The deployment of social media by journalists in news discourse during public health and environmental crises in Spain (2019-2022)[1]

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Abstract. The consolidation of social media as both a news source and information channel in professional news practice is a growing field within crisis communication research. This article enters the newsroom to interview those journalists charged with the coverage and information management of high-profile public emergencies as to how they employ social media in their news production routines. Results reveal an across-the-board consensus on the positive consequences of this trend such as user interaction or source availability, the signalling of more negative aspects such as acceleration, intoxication or the proliferation of unfiltered "news" and the existence of professional issues which are yet to be addressed such as the maintenance of certain boundaries regarding information access between journalists and citizens in crisis communication scenarios.
Keywords: Crisis communication; emergency; social media; journalism.

[es] El despliegue de las redes sociales por parte de los periodistas en el discurso informativo durante las crisis de salud pública y medio ambiente en España (2019-2022)

Resumen. La consolidación de las redes sociales como fuente de noticias y canal de información en la práctica periodística profesional está cada vez más presente en la investigación de la comunicación de crisis. Este artículo entra en la sala de redacción para entrevistar a aquellos periodistas encargados de la cobertura y gestión de la información de emergencias públicas de alto perfil sobre cómo emplean las redes sociales en sus rutinas de producción de noticias. Los resultados revelan un consenso generalizado sobre las consecuencias positivas de esta tendencia como la interacción del usuario o la disponibilidad de la fuente, la señalización de aspectos más negativos como la aceleración, la intoxicación o la proliferación de "noticias" sin filtrar y la existencia de problemas profesionales que aún están por abordarse, como el mantenimiento de ciertos límites en cuanto al acceso a la información entre periodistas y ciudadanos en escenarios de crisis de comunicación.
Palabras clave: Comunicación de crisis; emergencias, medios digitales; redes sociales; periodismo.

Sumario: 1. Introduction. 2. Theoretical framework. 3. Methodology. 4. Results. 5. Conclusions. 6. References.

1. Introduction

In recent years, crisis communication research has paid considerable attention to the operative requirements of news professionals when faced with the coverage and management of an emergency (Ewart & McLean, 2019; Swindell & Hertog, 2012; Sallot, Steinfatt, & Salwen, 1998). That said, one aspect regarding professional praxis in such complex and unpredictable circumstances which remains relatively understudied refers to journalists' analysis of the benefits and risks of the deployment of social media in the coverage of a public crisis.

In order to gauge the opinion of specialist reporters in this field this study analysed the protocols employed in their use of Twitter, Instagram and Facebook during four of the biggest public emergencies in recent Spanish history: i) the outbreak of lis-

teriosis in Andalucía (August, 2019). This infection provoked by the consumption of industrial shredded meat led to three deaths, five abortions and more than 200 cases (CCAES, 2019); ii) raging forest fires in Tarragona (June, 2019). A forest fire razed to the ground 6500 hectares of land in the Ribera de Ebro region over a period of four days; iii) the socio-sanitary crisis caused by the Covid-19 pandemic (2020-2022). From March 2020 to March 2022 over a 100,000 deaths and 11 million cases were registered according to the Spanish Ministry of Health; iv) the spectacular eruption of a volcano in La Palma (2021) which lasted for three months and which led to explosions, gas leaks, landslides and caused the forced displacement of more than 5,000 local people (IGME, 2022).

Parallel to the analysis of these cases, semi-structured interviews were conducted with those journalists from national and local media outlets responsible for the news content surrounding each of these stories. This insight into newsroom practice reveals not only media professionals' sectorial use of social media but also the corporate defence of the incorporation of these networks into crisis news coverage and the signalling of some drawbacks and potential threats to journalism practice if disproportionate or unfiltered use of their potential is made.

2. Theoretical framework

Over the last decade, social media have become very useful communication tools in emergency coverage due to inherent characteristics such as speed, simplicity, horizontality and virality (Chivite-Fernández & Serrano-Rodríguez, 2013). Numerous studies have validated their communicative effectiveness in crisis situations (Brandt et al., 2019; Liu et al., 2019; Sutton et al., 2019), thus positioning social media platforms such as Twitter as a communication resource with great information efficiency and interaction (Suau-Gomila et al., 2022; Pont-Sorribes et al., 2020; Watson et al., 2017; Bruns et al., 2012; Mendoza et al., 2010; Palen et al., 2010; Hughes & Palen, 2009).

