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Six years of public crisis research on social media. A systematic review of the main lessons and guidelines for future studies

Seis años de investigaciones de crisis públicas en social media. Análisis sistemático de las principales aportaciones y guía de recomendaciones para estudios futuros

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Abstract

Research into the use of social media in public crisis management has increased substantially in recent years. However, studies tend to focus on analysis of crises deriving from accidents, natural disasters and health emergencies, with little visibility of crises associated with social or political conflicts. This study seeks to evaluate the state of research relating to the use of social media by governments and institutions in crisis communication. A scoping review, from May 15, 2017 to May 14, 2023, displays the themes receiving the most attention when studying this topic. Some of these were theories, types of crises, social media platforms and nature of the institutions. The main recommendations proposed by the academy for the use of social media in crisis management are then summarised. Towards future crisis communication, the need arises to work on studies focused on political crises, pay attention to such factors as context and globalisation, incorporate new methodologies into research and expand the analysis to include other social media platforms.

Keywords

Crisis communication; social media; crisis management; government communication; scoping review; systematic review.

Resumen

La investigación sobre el uso de los social media en la gestión de crisis públicas ha crecido sustancialmente en los últimos años. Sin embargo, generalmente los estudios suelen concentrarse en el análisis de crisis que son producto de accidentes, desastres naturales y emergencias sanitarias, con poca visibilidad sobre crisis asociadas a conflictos de índole social o política. El objetivo de este trabajo es evaluar el estado de la investigación que existe sobre el uso de redes sociales en la comunicación de crisis de gobiernos e instituciones. Por medio de un scoping review de la investigación sobre este tema del 15 de mayo de 2017 al 14 de mayo de 2023 se han identificado factores como las teorías, los tipos de crisis, las plataformas de redes sociales y el ámbito institucional que reciben mayor interés investigativo. Luego, se sintetizan las principales recomendaciones que propone la academia para el uso de los social media en la gestión de crisis. Con miras a la comunicación de crisis de los próximos años, se destaca la necesidad de desarrollar más investigación sobre las crisis políticas, considerar factores como el contexto y la globalización, incorporar nuevas metodologías y expandir el análisis a otras plataformas.

Palabras clave

Comunicación de crisis; redes sociales; gestión de crisis; comunicación gubernamental; scoping review; revisión sistemática.

1. Introduction

Social media have become established as a means of organisational and institutional communication. On these platforms, where communication is faster, dialogic and interactive (Schultz et al., 2011), organisations make efforts to connect with their audiences and protect their reputation. This occurs in times of relative calm, but also in turbulent situations for organisations, such as during crises. Because they are unpredictable, sudden and chaotic, crises produce a need for people to engage with information about what is happening in order to learn, reduce uncertainty and gain personal control over the situation (Lin et al., 2016).

There is extensive research on the use of social media in crisis situations (Fraustino et al., 2012; Sutton & Veil, 2017; Eriksson, 2018). However, most studies in the last decade have focused on the corporate or organisational level (Olsson, 2014; Seeger, 2022). In recent years, there has been an increasing number of studies on crises and social media in the public sector (Liu et al, 2011; Bruns & Burgess, 2014; Rasmussen & Ihlen, 2017), with an emphasis on emergency situations such as natural disasters and accidents (Rasmussen & Ihlen, 2017). Additionally, in the wake of the COVID-19 pandemic, research has increased, but with a focus on health crises (Dong et al., 2023). Consequently, there is a certain invisibility of studies about other types of public crises, especially those linked to the political sphere.

The state of the academic literature on the relationship between crisis communication and social media is a topic that has been reviewed over the last decade (Cheng, 2016; Rasmussen & Ihlen, 2017; Eriksson, 2018; Bukar et al., 2020; Cheng et al., 2022). Despite this, there is a lack of studies that emphasise crises in the public sector, mainly in the political sphere (Auer, 2016). Attending to this public/political sphere is key to responding to what Chadwick (2019) calls a public communication crisis, which, among other factors, is fuelled by the current social fragmentation and the ineffective use of social media by the authorities (Segado Boj et al., 2015; Davis, 2019). Further research into the types of crises is essential in order to understand the response mechanisms that governments or public institutions should implement in each case.

The present study is a scoping review of research published in the last six years on the use of social media in government and institutional crisis communication. This systematic review aims to identify gaps in the research and to contribute to the discussion about the challenges and opportunities that the digital ecosystem represents in crisis communication in the public sector, especially in situations related to political conflicts.

More specifically, the aim is to answer the following research questions:

1. What is the state of the art in research on the use of social media in government and institutional crises, mainly in political crises?
2. What type of crisis receives the most attention from academia when it comes to researching the use of social media in crisis communication in the public sector?
3. What are the main contributions from academia on social media crisis communication strategies for governments and institutions and what recommendations are made for future lines of research?

