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# Assist or accuse? Identifying trends in crisis communication through a bibliometric literature review

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## Abstract

Communication has always been key to crisis management research, but even more so in recent years, from multiple disciplinary angles. In this bibliometric study and review of the literature, we aim to identify different clusters of crisis communication research in the literature and whether and how much these crisis communication research clusters overlap. With different fields taking an interest in crisis communication, we ask ourselves where the interests of these fields overlap, and to what extent the different communities are aware of each other's work. Apart from offering an overview of topical clusters in crisis communication research and connections between those clusters of studies on crisis communication, we identify and explain two main approaches to crisis communication: a political or accusatory approach, and a functional or assistory approach. We conclude in our study and discussion that these approaches may need to broaden their research horizons to ensure the applicability of crisis communication strategies beyond the countries, media platforms, and audience orientations that have predominantly shaped the existing research landscape.

## KEYWORDS

bibliometric review, crisis communication

## INTRODUCTION

A well-chosen communication strategy in the midst of a crisis may provide a message of hope and set a beacon of light in dire circumstances. There are many inspiring examples of public leaders rising to the challenge and bringing communities together after a calamity. George W. Bush became an instant hero when he took up a megaphone on the rubble of the World Trade Center in New York in 2001 with his now famous “bullhorn speech” (Boin et al., 2006). Similarly, Prime Minister Ardern from New Zealand gained international recognition for her empathic speech and decisive leadership following the Christchurch Mosque shootings. Her speeches emphasized unity, tolerance and compassion in the face of hate, when she voiced that: “They were New Zealanders. They are us,” and reached out to the Muslim families that lost their loved ones: “We cannot know your grief, but we can walk with you at every stage” (Besley & Peters, 2020). President Emmanuel Macron addressed the French nation with a similar message of unity following the devastating Notre-Dame Cathedral fire, where he focused on rebuilding the national symbol of France. These examples inspire and ignite the compassion and altruism that we so often see in societies during the so-called “honeymoon phase” after a crisis or disaster.

Indeed, crisis communication forms a unique instrument in the hands of skillful public speakers, but for those less capable, poor utterances may shatter reputations. A slip of the tongue may turn into a symbol of all that is going wrong, when those in charge fail to grasp the severity of the situation. We might all remember the CEO of British Petroleum Tony Hayward, sighing “there is no one who want this thing over more than I do, I would like my life back” in front of cameras after the Deepwater Horizon oil spill (Lyons, 2011). It became a symbol of the oil industry only caring for themselves, instead of taking adequate safety measures to protect the environment. Likewise, one might also remember the bleeding man being dragged off by stewards across the aisle of a United Airlines plane that was overbooked. The CEOs reaction to downplay the situation and blame the passenger became a symbol of a company that did not care about its customers (Benoit, 2018). A similar reaction was seen in the Volkswagen scandal, when its CEO, Martin Winterkorn, did not admit to any wrongdoing, while the opposite was obviously true (Jong & Linde, 2022; Jung & Sharon, 2019). Still, such missteps are not unique to corporate leaders. The picture of President Bush (the same one as above) looking through the window of Air Force One after Hurricane Katrina, instead of putting his boots on the ground, reinforced the image of a president not caring about the African American communities hit by the disaster (Sylves, 2006). It shows that how a leader reacts to a crisis sets the tone for the public image and may devastate or salvage corporate reputation.

Organizational leaders can make a big difference with effective communication in the aftermath of a crisis. While crisis communication unfolds in the public as well as the private sphere, the field of crisis communication portrays a strong “managerial bias” (Waymer & Heath, 2007), with a focus on corporate case studies (Arendt et al., 2017). Crisis communication from this public relations point of view is about defining and testing crisis response strategies, with the purpose of protecting brands and reputations. Consequentially, Hayes et al. (2017) called for a new paradigm, as crises equally affect organizations outside of the corporate arena. Indeed, there is an opening to engage in research on crisis communication from a more public perspective, which aligns with the increasing attention to the political dimensions of crisis management (Boin & McConnell, 2008; Boin et al., 2006; Kuipers & Welsh, 2017) and the politics and narratives that define and shape a crisis or disaster (Kelman, 2020; Strolovitch, 2022; Tierney, 2019). In this context, crisis communication is discussed in terms of public leadership and the

role of public leaders in making sense of what happened, and placing it within a broader perspective in the aftermath of crises (Boin et al., 2006). This perspective on crisis communication gained traction in academia through case studies discussing the aftermath of 9/11 and Hurricane Katrina (Jong et al., 2016).

Communication has always been key to crisis management research, but even more so in recent years, from multiple disciplinary angles (Diers-Lawson, 2020; Polat & Seyfi, 2023). Similar to the entire field of crisis and disaster research, nowadays, most of the work finds its roots in a diversity of disciplines including political science, public administration, sociology, communication studies, business administration and organization science (Boin et al., 2017; Wolbers et al., 2021). Hence our research questions: are there different clusters of crisis communication research in the literature, how much do these crisis communication study clusters communicate, and where—if anywhere—do they connect to each other? With different fields taking an interest in crisis communication, we focus on where the interests of these fields overlap, and to what extent different communities are aware of each other's work.

## METHODOLOGY

In this editorial, we seek to map the research field of crisis communication to highlight the status quo and define paths for future research. We chose to conduct a bibliometric analysis because it allows for a performance evaluation of the corpus of articles found, to identify and evaluate groups of researchers, and to assess the impact of their activity in a particular research field (Cobo et al., 2011). It will reveal the most cited researchers and works in the field, and we will probe into those works to see what they build on, whether they cross-reference each other, and what their main take on crisis communication is.