In fact, in emergency situations, reporting quickly and truthfully is one of the main tasks faced by journalists and the media, given that a catastrophe generates immediate media interest (Mayo-Cubero, 2020; Ardèvol-Abreu, 2015) and the dissemination of adequate information can prevent or at least lessen the impact of the disaster (Houston et al., 2014). Thus, media professionals seek to respond to the need to reduce the uncertainty generated in an emergency scenario –itself a natural human reaction (Berger & Calabrese, 1975)– and to execute immediate communicative actions with the aim of offering data to the population that provide some security (Rosenthal et al., 2001).

Along with their speed, social media have also positioned themselves in the risk society (Beck, 2002) as a channel for the dissemination and multidirectional reception of information, increasing the interconnection and response capacity of the actors involved (Buzzelli et al., 2014). In many ways, this capacity has led social media to create a "crowd-sourcing" environment in crisis situations (Gao et al., 2011) in which messages from disaster management teams (administrators, politicians and security forces), journalists and the testimonies of those affected are interspersed with the demands and reactions of citizens (Alexander, 2014).

This multidirectional and collaborative dissemination of information modifies the nature of the media coverage of disasters by enabling the online environment to act without journalistic intermediation allowing some citizens to present themselves as "connected eyewitnesses" of the emergency (Mortensen, 2015). Informants, therefore, in addition to transmitters, become "gatewatchers" (Bruns, 2003) and "sense-givers" (Giuliani, 2016) of the information relayed during the crisis.

In this sense, social platforms are formal and informal communication channels in emergency situations, since they in turn serve both as a means of expression of institutional and personal information. This converts them into relevant information gathering spaces for journalists and the media, given that they can access content that goes beyond that disseminated in official contexts (Austin et al., 2012) and monitor online citizen perceptions generated by the crisis (Alexander, 2014).

Social media platforms also allow reporters to establish and maintain a more direct relationship with sources and protagonists involved in the story (Mayo-Cubero, 2019). At the same time, their use opens up new opportunities for media dissemination among citizens who are not used to resorting to traditional media such as in the case of younger age groups who tend to use the networks as the first source of information ahead of television and radio when covering disasters (Park & Avery, 2018).

However, as a consequence of the horizontality, immediacy and virality of information that they present, the use of social media in emergency communication can also favor the spread of rumors (Oh et al., 2013) and a consequent lack of coordination between agents involved which "risks hampering the spread of vital, sometimes even lifesaving, information" (Eriksson & Olsson, 2016, p. 206). In addition, their viralization systems governed by criteria of popularity and connectivity (Van Dijck & Poell, 2013) can contribute to the amplification of a sensation or direct threat of risk that does not correspond to reality (Rainear et al., 2018). For example, authors such as Liu et al. (2016, p. 627) warn that periods of crisis, especially in the initial stages, can lead to "information holes" that social media try to fill collaboratively as a response to the uncertainty generated and which in turn constitute a risk vis-a-vis the manipulation and dissemination of unverified information. That said, research such as that of Watson, Finn and Wadhwa (2017) not only main-

tains that the use of these tools as information channels not only leads to greater interaction and communicative effectiveness but also points to the fact that a large part of the big data produced on social platforms also has a positive impact on the prevention of emergencies precisely by disposing of more data about them.

The gap that this paper attempts to bridge is that of combining previous scholarly research on the deployment of social media during emergency scenarios with the perspectives of reporters on the crisis news beat with the aim of addressing questions such as:

– RQ1: Which social media platforms do journalists prioritise when communicating emergencies? What specific use do they make of each of these platforms?
– RQ2: What are the advantages and drawbacks in the deployment of social media for crisis communication?
– RQ3: What is the level of citizen-journalist interaction on social media during a crisis?
– RQ4: What are the main deontological and professional challenges faced by media professionals in their use of social media?
– RQ5: What are the "lessons" that journalists have learnt in their deployment of social media in the management of a public emergency?

3. Methodology

In order to offer a balanced sample of professional opinion from the Spanish media on these issues, semi-structured interviews were prepared with journalists given that not only do they offer an invaluable opportunity for "understanding, reflection, and explanation via a path that is organic, adaptive, and oftentimes energising" (Tracy, 2020, p. 156) but also that they are versatile, adaptable to field conditions and excellent for not just providing information but for generating understanding as well" (Guest et. al, 2013, p. 113).