1.1. Crisis and communication

Crisis are sudden episodes of public or political interest in which there is a loss of control over information, and which generate apprehension or panic (Pont-Sorribes, 2014). Therefore, communication is a fundamental element in responding to the threats of a crisis. Coombs (2010: 20) defines crisis communication as "the process of collecting, processing and disseminating the information required to manage a crisis situation". Other definitions suggest that this type of communication also involves preparation prior to the outbreak of the situation. Thus, for Johansen and Frandsen (2007, as cited in Johansen & Frandsen, 2010: 431), crisis communication is "the complex and dynamic configuration of communication processes" which change before, during and after a crisis.

In recent decades, academia has worked to conceptualise the field of crisis communication. Frandsen and Johansen (2020a) classify the crisis communication theories into two big groups: those from the 1990s and those from the 2000s. The first group mainly includes the Situational Crisis Communication Theory (Coombs, 2007) and Benoit's (1997) Image Restoration Theory. Another of the theories referred to from this era is the Contingency Theory (Cameron et al., 2007).

The following decade saw the development of models and theories that criticised the linearity of the communication models of the time. Complexity Theory (Gilpin & Murphy, 2010) or the Dialogic Public Relations Theory (Kent & Taylor, 2002) propose to give greater relevance to the role of the audience involved. With the STREMI model, Stewart and Wilson (2016) emphasise the importance of active listening on social media to identify priority audiences. Seeger (2002) and Jaques (2007) suggest approaches to

long-term crisis communication. With the Discourse of Renewal Theory, Ulmer and Sellnow (2002) suggest a shift in the understanding of crises away from blame and responsibility and towards a resilience-based approach.

Crisis are related to terms such as scandals, emergencies or disasters. Although they are related, there are differences between each of these concepts. A scandal is related to public shame (Karl Grebe, 2013). In terms of emergencies, Pont-Sorribes (2014) links them strictly to the public sphere and defines them as "sudden disturbances that cause serious damage to people, property or the environment". In a similar way, disasters are events which cause human suffering and infrastructural damages, usually referring to episodes of natural forces (Boin et al., 2017). Coombs (2010) notes that the difference between the two terms may lie in the level of response required in each case, which is higher in disasters. Reynolds and Seeyer (2005) make a different type of distinction between disasters and emergencies, linking the latter only to health crises.

Risk communication plays a key role in the identification and prevention of incidents. It seeks to "share information with interested audiences regarding the nature, magnitude, significance or control of a risk" (Covello, 1992, as cited in Reynolds & Seeger, 2005). The aim is to prevent risks and make people aware of a possible accident to prepare them in case it happens. Ignoring risks or being incapable of preventing them can provoke the outbreak of a crisis. For this reason, risk communication can be considered as the first phase in crisis management (Falkheimer & Heide, 2006). Reynolds and Seeger (2005), who state that crises are "predictable and systematic", propose the Crisis and Emergency Risk Communication (CERC) model to determine the actions needed in each phase of a crisis.

1.2. Crisis typologies and political crises

One factor that has been of interest to academia is the definition of crisis typologies. Organising crises into different groups allows strategies to be standardised and the most appropriate response to be found on a case-by-case basis (Lerbinger, 2012). These categorisations can be made by considering different factors such as nature or origin, the intentionality of the actors involved or the level of responsibility of the organisation. Gundel (2005) makes a particular classification, taking as a reference two parameters: the degree of influence on the crisis and the degree of prevention.

Although the number of crisis classifications is vast, most of these definitions have been made with a corporate focus and, in the case of public institutions, more emphasis has been given to disasters and emergencies (Coombs, 2007; Ulmer et al., 2006). Consequently, there is little visibility given to crises linked to the political sphere. However, in recent years, authors such as Pont-Sorribes (2014), Auer (2016), Frandsen and Johansen (2020b), or Coombs and Holladay (2023) have conceptualised political crises as a separate typology.

Because they are little studied, political crises lack sufficient conceptualisation or definition (Auer, 2016). However, it can be said that this type of crisis is the one that is born or erupts within the heart of political power. Pont-Sorribes (2014) defines a political crisis as that which is produced "as a result of an abnormality in an institutionalised organisation", i.e., any form of government. Auer (2016) considers that what makes a political crisis is the confrontation between actors in the political system. In turn, Frandsen and Johansen (2020b) point out that what differentiates political crises from other crises is that these are the only ones in which events are "spoken" to transform them into crises. They arise because the parties involved seek to gain or expand power and gain public support, a strategy that Boin et al. (2008) define as crisis exploitation.

In contrast to public crises, where the ultimate goal is the safety of citizens, political crises are about gaining power (Frandsen & Johansen, 2020b). Political crises can develop within political institutions or be imported from other spheres and turn into struggles for public legitimacy. For this reason, the institutional logic of a crisis is more important than its nature or origin. In political crises, parties employ strategies to frame the crisis narrative to suit themselves and influence public interpretations (Frandsen & Johansen, 2020b).

Due to all these particularities and ambiguities, the classification of political crises should not be made according to their nature or origin but based on an analysis of the characteristics and dynamics of the crisis. In line with this idea, Coombs and Holladay (2023) propose four areas into which crises can be categorised: organisational crises, disasters, public health and political crises. The key to classifying crises is focusing the analysis on the differences between these areas (Coombs & Holladay, 2023) and avoiding the generalisation of the recommendations about crisis communication.