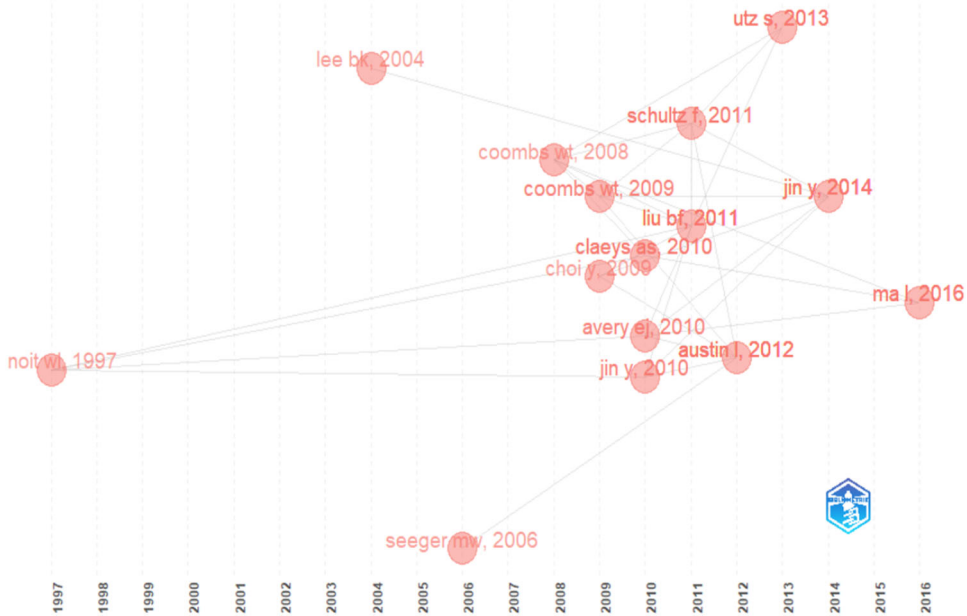
For the collection of data, we used Web of Science, from which the data were downloaded on August 7, 2023. Web of Science is one of the largest science databases in the field and often referenced and employed as a database for bibliometric analysis. The data was limited up to and including 2022 to encompass the entire corpus of articles on crisis communication before this year. The search only included English language results. To cast the net as wide as possible, the search term: “crisis communication” was used in the search for data collection. The search (all fields) yielded 1899 results on crisis communication.

The topic modeling analysis allowed us to identify the most prevalent topics within the corpus. We ran a bibliometric analysis and a topic modeling analysis in R, using the packages *Bibliometrix* and *STM*. We produced additional statistics using the visualization software *Gephi*, as well as additional visualizations with the software *VOSviewer*. We used *Gephi* to analyze the inter-edge prevalence, which informed us on the degree to which different clusters communicated. Finally, additional statistics extracted from *Gephi* provided the list with manuscripts with the highest betweenness centrality. This provided insight into the relation between the different manuscripts and clusters. The next section will discuss the main descriptive results, which can also be found in the Appendix B.

## RESULTS

The term “crisis communication” first showed up in 1980; however, only with the 1997 article “Image repair discourse and crisis communication” by William Benoit did crisis communication begin to build as a separate field of research.<sup>1</sup> Figure 1 shows how other prominently cited works all build upon and refer back to Benoit (1997).

Historical Direct Citation Network



**FIGURE 1** Historical direct citation network.

The historical direct citation network indicates that the 1997 Benoit article fathered the field, as the article precedes most other articles in the corpus (the corpus only contains four articles from before the Benoit article) and the article is cited in most of the most influential articles in the corpus.

As of the end of 2022, the field comprises 1594 unique texts available on Web of Science. Beyond William Benoit, the most influential and productive authors include Timothy Coombs, Yan Jin, Brooke Fisher Liu, and An-Sofie Claeys.

The most cited articles overall are:

Coombs, W. T. (2007). Protecting organization reputations during a crisis: The development and application of situational crisis communication theory. *Corporate Reputation Review*, 10(3), 163–176. (**1015 Citations**, 64.4 per year) (most citations total).

Kim, S. J., & Bostwick, W. (2020). Social vulnerability and racial inequality in COVID-19 deaths in Chicago. *Health Education & Behavior*, 47(4), 509–513. (**288 Citations**, 72.0 per year) (most citations per year).

Benoit, W. L. (1997). Image repair discourse and crisis communication. *Public Relations Review*, 23(2), 177–186. (**590 Citations**, 21.9 per year) (second most citations total).

Houston, J. B., Hawthorne, J., Perreault, M. F., Park, E. H., Goldstein Hode, M., Halliwell, M. R., Turner McGowen, S. A., Davis, R., Vaid, S., McElderry, J. A., & Griffith, S. A. (2015). Social media and disasters: A functional framework for social media use in disaster planning, response, and research. *Disasters*, 39(1), 1–22. (**388 Citations**, 43.1 per year) (second most citations per year).

The biggest journal of the field is by far *Public Relations Review* (271 articles), followed by the *Journal of Contingencies and Crisis Management* (77), and *Corporate Communications* (65).

From a geographical point of view, the United States dominate the field with 727 articles (46% of total), followed by China with 107 articles (7.9% of total). Nevertheless, articles with a corresponding author from the Netherlands, which comprise only 3.0% of the corpus are more frequently cited at 39.3 average citations per article compared to 26.2 for US articles. Western countries are both the main producers and main collaborators within the field.<sup>2</sup>

Topic-wise, the field covers public relations in crisis contexts (especially corporate reputation management), social media research, and pandemic research.<sup>3</sup> The most commonly occurring keywords when disregarding the words “crisis” and “communication” point toward a mix of COVID-19 research (“COVID-19”: 190), social media research (“social media”: 291 & “Twitter”: 76), PR-related topics (“Public relations”: 105 & “Reputation”: 53). These findings correspond with the dominant articles and journals of the field as demonstrated above.

