa, L., Alfaro, A., Inai, D. y Isbej, J. (2021). Fuentes informativas en tiempos de COVID-19: Cómo los medios en Chile narraron la pandemia a través de sus redes sociales. *El Profesional de la información*, 30(4). <https://doi.org/10.3145/epi.2021.jul.21>
- Mula Grau, J. y Cambronero Saiz, B. (2022). Identificación de las *fake news* que se publican en la edición en papel de un diario provincial en la era de la desinformación digital de Trump y el

inicio de la COVID. *Vivat Academia, Revista de Comunicación*, 155, 23-38. <https://doi.org/10.15178/va.2022.155.e1329>

Navarro, J. (2021). *Castilla y León retoma la vacunación con AstraZeneca entre el desconcierto y la indignación: "Es un desastre"*. El País. <https://bit.ly/3LCAXlf>

Newman, N., Fletcher, R., T. Robertson, C., Eddy, K., & Kleis Nielsen, R. (2022). *Reuters Institute digital news report 2022*. Reuters Institute for the Study of Journalism.

Nuevo López, A., López Martínez, F. y Delgado Peña, J. J. (2023). Bulos, redes sociales, derechos, seguridad y salud pública: dos casos de estudio relacionados. *Revista de Ciencias de la Comunicación e Información*, 28, 120-147. <https://doi.org/10.35742/rcci.2023.28.e286>

Ortiz, S. (2021). 'Pasaporte Covid' Vs. certificado de vacunación: ¿para qué sirve cada uno?, ¿dónde debo llevarlos de vacaciones? 20minutos. <https://bit.ly/3lkW1li>

OKdiario. (2020). *La cruda respuesta de los españoles al acto de propaganda de Pedro Sánchez con la vacuna*. OKdiario. <https://bit.ly/3lvtglU>

Peña-Fernández, S., Larrondo-Ureta, A. y Morales-i-Gras, J. (2022). Comunicación política, institucional y medios de comunicación en tiempo de pandemia. Análisis del diálogo sobre vacunas en cinco países iberoamericanos. *Revista de Comunicación*, 21(1), 315-328. <https://doi.org/10.26441/RC21.1-2022-A16>

Pérez-Curiel, C., Gutiérrez Rubio, D., Sánchez González, T. y Zurbano-Berenguer, B. (2015). El uso de fuentes periodísticas en las secciones de Política, Economía y Cultura en el Periodismo de Proximidad Español. *Estudios sobre el Mensaje Periodístico*, 21(Especial Noviembre), 101-117.

Pérez-Curiel, C. y Velasco Molpeceres, A. M. (2020). Impacto del discurso político en la difusión de bulos sobre COVID-19. Influencia de la desinformación en públicos y medios. *Revista Latina de Comunicación Social*, 78, 65-97. <https://www.doi.org/10.4185/RLCS-2020-1469>

Pérez Escoda, A. y Pedrero Esteban, L. M. (2021). Retos del periodismo frente a las redes sociales, las fake news y la desconfianza de la generación Z. *Revista Latina de Comunicación Social*, 79, 67-85. <https://doi.org/10.4185/RLCS-2021-1519>

Poynter. (s.f). *Poynter*. <https://www.poynter.org>

Quintana Pujalte, L. y Pannunzio, M. F. (2021). Fact-checking en Latinoamérica. Tipología de contenidos virales desmentidos durante la pandemia del coronavirus. *Revista de Ciencias de la Comunicación e Información*, 26, 27-46. <https://doi.org/10.35742/rcci.2021.26.e178>

Ramón-Vegas, X., Mauri-Ríos, M. y Rodríguez-Martínez, R. (2020). Redes sociales y plataformas de fact-checking contra la desinformación sobre la COVID-19. *Hipertext.net*, 21, 79-92. <https://doi.org/10.31009/hipertext.net.2020.i21.07>

Rebolledo, M., González, H. y Olza, I. (2021) Visibilidad de los sanitarios durante la crisis del COVID-19: estudios de fuentes y de temáticas informativas. *Interface: Communication, Health, Education*, 25(1). <https://doi.org/10.1590/interface.200606>