1.3. Social media in crisis management

Organisations have adapted crisis communication to the social media format because that is where their audiences are. Giving up on communicating via these platforms means allowing the crisis

conversation to continue without the organisation being able to defend its position (Veil et al., 2011). On social media, organisations collect information to gain a better understanding about the users' perceptions of responsibilities in a crisis and to be able to influence these perceptions (Stieglitz & Dang-Xuan, 2012; Schwarz, 2012; Bruns, 2014).

Although research on the subject has taken traditional crisis communication models as a theoretical basis (Cheng, 2016; Eriksson, 2018), there are proposals focused on the particularities of social media, such as the role of audiences or the characteristics of the platforms. Thus, Austin and Jin's (2016) Social Mediated Crisis Management Model (SMCM), which builds on Jin and Liu's (2010) Blog-Mediated Crisis Communication Model (BMCM), considers the role of audiences and their influence on crisis information management. In turn, the Networked Crisis Communication Model (NCC), by Utz et al. (2013), states that the digital medium used is a factor that determines the effectiveness of crisis communication, even more so than other factors such as the type of crisis.

Research also suggests strategies and practices to improve crisis communication on social media. Thus, monitoring messages allows for a better understanding of which messages are effective during a crisis (Fraustino & Liu, 2017). Similarly, the relationship with the audience is a key issue, involving efforts to build trust (Maal & Wilson-North, 2019) and the generation of a culture of dialogue (Ihlen & Levenshus, 2017). Palen et al. (2010) highlight the importance of leading the conversation during the crisis, for which it is advisable to take advantage of the benefits offered by each platform and the wealth of content (Bruns, 2014; Suau-Gomila et al., 2022). Coordination between institutions at different levels is also advised (Pont-Sorribes et al., 2020; Calloway et al., 2022).

There are a significant number of reviews of the academic literature on the relationship between social media and crisis communication. Bukar et al. (2020) found 21 theoretical reviews related to this topic between 2011 and 2018, although not all of them correspond to systematic studies. In their review, Veil et al. (2011) synthesise and propose effective practices on social media, with the understanding that these platforms are a complement to the traditional media. The study by Simon et al. (2015) investigates the use of social media in disasters and concludes that authorities and organisations incorporated social media into their crisis communication strategies under "coercion" from citizens.

Other studies expose the centralisation which exists in research on the topic. For example, most of the studies use Twitter and Facebook for the analysis (Wang & Dong, 2017; Eriksson, 2018; Cheng et al., 2022). While these two platforms are recognised for their popularity and for facilitating two-way communication and real-time information in crisis situations (Eriksson and Olsson, 2016), there is a risk of generalising the findings to other social networks (Eriksson, 2018). Platforms such as Instagram or TikTok, which are primarily visual in nature, may be more effective in seeking credibility or response from users (Malik et al., 2021; Zhang et al., 2023). Geographical inequity has also been detected in terms of crisis case studies, which focus primarily on the United States, followed by Western Europe and East Asia (Rasmussen & Ihlen, 2017).

One of the gaps identified in systematic reviews on the topic is the paucity of research on political crises. Although the classification can be ambiguous due to the categorisation used by each author for their classification, the evidence shows a clear trend in favour of organisational (Seeger, 2022) or natural disaster-related crises (Eriksson, 2018; Cheng et al., 2022). In recent years, in the wake of the COVID-19 pandemic, the number of studies related to health emergencies has increased (Dong et al., 2023).

Sutton and Veil (2017) anticipate that digital communication will continue to change, evolve and fragment in the coming years. In this landscape, academia should continue generating new models and theories about crisis communication focusing on the digital ecosystem. The study of multidimensional, border-crossing crises involving multiple actors, responsibilities and academic disciplines is one of the challenges in research. For example, cross-border (Boin, 2018) and progressive (Boin et al., 2020) crises pose challenges for the systematic study of crises. Similarly, future research on the topic could extend beyond social media (Soden & Palen, 2018) and address new, more complex forms of information, related to artificial intelligence and the massification of technological products (Imran et al., 2018).

