

## **Information consumption and misinformation perceptions in Spain during crisis situations: Legacy and social media**

*Consum d'informació i percepcions sobre  
la desinformació a Espanya en situacions de crisi:  
mitjans de comunicació tradicionals i xarxes socials*

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### ABSTRACT:

Understanding how people obtain information is crucial for public communications to respond to crises and emergencies. We conducted a YouGov Spain survey ( $N = 1,006$ ) on 12-13 May 2021 to analyse the information consumption habits of the Spanish population in crisis situations and to evaluate perceptions of crisis management by legacy media and public institutions. Our results point to the emerging role of social media (especially among younger citizens). Moreover, they reveal that more than two thirds of the respondents report encountering misinformation during a crisis (especially on Facebook), and they show that the detection of misinformation is influenced by age and size of municipality. Lastly, the results indicate that, despite public approval of institutional and media communications during crisis situations, there remains room for improvement.

### KEYWORDS:

crisis communication, legacy media, social media, information consumption, misinformation, institutions.



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### RESUM:

Entendre la manera com la gent s'informa és fonamental perquè les comunicacions públiques puguin respondre a les crisis i les situacions d'emergència. El 12 i 13 de maig de 2021 vam dur a terme una enquesta a través de YouGov Espanya ( $N = 1.006$ ) per analitzar els hàbits de consum d'informació de la població espanyola en situacions de crisi iavaluar les percepçons sobre la gestió de les crisis per part dels mitjans tradicionals i les institucions públiques. Els resultats apunten al paper emergent de les xarxes socials (especialment entre els més joves), indiquen que més de dues terceres parts dels enquestats es van trobar amb informacions errònies durant les crisis (especialment a Facebook) i mostren que la detecció de la desinformació està influenciada per l'edat i la mida del municipi. Finalment, tot i l'aprovació pública de les comunicacions institucionals i mediàtiques en situacions de crisi, encara hi ha marge de millora.

### PARAULES CLAU:

comunicació de crisi, mitjans de comunicació tradicionals, xarxes socials, consum d'informació, desinformació, institucions.

## 1. Introduction

The Internet and social media have technical advantages that enable more effective responses to crises. The circulation of information during a crisis situation grows frenetic since, apart from an immediate social concern regarding the difficulties caused by emergencies (Ardèvol-Abreu, 2015; Mayo-Cubero, 2020), there is a fundamental human drive to reduce uncertainty (Berger & Calabrese, 1975). Factors such as transparency, media credibility, and effective information management are fundamental to crisis management. While a large part of this responsibility falls on public institutions, the media and citizens also play an important role, especially since social media platforms disseminate public opinion. Twitter, Facebook, and Instagram have emerged as key information sources in crisis situations (Eriksson & Olsson, 2016; Guidry *et al.*, 2017). According to the *Media Use in the European Union* report (European Comission, 2021), while trust has risen in the traditional (legacy) media (LM), this is not the case for social media (SM), as only 19% of Europeans and 14% of Spaniards trust these sources. The Reuters Institute *Digital News Report* (2021, 2022, 2023) similarly confirms a widening trust gap between news in general and news from social media; in Spain, however, this gap is narrower because of a lower level of trust in news in general (Besalú, Pont-Sorribes & Martí, 2021).

The disintermediation of legacy media between citizens and politicians (Katz & Dayan, 1994) and the universalization of social media have shaped how public debate is structured and how opinion climates emerge (Herbst, 2011). Certain features of social media, including global interaction, fast viralization, and anonymity make this the perfect space for the spreading of misinformation (Kavanagh & Rich, 2018), which is typically shared faster than verified information (Vosoughi, Roy & Aral, 2018).

In this context of high misinformation circulation, public institutions are key to regulating information and preventing misinformation during crises. Studies on how government management has affected public trust point to a general increase in trust (Baekgaard *et al.*, 2020; Blais *et al.*, 2020). It can therefore be argued that there is a rally-round-the-flag effect during crisis situations (Lee, 1977); when faced with external threats, citizens increase their trust in those in charge of the government institutions.