## Clusters in the bibliographic networks: The functional and assistory approach

If we look at the bibliographic networks in Figure 2, we identify three clusters, which together indicate two dominant approaches in the field.<sup>4</sup> We distinguish a functional or “assistory” versus a political or “accusatory” approach to crisis communication. In the assistory approach, scholars focus on how crisis communication is used to provide help or support to a person, community, or cause. In the accusatory approach, scholars denote the politics of crisis communication, which involves allegations,

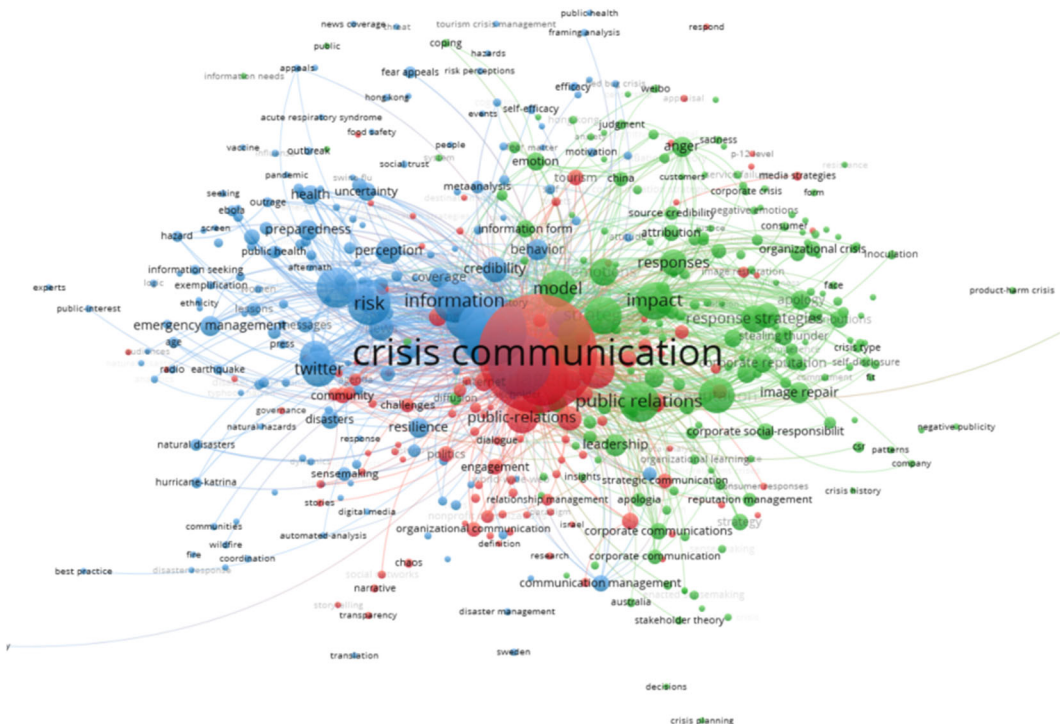


FIGURE 2 Bibliographic networks (VOS viewer).



**TABLE 1** Top-15 words by cluster in bibliographic networks (VOS viewer).

Top 15 words by cluster		
Red cluster (political/accusatory)	Green cluster (political/accusatory)	Blue cluster (functional/assistory)
Crisis communication	Public relations	Social media
Management	Impact	Communication
Crisis management	Strategies	Crisis
Public-relations	Model	Risk
Organizations	Reputation	Information
Facebook	Trust	Media
Image repair discourse	Discourse	Risk communication
Framing	Emotions	Twitter
Image	Response strategies	Disaster
Internet	Responses	Online
Organization	Responsibility	Credibility
Legitimacy	Leadership	Perception
Performance	Perceptions	News
Community	Image repair	Behavior
Engagement	Anger	Coverage
Theme: PR and image repair	Theme: Perception of PR strategies	Theme: Risk/disaster communication and social media

attribution of responsibility, or exculpatory actions towards other stakeholders (see Table 1).

The functional or assistory approach includes studies that focus on the mitigation of (mostly physical) harm for individuals and communities in crisis (Drabek, 2007; Nohrstedt et al., 2018). Appendix B shows how one cluster (blue) clearly demonstrates this “assistory approach” and combines the topics risk, crisis and disaster communication with social media. This cluster encompasses discussions about suitable methods for reaching out to individuals in danger, such as deliberating on the significance of cell broadcasting and social media during crisis situations (ibid). In research on disasters, crisis response, and emergency management, it pertains to those harmed by the materialization of a risk that they did not produce themselves as an organizational or political entity (Kuipers, 2023; Kuipers & Wolbers, 2022). These situations occur, for instance, when there is a terrorist threat or attack, an infectious disease outbreak, an earthquake or tsunami, or major power outage.

The accusatory approach in crisis communication is about pure strategy and politics: aimed at dodging accountability and blame, repairing reputations, remaining in power, and justifying or legitimizing unpopular interventions (cf. Nohrstedt et al. [2018] political approach). The two clusters corresponding to this approach in Figure 2 (the red and green clusters) appear to be two sides of the same coin; the red cluster focuses on the “accusatory approach” to crisis communication, and the green cluster is about the impact and perception of such accusation and blame strategies (see Table 1). The crisis cases studied need not be dramatically different, but the focus of research shifts from those at the receiving end of crisis communication to those on stage: political leaders, corporate executives, chief administrators, and their watchdogs and opponents.

The overlap in cited authors and cited works that dominate the red and green clusters further corroborate this impression (see: Appendix B, figures and tables on top 10 manuscripts by cluster). In the next sections, we will discuss in more detail what the two different approaches are about.

## The “assistory” approach to crisis communication

Crisis communication from this perspective serves to explain the crisis, its consequences, and what is being done to minimize the consequences. It should also offer “actionable advice, explaining what should be done, by whom, and why” (Boin et al., 2013, p. 85; cf. Drabek, 2001; Fearn-Banks, 2007). Of particular concern here is that disasters often are the “result of a crisis in the communication process, or a result of a communication breakdown” (Rodríguez et al., 2007, p. 479). The communication breakdown in turn can be a result of the disaster: damage to information and communication infrastructure that reduces the availability of and access to information (Houston et al., 2015; Shklovski et al., 2010).

Not surprisingly, the crisis and disaster literature has jumped on the bandwagon of social media as a key innovation in communication technology. Such technology offers potential solutions to traditional media platforms that tend to breakdown during disasters, offering new and different potential for increased information capacity, dependability, interactivity, and outreach (Fraustino et al., 2012; Jaeger et al., 2007; Mulder et al., 2016; Reynolds & Seeger, 2012; Schmidt et al., 2018). Disaster communication through social media contrasts with traditional media platforms, which are more limited because traditional media messages are normally created by a single source and disseminated “one-way”: to large audiences, defying opportunity for interaction and participation by the audience (Houston et al., 2015). During crisis and disasters an ideal emergency communication system would operate as a “low-cost, easy-to-use, scalable, mobile, reliable, and fast network,” include geographic information systems and visualization tools, and offer capacity for both one-to-many, and many-to-many communication. Social media normally have many of these characteristics (Houston et al., 2015, p. 4, quoting Mills et al. [2009, pp. 12–13]), and with the technological advancement, their use and availability has proliferated in the past decade.