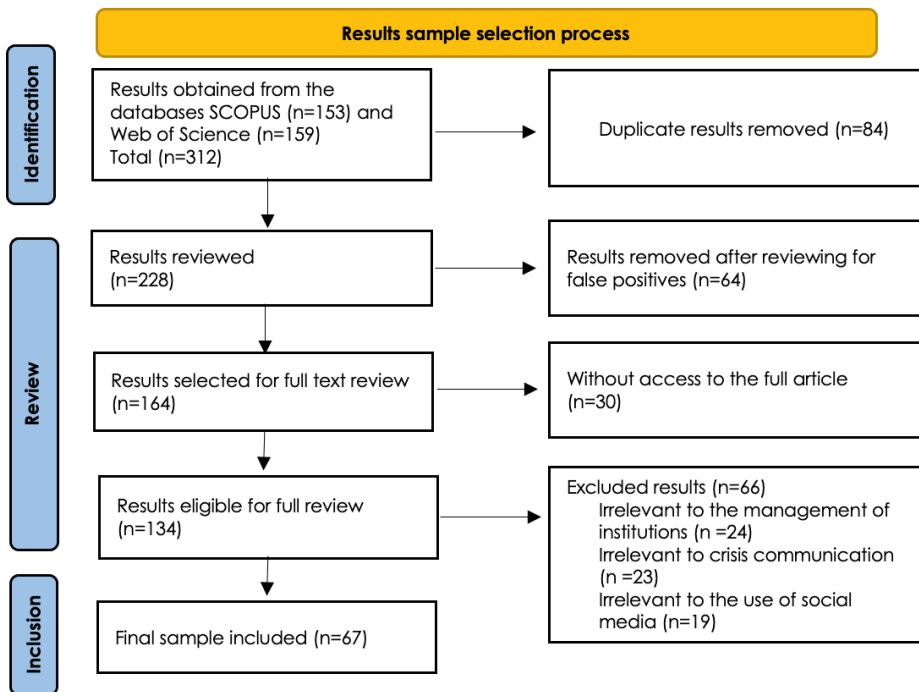
2. Methodology

As was done in previous studies related to the topic (Rasmussen & Ihlen, 2017; Eriksson, 2018; Cheng et al., 2022), a systematic literature review was used in this study to answer the research questions. Specifically, the scoping review method was used, which, as highlighted by Naidoo and Wyk (2019), allows us to "identify different types of evidence in an area of interest and the gaps that exist for future research". To comply with the methodological validation, two protocols referred to by Codina (2021) were followed: the PRISMA framework, to "document the final evidence selection process", and the SALSA framework, to guide the systematic review. The latter consists of four phases: Search, Appraisal, Synthesis and Analysis (Codina, 2021).

The scientific databases SCOPUS and Web of Science were used as sources for the Search phase. The selection was limited to scholarly articles published in English and Spanish within a six-year period, from 15 May 2017 to 14 May 2023. The following keyword search equation was used to obtain preliminary results, both in the titles, abstracts and keywords of the articles: ("crisis communication" OR "emergency communication" OR "crisis management") AND TITLE-ABS-KEY ("social media" OR "social networking") AND TITLE-ABS-KEY ("government" OR "institution" OR "public administration" OR "public sector" OR "public organization" OR "politics"). Thus, we sought to obtain a triangulation of articles related to crisis communication, social media and public management.

In the Appraisal phase, duplicate results were eliminated from a preliminary sample of 312 items. Subsequently, after reviewing the titles and abstracts of the articles, false positives, i.e., results that were unrelated to the subject of the study, were discarded. We then proceeded to analyse the full articles, discarding those that could not be accessed via the aforementioned databases or the Google search engine. Finally, after a full reading of each article, studies that were not directly related to the use of social media in crisis situations from the perspective of public institutions were excluded. The final sample was 67 articles. Graph 1 summarises the process of selecting the final sample base.

Graph 1: PRISMA diagram for the data search process.



Source: Own elaboration

Once the final sample was obtained, we moved on to the article synthesis phase. In order to achieve a systematic extraction of common characteristics of these studies, the recommendations of the SALSA protocol were followed with regard to the definition of analysis criteria and the preparation of summary tables for each of the articles reviewed (Codina, 2021). In this case, the choice of criteria was made according to the objectives of the study. The synthesis scheme is set out in Table 1.

Table 1: Classification of sample analysis criteria

Criteria	Details
Methodology	Scientific methods used in the study
Main results	Main research findings
Theory analysed	Determine whether the study took one or more theories as a basis for developing the research and what this theory was

Country of the event studied	Country in which the crisis under investigation took place (if any)
Plataforma	The social media platform or platforms analysed in the study
Type of institution	The type of public institution that was analysed in the study (if such a distinction is made)
Crisis typology	The type of crisis studied in the article, according to the classification of Coombs and Holladay (2023)
Recommendations	Recommendations or suggestions for future research

Source: Own elaboration

Finally, the Analysis phase was carried out, in which the results found were described and evaluated. This evaluation of the final sample is explained in the following section.