During the interviews a wide-ranging 15-question script featuring both open and closed questions was then employed by researchers. Researchers agreed to follow the same script for greater comparative coherence. All interviews were immediately transcribed for shared use. Specific references (names, dates, places) were later rechecked by researchers to guarantee accuracy. With specific reference to social media, the interview guide addressed the following issues:

1. The reasoning behind the priority use of one social media platform over another
2. The strengths and weak points of social media platforms in the information management of emergencies
3. The distribution of content between press, radio, television and social media
4. The most valued characteristics of social media (such as speed, clarity, interaction with citizens and other media...)
5. The role played by social media in the relationship between journalists and crisis management teams (Grassau et al., 2021)
6. The level of feedback from readers/users regarding their crisis coverage

While these items were used to stimulate each of the conversations, the flexibility inherent to the qualitative interviewing process also allowed for "emergent understandings to blossom" (Tracy, 2020, p. 158). In that sense, qualitative interviews represent a valuable technique for offering contextual information and nuanced background on issues that are not immediately accessible.

As for the choice of interviewees to draw upon for this study, four factors were taken into consideration. First and foremost, the research team decided that proven experience in the field of crisis and emergency reporting would be the main criteria. Following this, a balance between journalists from national media –such as *El País*– and local news outlets –such as *Diario Sur* based in Malaga– was sought in order to see if operational resources could be a significant factor when covering crises. Thirdly, the public/private and audiovisual/print axes were also included in the sample design as reporters from the Spanish national broadcaster RTVE were chosen alongside journalists from private newspapers such as *La Vanguardia*. Finally, gender representation was also considered as the list includes four male journalists alongside two female colleagues. These selection criteria plus questions of professional availability and predisposition produced a shortlist of six interviewees (Table 1). Whilst the reduced number of the sample could be used to question the validity of extrapolating wider conclusions across the profession, the qualitative and representative nature of the interviewee list and their accumulated professional experience does confer onto them an authority and credibility worthy of consideration when addressing the challenges under analysis.

Table 1. Professional features of the journalists interviewed and their media outlets

Media	Journalist
El País was founded in 1976. Currently, it is the newspaper with the largest circulation in Spain, with 763,000 daily readers. Its contents are published in Spanish, Catalan, English and Portuguese.	**Eva Saiz** es editor-in-chief of *El País* in Andalucía. She is an established pol itical reporter and is a specialist in the coverage of crisis scenarios.

Media	Journalist
La Vanguardia is the newspaper with the third largest readership in Spain (355,000). First published in 1881 and, since 2011, it has been published in Spanish and Catalan.	**Pere Millan** specialises in coordinating the live stories section of *La Vanguardia*. He has wide experience in the coverage of emergency situations.
Diario Sur founded in 1937 is one of the leading regional newspapers in Spain and one of the most important in Andalucía, with an average readership of 74,000.	**Ángel de los Ríos** is Social Media Strategist at *Diario Sur*. He joined SUR.ES in 2009 after having spent time at different sections of the newspaper.
RTVE is the Spanish public broadcaster. Its regional centre in Andalucía is leader in audience.	**Raúl Ramírez** is editor and reporter at RTVE Andalucía and has a long experience in covering emergencies and crises.
RNE is the national Spanish radio station and has six channels which covers the whole of the country. The channel in Seville is one of the most popular with an average of 108,000 listeners.	**Alicia Bonachera** is editor at RNE in Seville. She has directed RNE in Andalucía and has more than forty years of professional experience.
RAC1 is a private radio station based in Barcelona. It is leader in Catalonia with an average of 856,000 listeners.	**Esteve Giralt** is correspondent for Tarragona for RAC1 and *La Vanguardia*. He has been awarded various prizes for his coverage of emergency situations and is president of the Journalists College of Tarragona.

Source: own table including official national media data (1st quarter, 2023).

All the conversations were recorded throughout the second half of 2021 and the first half of 2022 and lasted between 45 and 60 minutes depending on the professional engagements of the journalists. Researchers agreed to follow the same script for greater comparative coherence. All interviews were immediately transcribed for shared use. Specific references (names, dates, places) were later rechecked by researchers to guarantee accuracy. During the interviews a wide-ranging 15-question script featuring both open and closed questions was then employed by researchers.