In terms of content, disaster communication approaches, such as the Crisis and Emergency Risk Communication model (Reynolds & Seeger, 2012) and the Disaster Communication Intervention Framework (DCIF) (Houston, 2012), concentrate on the mitigation of harm. Reynolds (2006, p. 249) departs from the perspective of public health emergency research at the Centers of Disease Control and stresses the use of disaster communication to “prevent further illness, injury, or death; restore or maintain calm; and engender confidence in the operational response.” The DCIF framework casts its aims broader than mere support of the public health emergency response above and focuses on “improving individual and community disaster preparedness; increasing individual and community resilience; decreasing disaster-related distress and maladaptive behavior; promoting wellness, coping, and recovery; helping a community to make sense of what happened; and (re)connecting the community” (Houston, 2012; Houston et al., 2015, p. 3).

## The “accusatory” approach to crisis communication

Under the label political or accusatory approach, we include all those studies that focus mainly on strategies that can protect an organization's reputation, or a political executive's power base, policy or performance legitimacy during a crisis (Avery et al., 2010; Benoit, 1997; Claeys et al., 2010; Coombs, 1995, 2010, 2021; Coombs & Holladay, 2009, 2014). The threat here is reputational, the object of the threat is the organization or the executive, and though such organizations and executives can anticipate threats



or crises, the risks they run are volatile and nearly impossible to estimate. The two perspectives on crisis communication therefore deal with risk in different ways. They both relate to high-impact, low-probability risks materializing, but the assistory perspective directly pertains to communication about a risk and threat that affects others, while the accusatory perspective predominantly pertains to the risk to self, defined as reputation threat, even if it can be indirectly in response to a tangible risk or threat to others (as a result of product failure, regulatory omission, security breach).

The business management and public affairs literature in particular, embraces a political-strategic perspective on crisis communication, demonstrated by the top results of our bibliometric analysis pertaining to journals such as *Public Relations Review*, *Corporate Communications* and *Corporate Reputation Review*. Scholars here tend to see crises as reputation loss and legitimacy threats, and in those cases, communication mainly serves to mitigate the loss of appreciation for the organization's service, authority, trustworthiness, brand, or products. Strategic communication during a crisis can be both politically charged and operationally responsive to the needs of the affected, ranging from consumers to shareholders, citizens, and employees. In fact, brands and businesses communicating in a crisis will do well to avoid crisis denial; instead, they may benefit from showing empathy, embrace some form of responsibility, brush up their image, and offer symbolic or material compensation.

This literature, which gained prominence in the 1990s, shows an interesting shift in its explanatory focus and academic audience. Fathered by William Benoit's article in 1997, crisis communication initially focused on strategies to repair an organization's image. Later, Benoit renamed his Image Repair Theory to Image Restoration Theory, to reflect the fact that a damaged image might be improved but not completely restored (Benoit, 2015). Despite the name of his theory, the emphasis rested on the blameworthy event, a negative surprise to an organization that would require a reactive response to restore its prior reputation (Benoit, 1997, 2007, 2015, 2018, 2021). Several strategies are available for the crisis communication response, ranging from simple denial to full-fledged apology. Benoit (1997) offers suggestions for their most effective use ("don't lie") and recommendations for what organizations can do in anticipation of possible reputation threats (Arendt et al., 2017; Benoit, 2007, 2015, 2021; Frandsen & Johansen, 2017).

Building further on Benoit's strategies, Timothy Coombs and colleagues both broadened the focus and added explanatory power to the crisis communication approach. Their Situational Crisis Communication Theory (SCCT) centers around responsibility attribution. Coombs (2007, cf. Coombs & Holladay, 2002, 2015) argues that, when an organization is accused of being at fault, the attribution of responsibility for its wrongdoings is dependent on the context. The SCCT discerns three clusters of responsibility attribution. Whether the organization is seen as a casualty (the victim cluster), as a causal agent (the accidental cluster), or as an intentional culprit (the intentional cluster), depends on its prior relationship with key stakeholders and its record of previous crises. Customers and stakeholders will look back in time and take into account whether the organization has a stellar reputation of stakeholder treatment, as well as whether similar incidents or crises in the past indicate that the organization is a "repeat offender." If stakeholders are already discontent, or if the organization has experienced similar crises in the past, the attribution of responsibility is generally much harsher. In such cases, the reputation threat escalates: the organization, initially seen as a casualty or an unintentional causal agent, instead is accused of intentionality and culpability.

The appropriate strategies, similar to those of Benoit's work, must be in line with the attribution of responsibility given the crisis context. The more attribution of responsibility and intentionality, the more an organization must reach out, embrace its faults, and apologize or compensate for any resulting harm to effectively repair the organization's reputation. One of the great contributions of SCCT to the field of research was that it enabled a comparative and even large-N study of crisis responses, and the subsequent research findings demonstrated the explanatory leverage of SCCT. Following up on early theoretical claims, Coombs and Holladay (2005, 2007, 2008) and others (Choi & Lin, 2009; Claeys et al., 2010; Lee, 2004) put these ideas empirically to the test with an increased focus on the effects of communication strategies on reputation damage and the reception of crisis communication by stakeholders and audiences.

The work of Seeger et al. (2003; cf. Seeger, 2006) also takes Benoit as a point of departure, but proceeds in a different direction. Their emphasis is prescriptive rather than explanatory, and holds that the organization in crisis needs to do more than restore the reputation it had prior. While reputation and trust remain a core concern, organizations can use crises to seize the opportunity for organizational renewal.

## Division and dialog: What the bibliometric analysis tells us

The results of our bibliometric analysis indeed reflected a division in approaches to crisis communication. The first cluster represents a citation network of assistory studies. These studies focus on communication aimed at providing aid, information, or support to those citizens and communities harmed by the materialization of a risk they did not produce themselves. These studies focus on the provision of practical information, its carriers (such as social media), and their coverage in crisis and disaster communication. Top-15 words in the blue assistory cluster include: (social) media, risk, information, news, credibility, behavior, and an emphasis on disaster (see Table 1). Social media plays a big part as a topic of research in this realm in recent years, perhaps both due to its increasing role as a tool in crisis communication but also because of the ongoing advancements and accessibility of data collection.