3. Results

3.1. Research methods and countries

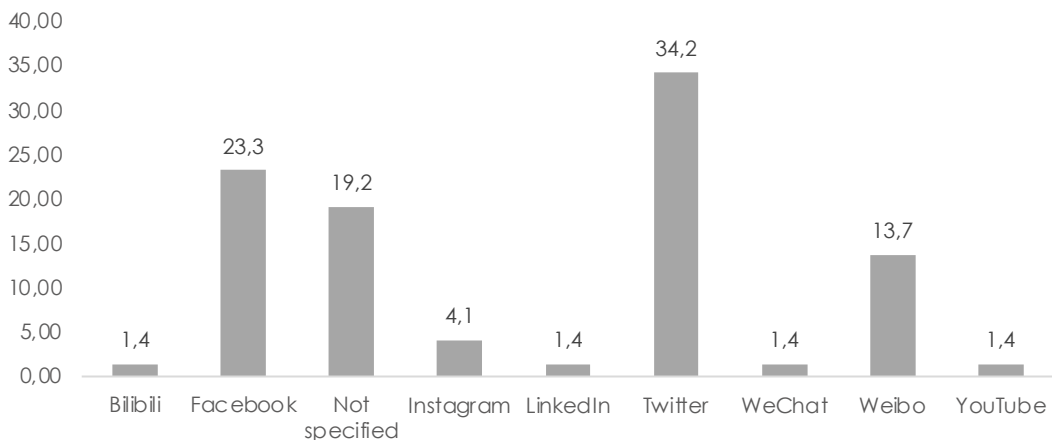
In relation to the methodology used, the results showed that 52.9% of the articles used content analysis. Interviews and data mining were the next most-used techniques, with 9.2% in both cases. In smaller proportions, there were cases where surveys were used, 6.9%, and experimental methods and literature reviews were used in 4.6% of cases each. It is worth mentioning that, of the 67 articles reviewed, 20 of them used two different research methods. The most common combination was content analysis and interviews which appeared in six of the cases.

In addition, 88% of the articles were found to include a real crisis situation for analysis. When sorted by country, crisis situations from 31 different nations were found. Those that were represented most were China, with 20.6% of the cases studies, the United States with 14.7%, Spain with 10.7% and India with 4.4%. The remaining countries were represented by less than 3%.

3.2. Platforms and type of institution

Eight different platforms were found to have been analysed. As shown in Graph 2, a total of 34.3% of the studies chose Twitter, now X, as the platform of reference, while 23.3% used Facebook. Weibo was analysed in 13.7% of the studies. The other platforms found in the sample were Instagram, Bilibili, YouTube, LinkedIn and WeChat. A total of 14 of the articles reviewed did not include the specific analysis of a particular platform.

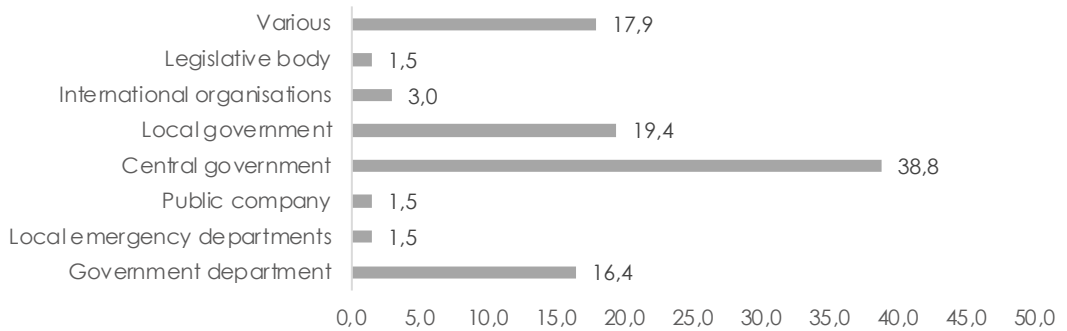
Graph 2: Classification of the platforms analysed in the articles according to the percentage



Source: Own elaboration

Regarding the type of institution analysed in the selected texts, it was found that most of the articles focused on the study of crisis communication in central governments. A total of 38.81% of the sample corresponded to this category. Graph 3 details the results with respect to the type of institution analysed.

Graph 3: Type of institution analysed in the articles



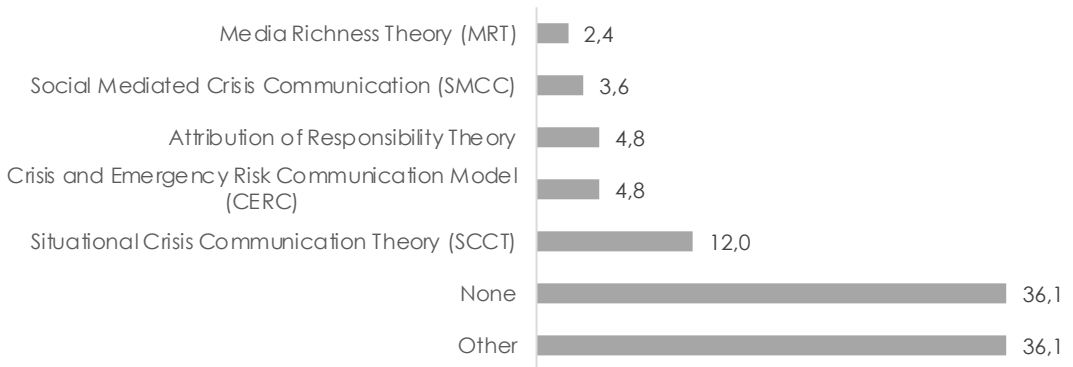
Source: Own elaboration

3.3. Linked theories and types of crisis

It was found that a significant number of the articles analysed used a specific crisis communication theory or model as a conceptual starting point. In some cases, examples of crises on social media were analysed from the approach of these theories, and in others, the aim was to make contributions to the theories by taking into account innovations in social media. Thus, 36 different theories or models were found in 37 of the 67 articles reviewed. In 30 papers no specific theory was mentioned, without considering the references in the theoretical framework.