This article presents an analysis of information consumption by Spanish citizens in crisis situations, based on data from a survey ( $N=1,006$ ) conducted in May 2021. Applying quantitative analysis, we identify the main information consumption habits and profiles in Spaniards, thereby highlighting how Spanish public institutions could improve crisis communication.

## 2. Theoretical framework and literature review

### 2.1. Information consumption in crises

Public interest in information increases in crisis situations, and especially in health emergencies that have a direct impact on the population (Westlund & Gheretti, 2015). As was evident in the recent Covid-19 crisis, the perception of one's own risk in relation to threats enhances interest (Sjöberg, 2007), especially among the older population and those at greater risk of infection (Rosi *et al.*, 2021). Another factor is the unusual nature of an event, e.g., a natural disaster as novelty captures the attention of the public (Portell & Mullet, 2014).

Information consumption in Spain is increasingly digitalized; as documented in the *Digital News Report 2023*, 74% of the Spanish population consume information online (Amoedo-Casais *et al.*, 2023). In the USA, the Internet has been the main means of accessing information since 2009 (Zogby Interactive, 2009). Even so, information seeking in relation to emergencies is multichannel, i.e., it includes television, radio, and social media (Masip *et al.*, 2020). Studies of news consumption during the Covid-19 pandemic have reported a significant increase in television and radio as reference news sources for citizens in Europe (EBU, 2020) and the USA (Jurkowitz & Mitchell, 2020). Furthermore, although age continues to be a determining factor in information sourcing, during the Covid-19 pandemic, there was a shift towards legacy media among younger audiences (Casero-Ripollés, 2020). Besalú (2020) reports that, during the Covid-19 pandemic in Spain, information consumption via television increased overall by 40%, and the increase was greatest among young people aged 13-24 years. Besalú (2020) further affirms that traditional media, as the primary reference source of information in crisis situations, serve as a socially cohesive element. These results corroborate the findings of previous studies of news consumption in periods of crisis. For example, Spence, Lachlan and Burke (2008) and Hornmoen and Backholm (2018) also observed that audiences tend to rely on legacy media in risk situations.

Other research, such as that by Park and Avery (2018), has pointed out that, for disaster coverage, younger age groups tend to use social media as the first source of information, ahead of television and radio. Research has also highlighted the role of social media in crisis situations, as information is immediate and unmediated (Fraustino, Liu & Jin, 2017). Undoubtedly, the greater availability of sources and of interaction between users are factors that facilitate more effective crisis communication management (Tulloch, Cuartielles & Ramírez-Santos, 2023).

Social media platforms such as Facebook, Twitter, and Instagram have become content propagation channels in the digital age, particularly in crisis situations, due to features such as speed, simplicity, horizontality, and virality (Chivite-Fernández & Serrano-Rodríguez, 2013). Numerous studies have validated their communicative effectiveness in crisis situations (Brandt, Andersson & Kjellstrom, 2019; Liu, Bartz & Duke, 2016; Sutton *et al.*, 2019), with platforms like Twitter positioned as highly efficient

and interactive communicative resources (Suau-Gomila, Mora-Rodríguez & Pont-Sorribes, 2022; Pont-Sorribes, Suau-Gomila & Percastre-Mendizábal, 2020; Watson, Finn & Wadhwa, 2017; Bruns *et al.*, 2012; Mendoza, Poblete & Castillo, 2010; Palen *et al.*, 2010; Hughes & Palen, 2009). However, some studies have criticized the use made of Twitter and Facebook by institutions: "In times of crisis, the mismatch between public agencies' and citizens' social media use risks hampering the spread of vital, sometimes even lifesaving, information" (Eriksson & Olsson, 2016: 206).

In emergency situations, obtaining information quickly is a key need, and because of the immediate media interest generated, appropriate information can be rapidly disseminated to prevent or even reduce the impact of a disaster (Houston *et al.*, 2014). During crises, social media serve as both formal and informal communication channels, since they provide a means to share both institutional and personal information. The social media space is a prime information source, as users gain access to exclusive information beyond that disseminated in formal contexts (Austin, Liu & Jin, 2012). Even so, the horizontality, immediacy, and virality of social media can also foster the spread of rumours (Oh, Agrawal & Rao, 2013).