The other two clusters identified are about the senders and receivers/outcomes of crisis communication, respectively, seen from the accusatory approach. The red cluster (senders) pertains to the management of crises through communication in terms of framing, performance, and image restoration strategies. The green cluster (receivers/outcomes) pertains to impact, perceptions, emotions, and trust at the other end of the chain of crisis communication (see top-15 words in Table 1 for the red and green clusters).

The cocitation network (see Appendix B) provides a plausible indication of the extent of dialog between thematic clusters. The work by Coombs et al. appears in each of the clusters (though least in the blue cluster of the cocitation analysis), indicating its bridging nature in the field. Dialog on some level is natural within the field of crisis research, and more generic insights can be useful for all branches. For instance, disaster research, while often focused on relief efforts, also includes a more political dimension, as disasters often expose vulnerabilities and safety breaches, for which government executives must be held responsible (Boin et al., 2006). As such, disaster research also takes to heart corporate communication advice on meaning making, and legitimization of the crisis response through strategic framing. It describes the role of public executives to legitimize their actions and authority, as they must channel emotions (despair, rage, unrest), show empathy, demonstrate firmness and

responsiveness, and reach out to their constituencies for support. The utility of generic insights such as these would explain the prominent role of Coombs' (2021) book on planning, managing, and responding in a crisis communication context.

COVID-19 responses by health institutes and national governments teach us that precrisis authority, trust, reputation, and stakeholder relations are closely related to audience receptivity, compliance, legitimacy, the impact of information provision, and the outcome of crisis communication during crisis. Literature on COVID-19 crisis communication formed a separate topic in our topic modeling results (see Appendix C). The other topics may be related to either the assistory/blue cluster (topics 1, 4, 5, and 9 on social media, risk, disaster information, and media frames, respectively), the red, accusatory/senders cluster (topics 3, 6, and 10 covering image repair, corporate reputation, and political strategies, respectively) and the green, accusatory/impact cluster (topics 2 and 8, relating to public reactions and relations) of the thematic cluster analysis (see Appendix C for topic modeling results and explanations). Recent studies on the uptake of vaccination campaigns, compliance to lockdowns, the combatting of disinformation, and the discussion on the origin of the COVID-19 virus benefited from insights from all three thematic clusters that appeared in our bibliometric review. This alignment is expected, as crisis communication scholars must consider both the senders (repair strategies, reputation interests, and blame avoidance) and receivers (audiences, what makes them receptive to information, what tools and platforms they use, etc.) in the two-way process of crisis communication.

## DISCUSSION AND CONCLUSIONS

The purpose of this bibliometric review was to provide an overview of how the studies on crisis communication cluster and differ in terms of topic content. In the assistory approach, the clustering suggests that research in this area is highly influenced by trends and new developments. Some of the most frequently cited articles that relate thematically to this cluster are Austin et al. (2012), Jin et al. (2014), and Utz et al. (2013) research on the role of social media as a tool for crisis communication, which gained prominence shortly after the widespread adoption of platforms like Twitter (or now X) and Facebook among the general public. In some cases, the widespread adoption and use of such tools outpaced both the government's use and message content. For instance, Wukich (2019) showed that while agencies increasingly instruct their audiences through social media on how to prepare for emergencies, their strategies generally anticipate and include little to no interaction with the public in line with traditional government-to-citizen, one-to-many communication modes. In the future, we may expect a surge in studies focusing on the role of artificial intelligence and its application in crisis communication, along with efforts to debunk disinformation and rumors.

Similarly, we anticipate that new studies will continue to address evolving trends. In the aftermath of the COVID-19 pandemic, we expect to see increased research on instructive communication aimed at influencing behavior and promoting compliance with necessary measures. In our editorial review on "Pandemic publishing" (Kuipers et al., 2022), we saw that "crisis communication" as a theme gained a strong internal coherence or high density (studies share many keywords within the theme). The main subthemes were a new focus on the vulnerability and resilience of specific minorities and communities, the influence of crisis communication on citizen behavior, and the relation between crisis communication and business or economic performance. All these subthemes have a strong functional or assistory connotation.

When considering the “accusatory” cluster, it is worth noting that this field appears to be less influenced by trends compared to the “assistory” cluster. Studies in the “accusatory” cluster remain rooted in early theoretical foundations from the 1990s and early 2000s. The pioneering work of theorists such as William Benoit and Timothy Coombs has laid the groundwork for crisis response strategies still in use today. However, scholars have pointed out that these theories exhibit a significant Western bias (Arendt et al., 2017; Diers-Lawson, 2017, 2020; Waymer & Heath, 2007). A similar Western-centric perspective is observed in studies concerning the use of crisis communication in the context of public leadership, primarily relying on American case studies (Jong et al., 2016). Additionally, research conducted among diverse ethnic communities following the 9/11 events revealed that participants in Mandarin-speaking focus groups prioritized the collective well-being over individual interests (Johnson et al., 2017). This carries implications for the choice and application of current crisis communication strategies, particularly in addressing the diverse interests and expectations of groups that may not align with a Western approach to crisis communication. Hence, it is crucial to conduct a thorough and critical examination of the theories and concepts that have been employed in this field over the past 20 years.

While crisis response strategies may not necessarily need to adhere to fleeting trends, we echo Coombs (2020) that it is now imperative for crisis communication research to expand crisis communication theory. A critical update is urgently warranted to ensure the applicability of strategies beyond the countries, media platforms, and audience orientations that have predominantly shaped the existing research landscape. In RHCPP, we welcome such contributions to crisis communication research. Moreover, we would like to draw attention to contributions that bridge the different clusters as discussed in our review, that connect sender and receiver, and bring together the assistory and accusatory approaches. As crises and disasters continue to shape the headlines of our daily news, the need for competent crisis communication is inescapable. While leaders can make a big difference with a well-chosen communication strategy in the midst of a crisis, now may be time to move beyond the managerial focus that dominates the field to be able to tackle the creeping and transboundary nature (Boin et al., 2020) of crises that slowly unfold in front of our eyes.