As Graph 4 illustrates, the theory most cited by the authors was Coombs' SCCT (2007), which was taken as a theoretical basis in 10 articles. Weiner's attribution theory (1985) and Reynolds and Seeger's CERC (2005) were included in 4 articles each.

Graph 4: Classification of the platforms analysed in the articles according to the percentage



Source: Own elaboration

Another criterion reviewed was the type of crisis in the cases studied in the articles. The classification followed the categorisation of the four knowledge areas of crisis communication (Coombs & Holladay, 2023), used in studies such as Vogler and Meissner (2023) and Seeger (2022). These four areas are: organisational crises, disasters, public health and political crises. Although the types of crises were sometimes intertwined, the central topic of each study was taken as the principal criterion, similarly to what was done in Seeger's (2022) study.

Table 2: Classification of the articles according to the type of crisis studied

Crisis typology	Quantity	Percentage
Organisational	2	3%
Disasters	16	25,4%
Public Health	39	58,2%
Political	9	13,4%

Source: Own elaboration

As shown in table 2, the type of crisis most studied was that of public health, which represented 58.2% of the articles analysed. In this category, studies which analysed crises related to illnesses, epidemics or, mainly, the COVID-19 pandemic were found. Disasters represented 25.4% of the crises analysed. A total of 13.4% of the studies were focused on political crises. Finally, two articles were found on organisational crises, related to reputation in institutions and local governments.

3.4. Main findings

The main results of the texts chosen from the sample were also analysed. While it would be foolish to attempt to classify the findings of these studies with any accuracy, it was determined that it was possible to group these results according to the conclusions to which they refer. For this reason, although we avoid quantifying these categorisations, the main findings of the articles are presented qualitatively.

3.4.1. The influence of the phases of a crisis

It was found that several articles obtained results related to the influence of the phases of crises on the communication strategy used on social media. The study by Padeiro et al. (2021) reveals that the frequency of local government publications increases slightly in the initial period of a crisis, increasing at the peak of the crisis and decreasing as the crisis enters a sustained phase. Following the same line, the communication objectives during a disaster change in its different phases. The pre-crisis stage is linked to providing preventive information, while at the peak of the emergency the aim is to convey reassurance about the measures being taken (Arora et al., 2022), to mobilise citizens to carry out specific actions and to keep the population informed. In the post-crisis stage, the focus is on helping citizens and expressing emotional support (Liu et al, 2018).

The phases of a crisis also determine the choice of topics that are communicated. For example, content related to prevention measures or updates on the progress of the situation is usually published in the pre- and early stages of crises, while in the critical stage, content is communicated on the actions being taken to contain the crisis (Liu et al., 2018; Peña & Lillo, 2020) and content focused on offering support and seeking social cohesion (Pang et al., 2021). As the crisis is prolonged, it is also important to communicate hope (Arora et al., 2022) and recovery to give the population certainty that there will be a way out of the crisis (Pang et al., 2021).

Failing to plan communication in this way can lead to dissonance between the official messages and the information needs of the public, which evolve as crises progress (Deng et al., 2020). The duration of a phase plays a critical role in communication, given that, as Rao et al. (2020) highlights, "information generated on social media could easily turn a situation that is under control into an adverse one". Understanding these different stages allows changes to be made to the style and type of publications that are shared on social media. For example, the early stages are more associated with a type of unidirectional communication, since informational urgency is higher, while in the sustained phases of a crises, it is recommended to use bidirectional communication to show support to citizens (Shi & Medina, 2021).

3.4.2. Effective practices in crisis communication on social media

Other common results in the reviewed articles were related to effective practices in the management of social media for crisis communication. Some studies reveal the positive link between timely communication and information transparency with perceptions of honesty (Yu et al., 2017; Zheng, 2023). Others demonstrate the importance of maintaining a steady publication pace during a crisis in order to bring citizens closer to official sources and build trust (García-García & Díaz-Rodríguez, 2023; Kim, 2022). In terms of immediacy and informative frequency, Pulido-Plo et al. (2021) mention the constant trickle of information as a strategy to adapt communication to citizens' needs and information habits.

The monitoring and analysis of users' sentiments was also one of the recommended practices. In her study on crisis communication in public emergencies, Cannaerts (2020) highlights that monitoring trends in social media is important because it allows for the scanning the information needs of citizens and preparing messages that respond to these concerns. In terms of the analysis of users' sentiments, it is a task that can help to develop different communication strategies with different groups of the population, and thus address the more specific needs of these people (Ragini et al., 2018).

Additionally, some studies provide evidence on the effectiveness of combining informative and emotional resources during crises. For example, Luo et al. (2021) show that content with a positive and emotional tone generates a greater response from users. This finding is shared by Zhu and Hu (2023), who found that emotional content complements the informative content and strengthens communication. Emotional content is key to avoiding information fatigue and addressing people's psychological needs (Zhu & Hu, 2023).