4. Results

Twitter, the go-to social media tool

Regarding their preferred choice on the social media radar, it is clear that for those journalists interviewed, Twitter is their go-to crisis communication tool while Instagram and Facebook play a secondary role in their professional practice. Reporters told researchers that Twitter is heavily deployed during public emergencies due to its multifunctional capacity as it can i) provide journalists with minute-by-minute updates; ii) be used for the speedy contacting of sources such as environmental preservationists (in the case of forest fires) or consumer associations (such as in the case of listeriosis); iii) draw together opinions that are being generated online about the crisis at hand in real time and iv) be used to find out what rival media are publishing on and offline.

As for Instagram, a certain division of opinion exists regarding its performance and adequacy for crisis-based news production. While Millan at *La Vanguardia* commented that he uses it infrequently given the "irregularity" of its results, Giralt at RAC1 explained that "it is a good place to connect with certain sources who have heard you speak and allows you to end up talking to them" a factor that is especially useful when contacting sources "outside your immediate territorial environment". De los Ríos at *Diario Sur*

brought up a more technical issue regarding the use of Instagram when commenting that despite the fact that this platform does not dispose of links except in its 'stories', it is possible to add emojis to news publications in order to attract the attention of the user who generally belongs to a younger market.

With respect to Facebook, journalists' responses reveal that this platform is used not so much for collecting specific data but for more personal reasons such as "compiling testimonies and understanding what the victims have suffered first hand. It is a good place to go "fishing" in this sense" (Giralt, RAC1). Ramírez, from national broadcaster RTVE, took a more technical angle on Facebook when highlighting that this platform offers a great advantage when telling stories since it does not impose a limit on characters, photos and videos thus allowing the public to offer more extensive information on each case.

The plus side: immediacy, accessibility, source facilitation and tracking rival media

Journalists across the board identified both advantages and drawbacks with regard to social media platforms in the information management of emergencies. On the plus side, reporters pointed out the immediacy and the speed for news transmission which these channels offer to monitor events almost in real time. Referring to her coverage of the listeriosis story, Saiz (*El País*) recalls how despite the initial chaos, "the local authorities gave us updated province-by province information constantly in order for us to know if the infection was spreading, an experience which was to prove useful for dealing with Covid". Millan (*La Vanguardia*) coincided with his colleague when stating that social media platforms are particularly useful in the early stages of a crisis when stress levels are high and the demands for immediate updates is constant. Later, he adds, as time goes by and journalists get more of a grip of the situation, a more controlled and slightly more distanced use of social media is made.

In a similar vein, Bonachera at Spanish national radio in Seville points to the number of news leads that Twitter offers and considers that this platform in particular offers a wide variety of trustworthy sources such as the emergency hotline 112, the Emergency Plan for Forest Fires in Andalucía (INFOCA) or the local police force. In this sense she welcomes Twitter's capacity to feed journalists with such updates, a function which "facilitates the task of that journalist who is on frontline duty in the newsroom".

Journalists also pointed out the accessibility of these platforms since "everyone has them at hand" (Millan, *La Vanguardia*). This opinion is shared by newspaper reporter De los Ríos (*Diario Sur*) who considers that sending push notifications –through social media– is the best way to "bring an emergency to users", because it offers the advantage of being fast and effective.

While the role of social media as a "facilitator of witnesses and sources" was highlighted by reporters such as Giralt (RAC1), others pointed to the margin for manoeuvre that social media offer for updating details of the story without having to rewrite and upload the entire article again. While some professionals referred to these platforms' ability to collect aspects of a story which may have been overlooked or undervalued by reporters, all highlighted the value of their deployment in public service. On this final point, Millan (*La Vanguardia*) remarked that "having a channel like Twitter, Facebook or Instagram which allows crisis management teams to launch a quick alert and for people to receive it instantly on their mobile phone or computer makes it almost impossible to find a better tool . . . there is no point of comparison between what sirens did before and what social media can do now".