In recent decades, however, the consolidation of social media platforms has resulted in a complex media system, populated with numerous channels and platforms and saturated with information providers and with content; consequently, obtaining verified information is becoming increasingly difficult, especially because of increased competition between information actors (Casero-Ripollés, 2020). This digital environment has led to an increase in misinformation (Bennett & Livingston, 2018; Salaverría *et al.*, 2020), increased distrust in legacy media (Newman *et al.*, 2022), growing polarization, and the emergence of populism, a scenario that has been documented specifically for Spain by Guerrero-Solé, Mas-Manchón and Virós i Martín (2023).

Within this fragmented and hybrid media system (Chadwick, 2017), collaboration between legacy media and social media appears to be the most effective way for information to reach all audiences during a crisis. Multiple studies have analysed news consumption behaviours and source credibility in crises, reporting that experts are considered to be the most credible sources, followed by the media in social media (Abu-Akel, Spitz & West, 2021; Besalú, Pont-Sorribes & Martí, 2021), although this credibility is somewhat diluted in the written digital press format (Martí-Danés *et al.*, 2023).

In this high-choice media environment (Van-Aelst *et al.*, 2017) where traditional and digital media coexist (Chadwick, 2017), how people obtain information on current affairs has acquired great importance given the consequences for democracy (Casero-Ripollés, 2020; Feenstra *et al.*, 2016). As Casero-Ripollés (2020) points out, divisions are potentially generated between informed and uninformed citizens, which, in turn, affects the principle of intrinsic equality that is a premise of democracy (Dahl, 2006); the outcome is a polarized society in which misinformation is widespread (Ribeiro *et al.*, 2017). This situation is even more critical in crisis

periods because the dissonance can hinder the dissemination of vital, even life-saving information (Eriksson & Olsson, 2016). Finally, misinformation can also lead to an erosion of trust in official sources and journalism (Munger, 2019). There is an urgent need, therefore, to regulate the information transmitted in communications during crises and emergencies.

## 2.2. Institutional crisis communication

The fragmented and multichannel media context requires that, in crisis situations, institutional communications clarify information and provide an accurate account (Olson, 2014). Effective institutional communication, which contributes to positive citizen perceptions of government management and minimizes damage (Martínez, Moreno & Contreras, 2020), depends on many factors, including a spokesperson with strong oratory skills, clear and accurate information (Cerdá, 2011), transparency about events and facts (Riorda, 2012), emergency monitoring, and immediate information (Oliveira & Huertas-Roig, 2018). For example, in the case of Covid-19, many leaders adopted a presidential tone in their institutional communications (Manfredi-Sánchez, Amado-Suárez & Waisboard, 2021) and personalized the communications around themselves.

Narratives built by public institutions are relevant during periods of crisis, as reported by Ngai *et al.* (2020) for health crisis communication. Huang and DiStaso (2020) further examine emotional appeal of messages, concluding that positive messages predict greater audience engagement. Legacy media likewise have an obligation to properly transmit information during crises. When a natural disaster or human catastrophe occurs, legacy media and journalists share the information space together with the public institutions responsible for responding to the crisis (Mayo-Cubero, 2020).

In the last decade, digitalization has led both public institutions and legacy media to become proactive on social media platforms. The aim of this research is to assess the degree to which social media have been integrated into the Spanish population's information consumption during crises, and to analyse perceptions of crisis communication by public institutions and legacy media.

## 3. Methodology

The main objective of this research, based on quantitative analysis, was to identify the information habits of Spanish citizens during crisis episodes and to understand their perceptions of public crisis communication. Accordingly, we aimed to identify the main characteristics of communications in Spain during a crisis, covering aspects such as misinformation detection, types of media relied upon, assessment of public communication preparedness for a crisis, and evaluation of journalists' work.

Our data were collected via a survey, which, if appropriately designed and based on proper sampling techniques (Cea D'Ancona, 1998), can yield results representative of the entire population. The survey was administered online using Computer Assisted Web Interviewing (CAWI). It was designed in collaboration with YouGov Spain and conducted between 12 and 13 May 2021, a period of transition toward the "new normal" in Spain in the context of Covid-19. Respondents were proportionally selected according to three key Spanish population quota variables: gender, age, and territorial distribution (Nielsen Areas). For a confidence level of 95% and  $p=q=0.5$ , the overall sample error was  $\pm 3.1$ .