Emotional support on social media can play a more important role in crises linked to natural disasters. As highlighted by Elsamni (2018), data analysis can help to identify victims and offer direct support. This kind of support can be done with resources additional to social media, which amplify the news and emotional information for users. In this sense, Saroj and Pal (2020) indicate that within people's informative interests in crises we find the need to have access to additional support material to approach the situation.

3.4.3. Coordination between different institutions

Several articles that were reviewed had findings that highlighted the importance of inter-agency coordination in social media. In some cases, it was found that the lack of cooperation and coordination of crisis communication strategies leads to message dispersion (Pérez-Curiel et al., 2023). Other studies reveal shortcomings in the use of social media in local government and proposes that coordination between different offices in the same jurisdiction can help improve communication outcomes (Mitcham et al., 2021; Knox, 2023).

This coordination is important both in institutions at the same level and in those of different hierarchical ranks. Hagen et al. (2020) see a need for coordination at different institutional levels, as crisis communication varies to some extent according to the scope of authority, i.e., there is a difference between the local and state level. Thus, the integration of the strategy on different levels of government facilitates the flexibility and agility to respond to crises (Li et al., 2021).

3.4.4. Factors influencing the perception of the crisis

To a lesser extent, other findings highlighted factors that influence citizens' perceptions of government and institutional crisis management. One of these factors is the historical, political or cultural context. Researching this information allows us to understand crisis communication in a country both temporally and structurally (Zhao, 2021). Zhang et al. (2020) highlight the role that collective memory, which is structured in social media, can play in citizens' perception of and response to a crisis.

Political ideology can also influence citizen perception of crises. Sometimes, even the issue of the crisis itself is no longer the focus of social media narratives, being replaced by collateral discussions that are more related to political issues than to the incident itself (Ferra & Nguyen, 2017; Pont-Sorribes et al., 2020). Similarly, citizens' participation in social networks is motivated, among other factors, by their political benefits (Islam et al., 2021), understood as the interest in disseminating information that aligns with their ideas or political affinity and avoiding replicating information that goes against their preconceived ideas.

Finally, the degree of responsibility attributed to the institution also plays an important role in generating a positive or negative perception. Sometimes, this attribution can have political roots. For example, during the COVID-19 pandemic, it was more likely that a republican voter attributed less responsibility for the crisis to the government of Donald Trump (Zhang et al., 2022). In other cases, the degree of blame designation is determined by the type of crisis and the institution's initial response to the outbreak of the crisis. In these situations, a high level of attribution of responsibility towards an institution increases negative evaluation and decreases trust (Hämpke et al., 2022).

3.5. Recommendations for future studies

Finally, the recommendations for future research proposed in the papers were reviewed. For this, the ideas expressed by the authors in the articles were taken as direct quotes to avoid making interpretations. For this reason, in cases where no explicit proposal for future research topics was expressed, this situation was indicated. After this review, the different recommendations were grouped into categories which synthesised the characteristics of these proposals.

A total of 57 of the 67 articles were found to propose lines of future research or suggestions for further studies related to the topic. After the analysis, it was possible to synthesise the recommendations for the studies into six categories. These categories and their definitions are described in Table 3.

Table 3: Classification of the main recommendations for future research

Recommendation	Objective	Number of references
Test the communication models or theories used in the study	Check the validity of the model or theory by extending its use to other cases	16
Investigate the same or a similar crisis case in other political, social or cultural contexts or in specific population groups	Check if the results of the study remain the same when applied to other contexts	14
Expand research on users' perceptions of crisis management	Evaluate the effectiveness of crisis communication policies and strategies on the social media of governments and institutions	12
Investigate the use of other social networks in the same crisis case studied	Compare communication management and its impact across different platforms	6
Study a longer period or analyse a crisis in all its phases	Understand the evolution of crises over periods of time as well as the changes in communication management in the different phases	6
Expand research on the use of a specific platform	Obtain a more complete vision of the particularities of crisis communication on a specific platform	3

Source: Own elaboration

The main recommendation for future lines of research was related to the expansion of research on the theories or models proposed in the articles. In their study of Norwegian Prime Minister Erna Solberg's narrative during the pandemic, Arora et al. (2022) call for further studies to investigate the framing strategies of political leaders and policymakers in describing situations, actions, issues and responsibilities during crises. Another group of articles recommended extending future research to the analysis of other contexts, including political, social and cultural. Adegbola and Okunloye (2022), for example, propose that further research should analyse how the level of democracy in a country may be a determinant in shaping social media perceptions of a government's crisis management.

Recommendations were also found related to the development of studies on crisis communication from the point of view of social media users. This is the case of works such as that of Shi and Medina (2021) or Hagen et al. (2020). From this category also emerge other recommendations linked to the use of other methodologies in order to obtain more in-depth analyses of citizens' perspectives. Li et al. (2021) suggest the incorporation of experimental methodologies to analyse the effectiveness of crisis communication, while Turunen et al. (2022) propose the use of other qualitative research techniques that deepen the analysis of user responses on social media.