Social media's capacity for interaction with and tracking of rival publications is highly valued by interviewees. Journalists admitted to regularly using social media platforms for consulting what their colleagues were posting in emergency situations. Far from considering such a practice an inconvenience as regards the possible homogenization of news content, reporters consider such professional shadowing as almost an obligatory professional routine with a view to constantly improving their coverage. In this sense, Saiz (*El País*) commented that:

> While it is necessary that every reporter should have his or her own focus, for me it is also important to know what my rivals were posting in order to contrast my own content and to ask myself "how could that have passed me by?" In crisis situations sometimes it is not clear who to point the finger at and reading what your colleagues are publishing online can help to pull you through (Saiz, *El País*, 2021).

The downside: network "noise", acceleration and the absence of filters

Among the drawbacks of the networks, journalists point out the perverse use of these tools to spread "hoaxes, half-truths and interested truths that end up doing harm because they can create certain climates of opinion or lend strength to rumours that do not make any sense or that are simply lies" (Millan, *La Vanguardia*). The "noise" caused by the networks also concerns journalists, not only because it can mislead reporters and lead them to erroneous or inaccurate information, but also because it can "lead your editor to direct your coverage towards aspects that are not so important and thus hinder the task of reporting" (Giralt, RAC1). Saiz at *El País* agreed with this idea, stating that "if you don't know how to handle social media well in a health crisis, the only thing you are creating is hysteria. Identifying what has happened to whom in crisis circumstances is a key task". By way of example, she recalls that during her coverage of the listeriosis outbreak, "news came out that a woman had aborted as a result of it. In this case, the Health Department asked us to wait in case she had died of unrelated causes. In such cases, it is crucial to know what type of tweets you read, especially when it comes to health issues". When pressed on further problems regarding the use of social media, many interviewees commented on the difficulty of distinguishing between strict news content and anonymous comments and pseudo-information on the networks. In that sense, Saiz spoke of the need to keep a safe distance from the news polarization on the networks and "differentiate between what is important from what is not when faced with an avalanche of information".

While in general the accessibility and the possibilities for information sharing that social media platforms offer to the general public is well received, some journalists criticize this state of affairs as detrimental to their professional practice and their traditionally privileged position as information providers:

> With all due respect a journalist's way of seeing things cannot be the same as any neighbour. During the explosion at the petrochemical plant in La Canonja [Tarragona] we realized that we had the same information as ordinary citizens and so along with the firefighters and Civil Protection we decided that this could not continue. It cannot be that I have the same information as the locals otherwise this would be chaos … We have seen it with the La Palma volcano. We all saw the images of the lava, but our job is to interpret what is happening with more specialized sources (Giralt, RAC1, 2021).

Progress regarding the filtering of information through social media networks according to whether the receiver is a journalist or forms part of the general public is indeed being made. Local governments are developing the Cell Broadcasting system of instant messaging –based on the geolocation data of the user– to ease communication problems when a major emergency occurs and journalists' associations are talking to Civil Defence to see if they can send two kinds of message: one which allows ordinary citizens to receive a clear message through their mobile and another with more information and

greater details to allow journalists to transmit this news content to society.

Whilst journalists are fully aware of the immediacy and scope for diffusion that social media offer for generating news in a crisis situation they showed themselves to be wary that these largely positive characteristics are not employed "to leap over professional barriers in the race to be first to send a tweet" (Millan, *La Vanguardia*) or to "convert a public emergency in a spectacle" (Saiz, *El País*). In this respect, Ramírez (RTVE) stresses that immediacy is not a synonym for reliability given that now "everyone can publish a news story" and that therefore media professionals should take on the task of verifying the authenticity of their news content before publishing. In that sense, all those journalists interviewed coincided regarding the professional dilemma they face between the need to keep a calm head and offer well-sourced and well- structured information and the demands for constant updates and borderline speculation on social media channels. By way of example Giralt (RAC1) comments that the key here is to resist the temptation to rush into stories despite the avalanche of semi-confirmed stories on the networks:

> Running too fast makes you write inaccurate news. A section chief can ask you "And this fire, what consequences can it have?" and many times you rush into a decision and you are wrong. Despite the pressure, you have to pause in the middle of the emergency to have a more reflective look, although sometimes it is very difficult to do so. It is better to wait and see, to observe and then interpret (Giralt, RAC1, 2021).

Saiz (*El País*) felt she was under similar social media driven pressure when covering the outbreak of listeriosis and that calm and patience are as vital as source checking given the sensitive nature of health issues

> When the listeriosis story broke, everyone was on vacation and I kept thinking "if I don't have an expert to corroborate this, I dare not publish it". Behind me I had all the pressure from my section chief saying "hey, this and this has come out" but I preferred to wait and confirm the news or at least have someone I can quote or a lawyer to answer me (Saiz, *El País*, 2021).