While other studies (Casero-Ripollés, 2020; Montaña-Blasco, Ollé-Castellà & Lavilla-Raso, 2020) have used a similar quantitative approach, their focus was specifically on the Covid-19 crisis. In contrast, we focus on generic information consumption in any period of crisis, with the Covid-19 pandemic serving as an example of an emergency in certain survey questions, reflecting our recent experience of an unprecedented, large-scale crisis. We understand a period of crisis to be a time when the population is unable to carry out their daily tasks in the usual way due to the implementation of a series of general restrictions, and when information plays a key role in the development of this crisis process, which is characterized by uncertainty and temporality.

Our research questions, in relation to the Spanish population, were as follows:

**RQ1:** What are the main information sources resorted to during crisis situations?

**RQ2:** To what extent are social media used as an information source during crisis situations and by which sociodemographic profiles?

**RQ3:** To what extent is there a perception of having received misinformation during crisis situations?

**RQ4:** How are institutional communications and media coverage during crisis situations perceived?

Survey responses revealing respondents' habits were cross-referenced with sociodemographic variables to analyse trends and profiles. The questionnaire (11 questions) was thus composed of 6 questions on information consumption in crisis situations and 5 questions on sociodemographic details (age, gender, education level, income, and employment status) of the respondents.

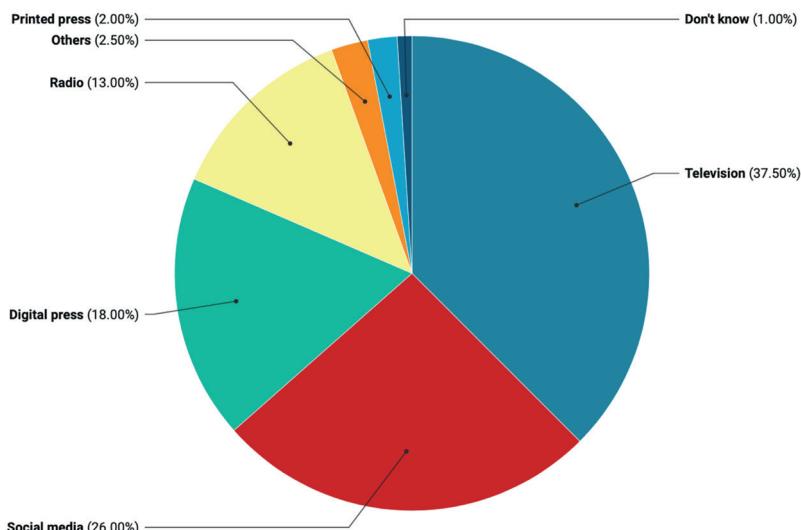
## 4. Results

### 4.1. Main information sources and sociodemographic profiles

The first section of the questionnaire asked about the main information sources used during crisis situations and presented the following response options: television, radio, printed press, and digital press as legacy media (LM), social media (SM),

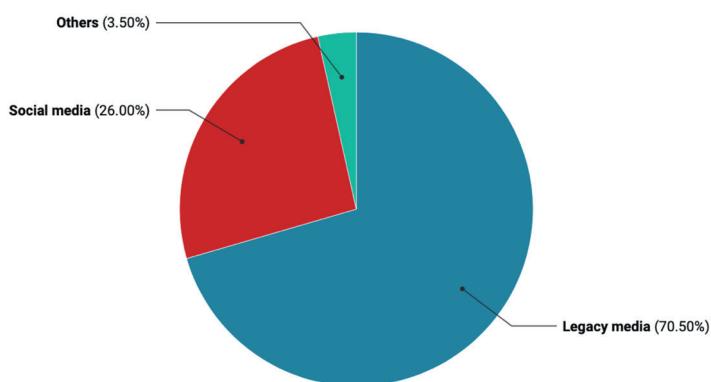
and other media (allowing for further specification). A “Don’t know” option was also included.