- Rodríguez. A. M. (2021). *Fernando Simón ve factible prescindir de la mascarilla en exteriores "en no muchos días"*. El Confidencial. <https://bit.ly/42jM3kX>
- Rodríguez Fernández, L. (2019). Desinformación y comunicación organizacional: estudio sobre el impacto de las fake news. *Revista Latina de Comunicación Social*, 1714-1728. <http://doi.org/10.4185/RLCS-2019-1406>
- Rodríguez, L. H. (2020). *La imagen viral de Fernando Simón en Moncloa sin mascarilla y sin mantener distancia no es actual: se grabó el 10 de marzo*. Newtral. <https://bit.ly/3LFvM3E>
- Rodríguez Rey, A., Enguix González, A., Rojas-Torrijos, J. L. y García-Gordillo, M. (2015). La calidad de los medios y el uso de fuentes periodísticas en la prensa local de referencia en España, *Estudios sobre el Mensaje Periodístico*, 21, 85-100.
- Rodríguez Serrano, A., Soler Campillo, M. y Marzal Felici, J. (2021). Fact checking audiovisual en la era de la posverdad. ¿Qué significa validar una imagen? *Revista Latina de Comunicación Social*, 79, 19-42. <https://doi.org/10.4185/RLCS-2021-1506>
- Román-San-Miguel, A., Sánchez-Gey Valenzuela, N. y Elías-Zambrano, R. (2020). Las fake news durante el Estado de Alarma por COVID-19. Análisis desde el punto de vista político en la prensa española. *Revista Latina de Comunicación Social*, 78, 359-391. <https://www.doi.org/10.4185/RLCS-2020-1481>
- Román San-Miguel, A., Sánchez-Gey Valenzuela, N. y Elías Zambrano, R. (2022). Los profesionales de la información y las fake news durante la pandemia de la COVID-19. *Vivat Academia, Revista de Comunicación*, 155, 131-149. <https://doi.org/10.15178/va.2022.155.e1312>
- Rosique Cedillo, G. y Crisóstomo Flores, P. (2022). Análisis del tratamiento informativo de la COVID-19 por Televisión Española. *Communication & Society*, 35(1), 17-28. <https://doi.org/10.15581/003.35.1.17-28>
- Rudich, T. (2020). *No, las mascarillas no causan enfermedades neurodegenerativas ni detienen el desarrollo cognitivo de los niños*. Newtral. <https://bit.ly/3Fxmfb0>
- Saavedra-Llamas, M., Herrero-De-la-Fuente, M., Rodríguez-Fernández, L. y Jiménez-Narros, C. (2019). Información de salud: fuentes periodísticas y desafíos profesionales. *El profesional de la Información*, 28(2). <https://doi.org/10.3145/epi.2019.mar.08>
- Salaverría, R., Buslón, N., López-Pan, F., León, B., López-Goñi, I. y Erviti, M. C. (2020). Desinformación en tiempos de pandemia: tipología de los bulos sobre la COVID-19. *El Profesional de la Información*, 29(3). <https://doi.org/10.3145/epi.2020.may.15>
- Sanahuja-Sanahuja, R. y López-Rabadán, P. (2022). La gestión de fuentes como criterio de calidad en el periodismo de verificación. Uso y tendencias en la cobertura de la COVID-19 en España. *Hipertext.net*, 24, 9-22. <https://doi.org/10.31009/hipertext.net.2022.i24.02>
- Sánchez-González, M., Sánchez Gonzáles, H. M. y Martos Moreno, J. (2022). Innovación editorial en redes sociales de los verificadores hispanos de la #CoronavirusFactCheck Alliance: contenidos y visión de sus responsables. *Revista Latina de Comunicación Social*, 80, 135-161. <https://www.doi.org/10.4185/RLCS-2022-1535>
-

- Stencel, M., & Luther, J. (2020). *Fact-checking count tops 300 for the first time*. Duke Reporters Lab. <https://reporterslab.org/fact-check- ing-count-tops-300-for-the-first-time>
- Thelwall, M. (2021). Can Twitter give insights into international differences in COVID-19 vaccination? Eight countries' English tweets to 21 March 2021. *El Profesional de la Información*, 30(3), <https://doi.org/10.3145/epi.2021.may.11>
- Turrión, E. (2020). *Ni modifica tu ADN ni serás "transgénico": los bulos sobre la técnica del ARN-m de las vacunas anticovid*. Newtral. <https://bit.ly/40iZjUT>
- Vázquez-Herrero, J., Vizoso, Á. y López-García, X. (2019). Innovación tecnológica y comunicativa para combatir la desinformación: 135 experiencias para un cambio de rumbo. *El Profesional de la Información*, 28(3). <https://doi.org/10.3145/epi.2019.may.01>
- Villa Gracia, A. D. y Cerdán Martínez, V. (2020). Bulos durante la pandemia del COVID-19 en España: un estudio a través de Google Trends. *Revista Latina de Comunicación Social*, 78, 169-182. [www.doi.org/10.4185/RLCS-2020-1473](http://www.doi.org/10.4185/RLCS-2020-1473)
- Zas Marcos, M. (2020). *Araceli, Nicanor, Mónica y Socorro: los más golpeados por la COVID-19 reciben las primeras vacunas*. elDiario. <https://bit.ly/3JkQ1RA>

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