As for the distribution of news content between the printed press, 'legacy' audiovisual media and social media in an emergency scenario, journalists point to a recent change in newsroom management of such situations and to a differentiation in news protocols when it comes to channelling their stories. For De los Ríos (*Diario Sur*), a traditional media outlet contains sober and contrasted news content but the way in which this content is communicated varies according to each social media platform. "Some stories are not visually attractive and therefore while they may not be published on Instagram, they can be found on Facebook or Twitter". According to him, "it is the news format –more than the message itself– which dictates on which platform each story is published".

Millan at *La Vanguardia* explains that the dissemination of news through social media has changed from being an individual remit towards a shared newsroom model when commenting that "before it was the journalists themselves who had the Twitter accounts and when something big happened they began to publish but as the social media have become a media outlet almost equal in importance to the printed newspaper itself, these accounts are now run separately by a professional team". As for this second aspect, interviewees such as Giralt (RAC1) admitted that their "more reflexive, calmer and interpretative" news content is directed towards the printed version while the social media are fed with "minute-by-minute information about everything that is happening such as the number of fatalities or those detained . . . it is like having several souls in the body of a single journalist, but in the end it is the result of the same work". All interviewees spoke of a synergy between the "paper world" and the "social media world" and commented how one platform can reinforce another:

> Sometimes when you are incorporating sources into a feature article other fronts can open up before you which may turn out to more useful for minute-by-minute social media reporting or the other way around: when you are doing real-time coverage directed at the social media it is normally because you are working very close to the operational forces on the ground and this tends to open up other informational avenues which can be explored in calmer fashion for the print version. In this sense, they are worlds which are constantly crossing over and overlapping (Giralt, RAC1, 2021).

That said, there is a sense among journalists that the full deployment and consolidation of social media networks as news channels has encroached on the traditional hegemony that print publications exercised. As Millan (*La Vanguardia*) put it succinctly:

> If the [2017] terrorist attack in Barcelona had happened in 1995, the local police would have had no way of directly communicating to the general public. They would have had to walk into a radio station or a TV studio to explain what was happening because they would not have been able to communicate directly to the citizenry in the way they can now. This also means that traditional media are losing some of their hegemony when communicating modern day crises (Millan, *La Vanguardia*, 2021).

One of the most valued characteristics of social media is their capacity for interaction with and tracking of rival publications. Journalists admitted to regularly using social media platforms for consulting what their colleagues were posting in emergency situations. Far from considering such a practice an inconvenience as regards the possible homogenization of news content, reporters consider such professional shadowing as almost an obligatory professional routine with a view to constantly improving their coverage. In this sense, Saiz (*El País*) commented that:

While it is necessary that every reporter should have his or her own focus, for me it is also important to know what my rivals were posting in order to contrast my own content and to ask myself "how could that have passed me by?" In crisis situations sometimes it is not clear who to point the finger at and reading what your colleagues are publishing online can help to pull you through (Saiz, *El País*, 2021).

Social media, journalists and crisis management teams

As for the role played by social media in the relationship between journalists and the emergency crisis management teams at a political level, reporters commented that "official" press conferences were of comparatively limited use in their social media reporting. While they may be useful "in peak moments of maximum tension to take the pulse of what is happening" (Giralt, RAC1) others considered them "overvalued" (Millan, *La Vanguardia*) and largely "propagandistic given that normally they give you only the information they want to share . . . I would never post a news story based on institutional press conferences" (Saiz, *El País*). In the case of coronavirus coverage, journalists complained that the press conference format was largely incompatible with social media reporting given that these meet-the-press sessions were too long –very often up to an hour– and offered excessively repetitive content framed in political language which "made it increasingly difficult to separate the wheat from the chaff" (Millan, *La Vanguardia*) for reporters who were charged with making real time news value calls to attend the demands of their users.