## ENDNOTES

- <sup>1</sup> Based on the data summary and the historical direct citation network.
- <sup>2</sup> Based on the data summary and the country collaboration network (see Appendix A).
- <sup>3</sup> Based on the data summary and the keyword co-occurrence network.
- <sup>4</sup> Our first attempt to visualize keyword occurrences and identify clusters resulted in an outcome heavily influenced by Covid-19 research which produced a separate health/covid cluster as a consequence. A next step excluding articles from 2020 onwards resulted in four clusters that were no longer Covid-oriented but ambiguous with regard to the core theme per cluster and partly overlapping. The final attempt resulted in the following three clusters, that nicely demonstrate dominant orientations in crisis communication research. This division, while perhaps not perfectly clearcut, is nevertheless clearer than the previous four-cluster model (earlier attempts available upon request). One cluster (blue) demonstrates a clear functional/assistory approach and combines risk, crisis and disaster communication with social media, one cluster (red) focuses on the accusatory or political-strategic approach to crisis communication and one cluster (green) about impact and perception of such public relations strategies.

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## APPENDIX A: BIBLIOMETRIX OUTPUT

### Base output

#### Main information about data

Timespan	1980: 2023
Sources (journals, books, etc)	568
Documents	1899
Annual growth rate %	14.62
Document average age	5.67
Average citations per doc	19.57
Average citations per year per doc	2.721
References	60,226

#### Document types

Article	1709
Article; early access	43
Article; proceedings paper	25
Book review	29
Correction	1
Editorial material	46
Letter	1
Meeting abstract	6
Review	38
Review; early access	1

#### Document contents

Keywords plus (ID)	1935
Author's keywords (DE)	4120

#### Authors

Authors	3273
Author appearances	4892
Authors of single-authored docs	357

#### Authors collaboration

Single-authored docs	442
Documents per author	0.58
Coauthors per doc	2.58
International coauthorships %	18.01
Annual percentage growth rate	9.989785

<b>Articles by years</b>	
<b>Year</b>	<b>Articles</b>
1980	1
1991	1
1994	1
1995	1
1997	1
1998	4
1999	2
2000	1
2001	2
2002	6
2003	6
2004	7
2005	10
2006	13
2007	25
2008	28
2009	50
2010	41
2011	42
2012	64
2013	71
2014	78
2015	84
2016	122
2017	109
2018	153
2019	139
2020	194
2021	267
2022	316

### Most prolific authors

	Authors	Articles	Authors	Articles fractionalized
1	Liu B.	44	Liu B.	16.88
2	Jin Y.	32	Coombs W.	15.75
3	Spence P.	30	Veil S.	13.28
4	Lachlan K.	29	Jin Y.	12.76
5	Veil S.	28	Kim S.	12.17
6	Claeys A.	26	Claeys A.	10.92
7	Coombs W.	26	Spence P.	9.28
8	Kim S.	26	Lachlan K.	8.62
9	Sellnow T.	21	Kim Y.	7.92
10	Pang A.	18	Kim J.	7.42

### Most cited manuscripts

	Paper	DOI	TC	TC per year	NTC
1	Coombs W., 2007, Corp Reput Rev	10.1057/palgrave.crr.1550049	1095	64.4	11.60
2	Benoit W. L., 1997, Public Relat Rev	10.1016/S0363-8111(97)90023-0	590	21.9	1.00
3	Seeger M. W., 2006, J Appl Commun Res	10.1080/00909880600769944	433	24.1	6.41
4	Schultz F., 2011, Public Relat Rev	10.1016/j.pubrev.2010.12.001	424	32.6	8.10
5	Houston J. B., 2015, Disasters	10.1111/disa.12092	388	43.1	10.93
6	Veil S. R., 2011, J Cont Crisis Manag	10.1111/j.1468-5973.2011.00639.x	337	25.9	6.44
7	Westerman D., 2014, J Comput-Mediat Commun	10.1111/jcc4.12041	327	32.7	10.07
8	Austin L., 2012, J Appl Commun Res	10.1080/00909882.2012.654498	314	26.2	10.01
9	Vanhamme J., 2009, J Bus Ethics	10.1007/s10551-008-9731-2	305	20.3	8.49
10	Kim S. J., 2020 Health Educ Behav	10.1177/1090198120929677	288	72.0	18.44

**Most cited countries**

	Country	Total citations	Average article citations
1	USA	21,297	26.16
2	China	2221	15.01
3	The Netherlands	2044	39.31
4	United Kingdom	1395	17.88
5	Australia	964	16.07
6	Belgium	934	24.58
7	Germany	900	12.86
8	Korea	876	16.85
9	Sweden	784	12.44
10	Canada	730	14.90

**Journals with the most articles**

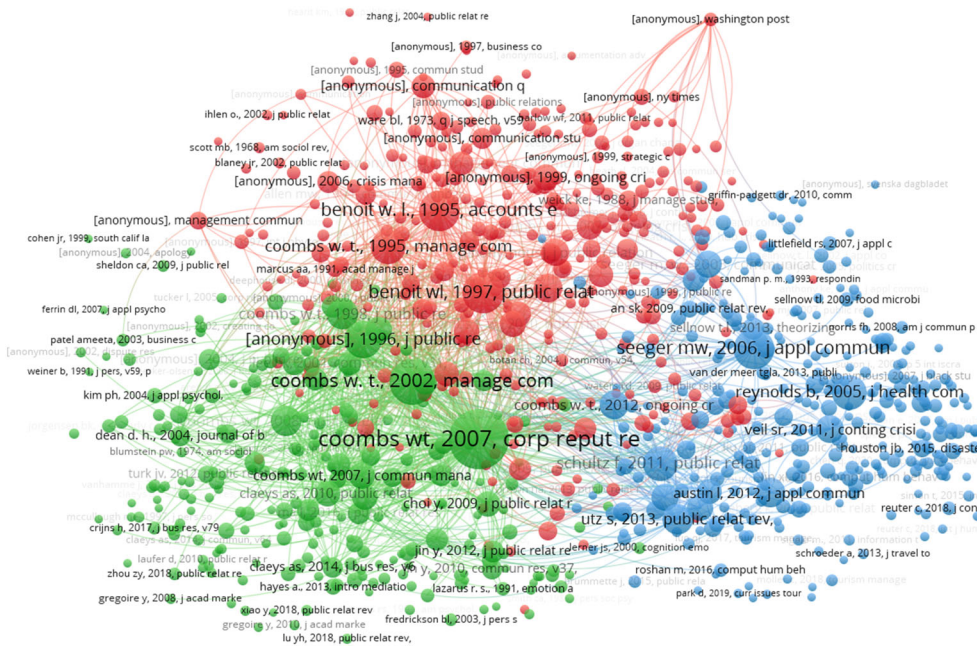
	Sources	Articles
1	Public Relations Review	271
2	Journal of Contingencies and Crisis Management	77
3	Corporate Communications	65
4	Journal of Communication Management	51
5	Journal of Public Relations Research	48
6	Journal of Applied Communication Research	37
7	International Journal of Business Communication	32
8	Computers in Human Behavior	27
9	Journal of Risk Research	23
10	Corporate Reputation Review	22