Figure 1 shows that television was the predominant medium (37.5%), followed by SM (26%), the digital press (18%), and radio (13%), while printed press accounted for just 2% and other media 2.5%. To better understand the reach of SM in crisis situations, we divided the responses into three groups: LM (television, radio, printed press, digital press), SM, and other media. Figure 2 shows that LM



**Figure 1.** Main information sources ( $N = 1,006$ ).

*Source:* Prepared by the authors.



**Figure 2.** Main information sources: legacy media vs social media ( $N = 1,006$ ).

*Source:* Prepared by the authors.

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greatly predominated as an information source, used by 70.5% of our sample during a crisis.

Table 1 shows binary logistic regression results for LM and SM as the dependent variables, coded as 0 and 1, respectively. To identify the sociodemographic variables that determine SM information consumption during a crisis, we included, as independent variables, age, gender, education level, employment status, and income.

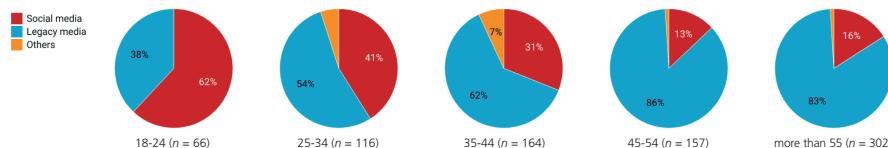
Variables	B	SD	Wald	df	Sig.	Exp (B)
Age	-0.527	0.074	51.208	1	0	0.59
Gender	0.567	0.19	8.894	1	0.003	1.762
Income	-0.472	0.179	6.985	1	0.008	0.623
Employment status	-0.107	0.093	1.339	1	0.074	0.898
Education level	0.243	0.136	3.203	1	0.074	1.275
Constant	0.324	0.632	0.262	1	0.608	1.382

**Table 1.** Binary logistic regression with media type as the dependent variable and key sociodemographic factors as independent variables.

*Source:* Prepared by the authors.

The regression results point to three statistically significant relationships for media type, namely, age ( $B=-.527$ ,  $Sig.=0.000$ ), gender ( $B=.567$ ,  $Sig.=0.003$ ), and income ( $B=-.472$ ,  $Sig.=0.008$ ). Those 3 variables thus differentially defined the sociodemographic profile that predominantly uses SM during a crisis.

Figure 3 depicts how age, classified in five groups, clearly affected the information sources used in crisis situations.

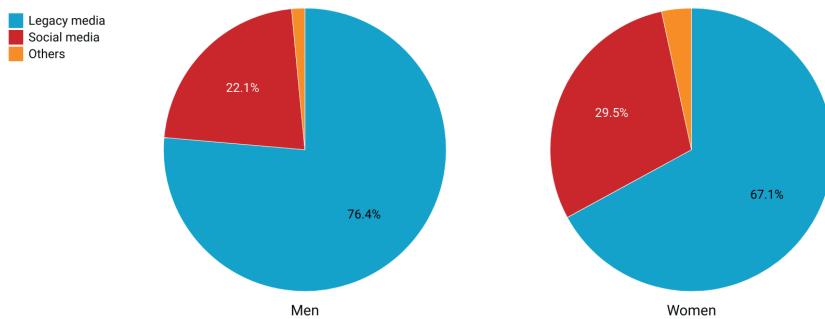


**Figure 3.** Main information sources by age: legacy media vs social media ( $N = 1,006$ ).

*Source:* Prepared by the authors.

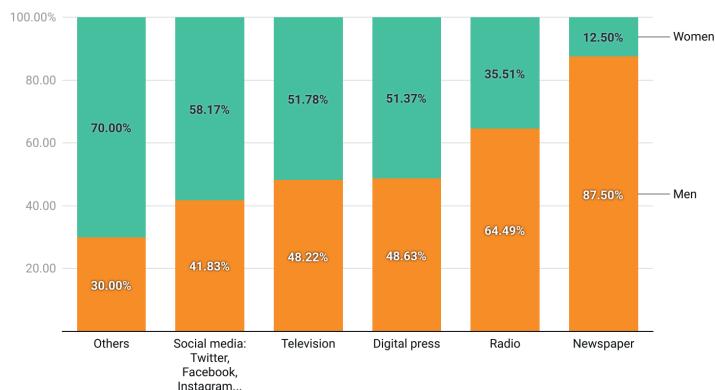
The strong positive relationship between LM and age was statistically confirmed. SM use gradually declined with increasing age: from 62% in the 18-24 age group to 13% in the 45-54 age bracket, increasing slightly to 16% in the 55+ age group. While SM was the preferred medium among the youngest age bracket, LM use increased among older groups, rising from 54% in the 25-34 age bracket, to 86% in the 45-54 age group, and dipping slightly to 83% in the 55+.