At a technical level, journalists explained that ties between the media and the press departments of the corresponding departments were relatively fluid as those charged with institutional communication were ever more sensitive to reporters' needs and used social media platforms to aid their coverage. In that sense one reporter reminded researchers of the oft-lauded use made of Twitter by the Catalan police force during the 2017 terrorist attacks in Barcelona when information was shared on social media with journalists along with multilingual messages and warnings aimed at the general public and commented that very often all the information he needed was sent by WhatsApp –PDFs included– and that once on the mailing list, it was hardly necessary to ask for further details (Millan, *La Vanguardia*).

In the case of forest fires, Giralt (RAC1) explained that the press chiefs of the fire brigade, Civil Defence and the local police force use social media or private mobile phone communications not only to facilitate information but to "point to where we should look to better follow the emergency and anticipate events". That said, Millan (*La Vanguardia*) denies the existence of any specific plan for cooperation between the media and the institutions when it comes to social media because it is a win-win situation on both sides: "it is a tacit pact. At the end of the day they are inter-ested in the general public being aware of important recommendations and we are interested in sharing them because of their use to our readers and because it is our job".

Feedback and crisis coverage

A final aspect regarding the role of social media and crisis coverage refers to the channel they offer for feedback from users. By way of example, those journalists interviewed recognize that they receive both negative and positive responses on their social media accounts and through the media website. In the first case, reporters admitted to being frequently insulted on Twitter and to being the object of all manner of disqualifications during an emergency. That said, some admit that in certain cases these critical comments can be justified and that journalists should be prepared to accept constructive criticisms as a way of "reminding us that sometimes we are so enclosed in our own world with our own ideas that we may be making mistakes along the way" (Millan, *La Vanguardia*). Ramírez at RTVE was equally self-critical when underlining the importance of knowing when to recognize when criticism from the public is well reasoned and if that is the case, to act accordingly in order to correct what was at fault.

As for the positive side of the feedback debate, journalists highlight the interaction with local citizens and with those directly affected by the story at hand. Saiz (*El País*) explained that as a result of her coverage of the listeriosis outbreak many victims –amongst them, many pregnant women– called her to give their version of events. On this same issue, Giralt (RAC1) is pro-positive on the benefits of the feedback offered by social media:

> As a journalist, social media feedback offers something more than publishing in a newspaper or going on the air. I really appreciate it when readers send you a message or a comment through Twitter and Facebook. The feedback that social media gives you is especially interesting because you discover things that, otherwise, you would not … the most interesting aspect is that the person who wants to communicate through the networks is often the most affected by what has happened. They ask why you haven't looked at one thing more or why you have focused so much on such an aspect. Without being themselves information professionals, they tell you very enriching things (Giralt, RAC1, 2021).

Whether the criticism received be positive or negative, De los Ríos (*Diario Sur*) assured that journalists "always try to be as professional as possible. We try to do our job as best we can to guarantee reliable emergency communication and in the way we see fit". In order to group together the perceptions of those news professionals interviewed for the present study, Table 2 sums up the main findings related to the deployment of social media:

Table 2. Determining aspects of social media use by interviewees

Dimensions	Perceptions
Advantages of the use of social media during the news management of a crisis:	Journalists highlight immediacy and speed with which they can share relevant information in real time. They also point out the accessibility of these platforms which allows them to reach wider publics. They coincide when considering that social media facilitate contact with witnesses, victims and sources, as well as interaction with users.
Challenges of social media use during the news management of a crisis:	The "noise" provoked by social media is a question which concerns the interviewees given their capacity to allow erroneous information to go viral. They coincide in the idea that the biggest ethical challenge during the coverage of an emergency is to verify information before it is published and shared.
The most widely used social media platform in the news management of a crisis:	Due to its multifunctional capacity, Twitter is the most widely employed social media platform in a crisis/emergency scenario: journalists value its capacity for updating information, direct contacts with sources and capacity for gathering opinions in real time.
Levels of feedback with readers/users with respect to crisis coverage:	A division of opinion can be detected here. While some interviewees complain of being submitted to disqualifications or insults during an emergency, others admit that constructive user feedback can contribute towards improving crisis news coverage.
Social media use by crisis management teams:	Those reporters interviewed coincide in the opinion that the deployment of social media by local authorities and/or crisis management teams can facilitate their coverage of emergencies when sharing recommendations and information useful for users.

Source: own elaboration.