# APPENDIX B: COCITATION NETWORKS IN BIBLIOMETRIC ANALYSIS (VOS-VIEWER)

See Figure B1.



**FIGURE B1** Cocitation network.

**Top 10 manuscripts by cluster (excl. [anonymous])**

Red cluster

Benoit, W. L. (1997). Image repair discourse and crisis communication. *Public Relations Review*, 23(2), 177–186.

Benoit, W. L. (1995). Accounts, excuses, and apologies: A theory of image restoration strategies. (*No Title*).

Coombs, W. T. (1995). Choosing the right words: The development of guidelines for the selection of the “appropriate” crisis-response strategies. *Management Communication Quarterly*, 8(4), 447–476.

Coombs, W. T. (2010). Parameters for crisis communication. *The Handbook of Crisis Communication*, 17–53.

Sturges, D. L. (1994). Communicating through crisis: A strategy for organizational survival. *Management Communication Quarterly*, 7(3), 297–316.

Coombs, W. T. (2021). *Ongoing crisis communication: Planning, managing, and responding*. Sage Publications.

Avery, E. J., Lariscy, R. W., Kim, S., & Hocke, T. (2010). A quantitative review of crisis communication research in public relations from 1991 to 2009. *Public Relations Review*, 36(2), 190–192.

Coombs, W. T., & Holladay, S. J. (2009). Further explorations of postcrisis communication: Effects of media and response strategies on perceptions and intentions. *Public Relations Review*, 35(1), 1–6.

Coombs, W. T., & Holladay, S. J. (2014). How publics react to crisis communication efforts: Comparing crisis response reactions across sub-arenas. *Journal of Communication Management*, 18(1), 40–57.

(Continues)

**Top 10 manuscripts by cluster (excl. [anonymus])**

Aboudzadeh, N., Shoshtari, A., & Hashemnia, S. (2014). Crisis management: Planning for the inevitable. *Management Science Letters*, 4(6), 1191–1196.

**Green cluster**

- Coombs, W. T. (2007). Protecting organization reputations during a crisis: The development and application of situational crisis communication theory. *Corporate Reputation Review*, 10, 163–176.
- Coombs, W. T., & Holladay, S. J. (2002). Helping crisis managers protect reputational assets: Initial tests of the situational crisis communication theory. *Management Communication Quarterly*, 16(2), 165–186.
- Coombs, W. T. (1998). An analytic framework for crisis situations: Better responses from a better understanding of the situation. *Journal of Public Relations Research*, 10(3), 177–191.
- Coombs, W. T., & Holladay, S. J. (2008). Comparing apology to equivalent crisis response strategies: Clarifying apology's role and value in crisis communication. *Public Relations Review*, 34(3), 252–257.
- Coombs, W. T. (2006). The protective powers of crisis response strategies: Managing reputational assets during a crisis. *Journal of Promotion Management*, 12(3–4), 241–260.
- Coombs, W. T., & Holladay, S. J. (2007). The negative communication dynamic: Exploring the impact of stakeholder affect on behavioral intentions. *Journal of Communication Management*, 11(4), 300–312.
- Claeys, A. S., Cauberghe, V., & Vyncke, P. (2010). Restoring reputations in times of crisis: An experimental study of the Situational Crisis Communication Theory and the moderating effects of locus of control. *Public Relations Review*, 36(3), 256–262.
- Coombs, W. T., & Holladay, S. J. (2005). An exploratory study of stakeholder emotions: Affect and crises. In *The effect of affect in organizational settings* (Vol. 1, pp. 263–280). Emerald Group Publishing Limited.
- Choi, Y., & Lin, Y. H. (2009). Consumer responses to Mattel product recalls posted on online bulletin boards: Exploring two types of emotion. *Journal of Public Relations Research*, 21(2), 198–207.
- Lee, B. K. (2004). Audience-oriented approach to crisis communication: A study of Hong Kong consumers' evaluation of an organizational crisis. *Communication Research*, 31(5), 600–618.

**Blue cluster**

- Seeger, M. W. (2006). Best practices in crisis communication: An expert panel process. *Journal of Applied Communication Research*, 34(3), 232–244.
- Reynolds, B., & Seeger, M. W. (2005). Crisis and emergency risk communication as an integrative model. *Journal of Health Communication*, 10(1), 43–55.
- Schultz, F., Utz, S., & Göritz, A. (2011). Is the medium the message? Perceptions of and reactions to crisis communication via twitter, blogs and traditional media. *Public Relations Review*, 37(1), 20–27.
- Utz, S., Schultz, F., & Glocka, S. (2013). Crisis communication online: How medium, crisis type and emotions affected public reactions in the Fukushima Daiichi nuclear disaster. *Public Relations Review*, 39(1), 40–46.
- Austin, L., Fisher Liu, B., & Jin, Y. (2012). How audiences seek out crisis information: Exploring the social-mediated crisis communication model. *Journal of Applied Communication Research*, 40(2), 188–207.
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- Jin, Y., Liu, B. F., & Austin, L. L. (2014). Examining the role of social media in effective crisis management: The effects of crisis origin, information form, and source on publics' crisis responses. *Communication Research*, 41(1), 74–94.
- Seeger, M. W., Sellnow, T. L., & Ulmer, R. R. (2003). *Communication and organizational crisis*. Greenwood Publishing Group.
- Fischer Liu, B., Austin, L., & Jin, Y. (2011). How publics respond to crisis communication strategies: The interplay of information form and source. *Public Relations Review*, 37(4), 345–353.