Figure 4 depicts how gender affected the information sources used in crisis situations, with men and women clearly differentiated by their use of LM and SM: 76.4% of men compared to 67.1% of women used LM, and 22.1% of men and 29.5% of women used SM. Figure 5 breaks down the six main information sources by gender to highlight the key differences between men and women.



**Figure 4. Main information sources by gender: legacy media vs social media (N = 1,006).**

*Source: Prepared by the authors.*

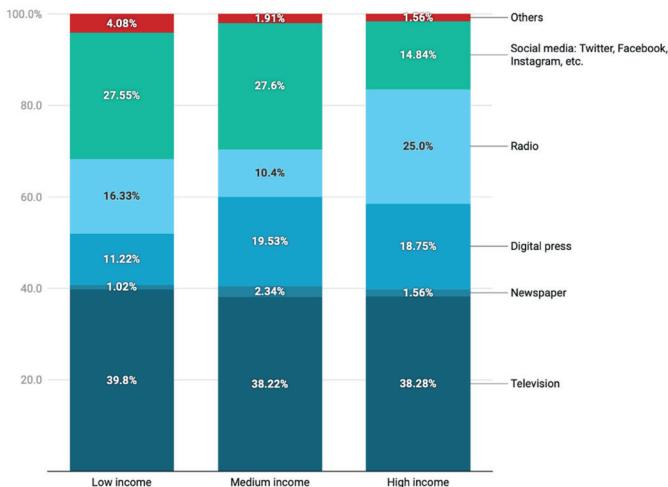


**Figure 5. Main information sources by gender (N = 1,006).**

*Source: Prepared by the authors.*

Major differences were evident between men and women in their use of certain LM types and SM. Regarding LM, gender parity was evident for television and the digital press, while men far more than women relied on printed press (87.5% vs 12.5%) followed by radio (64.49% vs 35.51%). In contrast, women more than men used SM (58.2% vs 41.83%) and other media (70% vs 30%). This predominance of men in printed press and radio use confirms the negative relationship (see Table 1) between women and LM use ( $B = .567$ ,  $Sig. = 0.003$ ).

Finally, the significant sociodemographic variable of income was divided into low-, medium-, and high-income categories. Figure 6 shows that high-income individuals (83.59%) relied more on LM than medium- and low-income individuals (between 68% and 71%), and that their use of SM was around half (14.84%) than that of the other income groups.



**Figure 6. Main information sources by monthly income N = 1,006).**

*Source: Prepared by the authors.*

## 4.2. Perceptions of misinformation during crisis situations

To identify and measure perceived misinformation during crisis situations, respondents were asked: "Thinking now about the information received during a crisis, do you have the perception that you have come across misinformation?". A large majority (80%) of those surveyed stated that they had the perception of having come across misinformation, with only 10% having the opposite perception. Table 2 comparatively profiles the individuals sociodemographically in terms of means, showing that those who did not perceive misinformation were older and lived in smaller municipalities.

Figure 8 reports responses to a question on perceived misinformation sources, showing that Facebook was listed first (57%), followed by LM (54%), while percentages for Twitter, Instagram, and other platforms ranged between 34% and 25%.