5. Discussion and conclusions

Most of the existing research on online news production has focused on how news organisations have adopted social media (Willnat & Weaver, 2018). However, this study addresses in direct fashion social media use among Spanish journalists during crises and emergency news coverage and tries to calibrate their perceived advantages and drawbacks. This study helps to bridge an academic gap that has been identified given that existing research in the field of social media use by journalists in Spain -such as recent contributions by Mayo-Cubero (2021, 2020, 2019)- has shed light on more specific issues such as social media use for sourcing. For this reason, the findings of the research presented here can serve to develop best-practice strategies for journalists in the face of the wide typology of crises that it presents.

In that sense, as the case studies under analysis in this study -environmental emergencies and socio-sanitary crises- are regular features on the news agenda, the deployment of social networks as an integral part of journalistic practice in the coverage of these stories is perceived to be of increasing importance.

Through in-depth interviews, this study points out that Twitter is widely used by journalists in crisis news coverage while Instagram and Facebook play a secondary role in their professional practice, especially because both channels are perceived as platforms with less informative value (RQ1). These re-

sults reinforced previous research about Twitter as a preferred social media platform in crisis communication (Suau-Gomila et al., 2022; Pont-Sorribes et al., 2020; Watson et al., 2017; Bruns et al., 2012).

Interviews with reporters with a wide experience on the 'crisis beat' also reveal that, when they discuss the advantages and drawbacks (RQ2) surrounding the social media debate, three parallel professional narratives can be observed. Firstly, there is considerable consensus regarding the positive contributions of the social media platforms such as interaction and feedback with users or their timesaving capacity for data collection. These perceived advantages concur with the results of existing studies which confirm that social media platforms are widely used by journalists in the news production process (Zhang & Li, 2020), specially as a resource adopted to gather information (Weaver & Willnat, 2016), collect sources, and verify stories (Guylas, 2017; Paulussen & Harder, 2014). In that sense, social media is also perceived by interviewed reporters as a channel which provides updated and on-site information during breaking events where journalists cannot access. These understandings also link to the contributions of Rauchfleisch et al. (2017), who also point out that social media provide an easy interactive communication environment in demanding and highly mobile contexts.

In contrast to this, inevitable drawbacks are also noted such as *infoxication*, the proliferation of unfiltered 'information' on these platforms and newsroom

pressure for premature publication, aspects that has been already pointed out in previous academic contributions such as Eriksson & Olsson (2016) and Oh et al. (2013). A third more nuanced group refers to those issues which act as a "double-edged swords" such as the speed, virality and simplicity of these platforms or what reporters consider the excessively 'open' nature of source access which blurs boundaries between news professionals and citizen informants. In that sense, the results also concur with Mortensen (2015) who indicates that the multidirectional and collaborative information dissemination which characterise the social media environment allow some citizens to present themselves as "connected eyewitnesses" of the emergency. However, as the findings reveal, the "citizen feedback" in social media platforms are not always well perceived by reporters. While some interviewees complain of being submitted to disqualifications or insults, others admit that constructive user feedback can contribute towards improving crisis news coverage because social networks sites can act as a "citizen thermometer" about how the emergency is affecting those users (RQ3).

Our study also points out that the journalists' social media use in crisis and emergency coverage do not generally change their professional norms and values despite social media viralization systems are governed by criteria of popularity and connectivity (Van Dijck & Poell, 2013). In fact, the main challenge perceived by journalists in social media use during crisis events is not to lose "professional criteria", ruled by relevance, ethics and public service values (RQ4).

All journalists interviewed admitted that the incorporation of social media in emergency reporting has reinforced the need for fine tuning their professional criteria when it comes to identifying credible sources and publishing watertight news content along with the necessity for creating their own space in a congested, complex and tense professional environment (RQ5). These understandings also support the idea that in crisis communication journalists become "gatewatchers" (Bruns, 2003) and "sense-givers" (Giuliani, 2016) of the information relayed during the crisis.

As with all academic inquiry, the limitations to this research paper must be illustrated. The reduced -albeit select- nature of the sample has led the authors to guard against overextending the results to which it points. Whilst the experience of those professionals consulted does lend weight to their considerations, extrapolating their comments to form a canon of generalised shared opinion should be avoided. For greater guarantees and to achieve a wider consensus among journalists, the study could benefit by extending the field and canvassing the opinion of a greater number of news professionals. An additional improvement to the study could include the creation of mechanisms for direct dialogue between those reporters charged with crisis coverage which would allow for the greater cross-referencing of their respective opinions.

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