Another suggestion that became apparent was to develop more research focused on social media platforms other than the one in question. This was the case in the study by Contri et al. (2023), who propose analysing communication strategies on other platforms such as Twitter or Instagram, or Loiti-Rodríguez et al. (2021), who propose further study on the informational roles of YouTube channels and the relationship between content type and format of the videos posted.

Finally, other suggestions put forward in the articles were to extend the investigation of the cases studied to other phases of a crisis or to entire periods of these events. In this line, we find the study by Luo et al. (2021), in which the importance of investigating big data and artificial intelligence in crisis communication is highlighted. Other proposals revolved around studying the evolution of strategies, messages and the type of content published by institutions according to the different phases of a crisis (Malik et al., 2021; Padeiro et al., 2021).

4. Discussion and limitations

This study seeks to update the state of academic research on the use of social media in crisis situations by institutions and governments. Upon examination of the articles in the sample, certain overlaps with previous studies were found. For example, the results showed that most of the literature on the subject analyses crises on social media by focusing on the use of Twitter and Facebook. This coincides with the findings from other studies (Rasmussen & Ihlen, 2017; Wang & Dong, 2017, Eriksson, 2018). However, in this study, there was evidence of an increase in the analysis of Weibo compared to other systematic reviews.

Some of the findings confirmed results of other recent studies, but with important nuances. This study corroborates the findings of Wang and Dong (2017) and Cheng et al. (2022), which show that the SCCT (Coombs, 2007) is the most widely referenced theory in the literature. However, unlike these previous reviews, we found substantially fewer references to Image Repair Theory (Benoit, 1997) and, on the contrary, more consideration of Reynolds and Seeger's CERC (2005). Other studies show a concentration of case studies in the United States (Rasmussen & Ihlen, 2017; Eriksson, 2018). However, this study revealed that China is the country where the relationship between crises and the use of social media in institutions and governments has been studied the most. It is followed by the United States and Spain.

In terms of crisis type, while other studies demonstrate a concentration of crisis research focusing on natural disasters (Eriksson, 2018; Cheng et al., 2022), the results of this research reveal the impact that the COVID-19 pandemic has had on the academic literature in recent years. Furthermore, the lack of research focused on political crises is corroborated. More knowledge is needed on the role played by the political factor in a crisis, taking into account the dispute for power, as well as the interest or disinterest of citizens in discussing politics and informing themselves about political issues (Vaccari et al., 2013).

Among the main findings, the importance of understanding the different phases of a crisis for the design and implementation of an effective communication strategy was identified. Other studies presented effective professional practices for social media management in crisis communication, such as immediacy and transparency, as well as the importance of inter-institutional coordination.

The authors recommend maintaining a constant and fluid dialogue with citizens on social media and providing them with additional information resources to gain further information. In order to make decisions, it is recommended to implement sentiment monitoring and analysis to identify people's information needs. Other research highlights the importance of context - historical, cultural and political - which largely determines how citizens interpret crises. In this sense, political ideology and the media narrative surrounding the crisis are influential in attributing greater or lesser responsibility to a government.

Finally, there were some common recommendations for future research proposed by the authors of the different studies. Some of these suggestions propose that further research should be carried out on the same crisis situations, but in other contexts, on other platforms, over longer periods of time, or in different crisis phases. Similarly, they suggest that further studies could test the models or theories used in the work. Some of the literature urges the incorporation of new methodologies that allow for an in-depth study of the role and behaviour of users in crisis episodes and their perception of the governments' and other institutions' management of the situation.

This study has some limitations. Firstly, since the period under review includes the two years of the COVID-19 pandemic, many of the papers reviewed focused on this issue. Future literature reviews may reflect different results once the interest in researching the pandemic crisis has decreased. Secondly, the study considered papers written in English and Spanish, which may have affected the visibility of crisis analysis in other contexts and geographical locations. Finally, given the multidisciplinary nature of crisis management, limiting the sample to academic articles from two databases, as well as the keywords selected, may have excluded valuable results. Although the procedure chosen for the review is one that is accredited by academia, considering other types of sources could expand or qualify the findings obtained.

5. Conclusion

Based on the literature consulted for this research, it can be considered that this work represents the first systematic review focused specifically on assessing the state of the art of social media crisis communication for governments and institutions. The findings show that there is a deficit of studies related to the use of social media in crisis communication when dealing with political crises. Research is needed on the conceptualisation of this crisis typology, its characteristics and dynamics.

There is also a need to develop literature on the strategies and uses, as well as the challenges and opportunities, offered by social media for political crisis communication. To this end, elements such

as the conflict between actors, the search for discursive legitimacy, the role of the media and the influence of ideology and the political affinities of citizens must be considered in the social construction of the causes, responsibility and possible solutions to the crises.

Future research could delve into the particularities of other platforms such as Instagram, YouTube or TikTok, where there is currently a research deficit. In addition, it is important to incorporate new methodologies that allow for a more in-depth exploration of user perceptions in crisis episodes. Similarly, more research needs to be done on the influence that context has on crises and the relationship between technology and cross-border crises. Due to the continuous development of technologies, existing theories and models need to be tested on a frequent basis.

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