Figure 9 presents the relationship between age and perceived misinformation across different media types. In the case of Facebook – the platform where most misinformation was reportedly detected – results varied significantly by age group. Trust in information shared on Facebook was highest among the youngest respondents (68% in the 18-24 group), while among older age groups, it ranged



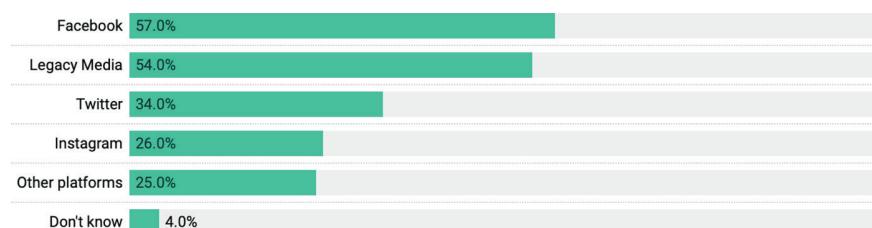
**Figure 7.** Perceptions of having detected misinformation (N = 1,006).

*Source: Prepared by the authors.*

Variable	Misinformation detected	Misinformation not detected
Age	35-44 years	45-54 years
Gender	1.51	1.56
Income	2.04	2.01
Education level	2.94	2.9
Municipality size	Large	Medium
Constant	0.324	0.632

**Table 2.** Misinformation detection and non-detection: sociodemographic profiles.

*Source: Prepared by the authors.*



**Figure 8.** Sources perceived as publishing misinformation (N = 808).

*Source: Prepared by the authors.*



**Figure 9.** Age crossed with non-detection (NO) and detection (YES) of misinformation by information source.

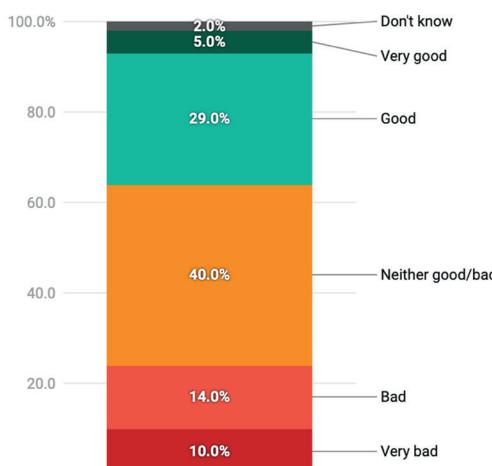
*Source: Prepared by the authors.*

from 30% (35-44) to 44% (55+). Distrust of information on Twitter and Instagram increased notably among individuals over 35, whereas in younger groups responses were more evenly split. As for legacy media, the second most cited source of misinformation, perceptions were more consistent across age groups, with slight variations in the youngest and oldest cohorts.

#### 4.3. Trust in institutions and legacy media

To better understand trust in communications by the main public opinion shapers during crisis situations, a number of questions addressed perceptions of legacy media and journalists, government bodies (state, regional, and local), police forces, and civil protection.

Figure 10 shows that 24% and 34% of the respondents had negative and positive perceptions of the information reported by journalists/the media, respectively, while 40% perceived this information in neutral terms. The average Likert scale score was 3.05 out of 5, indicating a reasonable degree of approval.

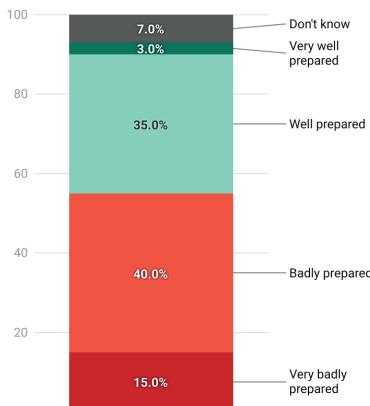


**Figure 10.** Perceptions of Spanish journalists and legacy media ( $N = 1,006$ ).

*Source:* Prepared by the authors.

Figure 11 shows that a majority of the respondents (55%) considered government bodies to be poorly prepared to communicate adequately in crisis situations, compared to 38% who considered that they were well or very well prepared.

Figure 12 shows responses to a question to evaluate, on a Likert scale of 1 to 5, the communicative roles of different Spanish institutions during crisis situations. Most scores were above 3, with the highest scores for civil protection (3.77) and different police forces (3.73, 3.72, and 3.38). The only score below 3 was for the Ministry of Home Affairs (2.85).



**Figure 11.** Perceptions of government body preparedness for crisis communications ( $N = 1,006$ ).

Source: Prepared by the authors.



**Figure 12.** Evaluation of public communications during crisis situations ( $N = 1,006$ ).

Source: Prepared by the authors.

## 5. Conclusions

Our main conclusion is that legacy media continue to be hegemonic as an information source during crisis situations, with just under 70.5% of the respondents indicating legacy media to be their main information source. However, the perspective shifts when we focus on the younger population, as 66% of those aged 18-24 use social media to obtain information during a crisis. In response to the first research question (RQ1), therefore, the main information sources in crisis situations for the Spanish population are television (37.5%), social media (26%), and the digital press (18%). That result corroborates the findings of the Spain Digital News Report

(2021, 2022 and 2023), which positions television as the main source of information for Spanish citizens (Amoedo-Casais *et al.*, 2023; Vara-Miguel *et al.*, 2022; Amoedo-Casais *et al.*, 2021), followed by social media, digital press, and radio. Television, however, is increasingly losing its pre-eminence as a source of information (Amoedo-Casais *et al.*, 2023). Nonetheless, legacy media undoubtedly act as a main information source in a public sphere marked by information overload, especially in crisis situations.

Another of our main findings concerns the three sociodemographic factors that significantly influence the consumption of legacy or social media. Age is key, with younger age groups mainly using social media as their information source during a crisis, corroborating Casero-Ripollés (2020): age is clearly a differential factor in how the Spanish population obtains information. Gender is also significant, as social media use is more widespread among Spanish women. Finally, income level is also key, with legacy media more used by high-income individuals. Therefore, in answer to the second research question (**RQ2**), social media are used as an information source by 26% of the Spanish population, and the main sociodemographic profile is that of a young woman on a low income.

An interesting finding is that 80% of the Spanish population report the perception of having come across misinformation during a crisis situation (**RQ3**). In terms of the main sources of misinformation, Facebook takes first place (57%), followed by legacy media (54%). However, while only 32% of the 18-24 age group report having detected misinformation in Facebook, this percentage rises to over 50% in age groups >25 years. The misinformation detection rate is also higher in people living in larger municipalities.

The Spanish population broadly approves the crisis information transmitted by government bodies and legacy media, with the exception of the Ministry of Home Affairs (**RQ4**). The most highly rated communications were those of the civil protection and police forces. Regarding perceptions of legacy media coverage and institutional coverage, the Spanish population seems to be ambivalent regarding crisis communication management by government bodies: their communications are considered adequate, but their preparedness is questioned by 55% of the sample. As for the crisis communication efforts of journalists and legacy media, while approved overall by the Spanish population, the score is only average, suggesting the need to improve journalistic crisis coverage. One proposal could be to coordinate communicative actions between journalists and experts during crises, given the credibility attributed to both professions (Abu-Akel, Spitz & West, 2021; Be-salú, Pont-Sorribes & Martí, 2021).

Considering the limitations that may arise from conducting the study online – particularly regarding the collection of opinions from individuals without Internet access – and the fact that these results cannot be extrapolated to other countries, we can compare our findings to similar studies, such as the one conducted by Magallón-Rosa and Paisana (2024), which analyses the perception of misinformation

in Portugal and Spain. According to their study, trust in the media in Spain is around 33%, whereas according to our results, the role of journalists during crisis communication is generally viewed positively (3.5/5). At the same time, this study aligns with the findings of Moreno, Fuentes-Lara and Navarro (2020), which report a simultaneous use of multiple media and platforms, with legacy media playing a significant role as three of the four most used channels. Another point of comparison with this research is the level of trust Spanish citizens have in public institutions. Moreno, Fuentes-Lara and Navarro (2020) state that trust decreases as crisis situations progress; however, our study adds nuance by showing that the decline in citizens' trust varies depending on the degree of politicization of the institution. For less politicized institutions, the level of trust granted decreases less significantly.

In conclusion, crisis communication by legacy media and institutions is becoming increasingly digitalized and increasingly needs to occur through social media. This requires that legacy media and institutions should assume the challenge of adapting to the new formats preferred by younger generations, something which will shape crisis communication in the years to come. ◻

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