## APPENDIX C: TOPIC MODELING RESULTS

**HIGHEST PROB:** Words with the highest likelihood of belonging to the topic in question according to the model.

**FREX:** Combines highest prob with a measure of exclusivity, that is, words that are high in likelihood AND unique to the topic are included. For more information, see Bischof and Airoldi (2012).

**LIFT:** Words with a higher likelihood of occurrence within the topic than outside of it. For more information, see Taddy (2012).

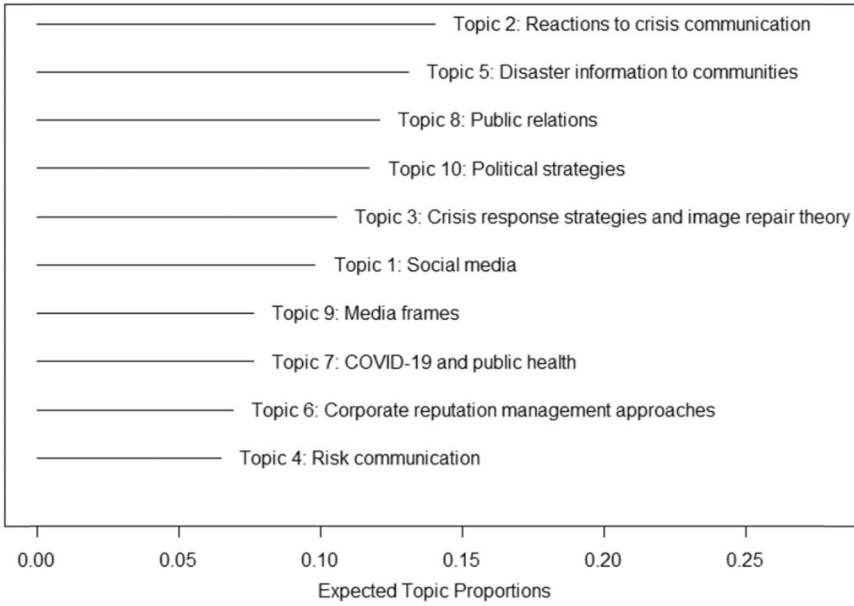
**SCORE:** Combines multiple metrics to rank words based on their relevance to the topic. Takes into account highest prob, lift, and additional metrics. For more information, see Chang (2012).

Topic no.	Top words	Label
1	<p>Highest Prob: media, social, use, twitter, inform, engag, public, post, studi, sourc</p> <p>FREX: social, media, twitter, engag, use, sourc, post, network, share, collect</p> <p>Lift: social, twitter, media, engag, sourc, network, post, share, use, collect</p> <p>Score: social, media, twitter, use, sourc, network, engag, inform, post, share</p>	Social media
2	<p>Highest Prob: effect, studi, emot, negat, posit, result, perceiv, intent, percept, affect</p> <p>FREX: emot, negat, intent, posit, perceiv, effect, toward, affect, type, percept</p> <p>Lift: emot, intent, mediat, toward, negat, perceiv, posit, test, type, behavior</p> <p>Score: emot, intent, negat, perceiv, effect, percept, organiz, mediat, reput, posit</p>	Reactions to crisis communication
3	<p>Highest Prob: strategi, respons, studi, use, theori, imag, reput, examin, case, situat</p> <p>FREX: strategi, respons, imag, theori, reput, case, situat, examin, employ, use</p> <p>Lift: imag, strategi, respons, employ, case, theori, reput, action, term, situat</p> <p>Score: imag, strategi, respons, reput, theori, case, use, studi, situat, action</p>	Crisis response strategies and image repair theory
4	<p>Highest Prob: risk, messag, communic, group, percept, decis, effect, action, may, particip</p> <p>FREX: risk, group, messag, decis, percept, action, communic, particip, make, control</p> <p>Lift: risk, group, messag, decis, action, control, measur, percept, assess, communic</p> <p>Score: risk, messag, percept, group, decis, communic, measur, action, behavior, particip</p>	Risk communication
5	<p>Highest Prob: inform, disast, emerg, event, communiti, manag, need, use, includ, provid</p> <p>FREX: disast, emerg, inform, communiti, event, need, natur, includ, challeng, interview</p> <p>Lift: disast, natur, emerg, communiti, event, inform, interview, plan, knowledg, need</p>	Disaster information to communities

(Continues)

Topic no.	Top words	Label
	Score: disast, emerg, inform, communiti, event, plan, natur, need, interview, manag	
6	Highest Prob: compani, corpor, purpos, valu, studi, origin, find, implic, approach, stakehold FREX: compani, corpor, valu, purpos, origin, implic, approach, stakehold, find, reput Lift: compani, corpor, origin, valu, purpos, limit, implic, stakehold, approach, reput Score: compani, corpor, reput, purpos, valu, origin, approach, stakehold, implic, limit	Corporate reputation management approaches
7	Highest Prob: covid, health, pandem, public, inform, trust, use, relat, measur, prevent FREX: covid, health, pandem, trust, public, prevent, measur, chang, associ, inform Lift: health, covid, pandem, prevent, measur, trust, chang, associ, public, across Score: health, covid, pandem, public, trust, inform, prevent, measur, govern, behavior	COVID-19 and public health
8	Highest Prob: organ, public, manag, relat, organiz, crise, c, right, relationship, reserv FREX: organ, c, organiz, right, reserv, relat, manag, inc, relationship, public Lift: inc, reserv, c, right, organ, practition, organiz, relationship, relat, manag Score: inc, organ, c, reserv, right, public, organiz, manag, relat, relationship	Public relations
9	Highest Prob: analysi, news, frame, content, studi, report, nation, onlin, differ, use FREX: news, frame, content, analysi, report, nation, onlin, analyz, differ, follow Lift: frame, news, content, report, nation, analysi, onlin, analyz, regard, compar Score: frame, news, content, analysi, report, nation, onlin, messag, media, analyz	Media frames
10	Highest Prob: govern, intern, studi, polit, approach, context, manag, author, role, analysi FREX: intern, govern, polit, context, author, role, framework, strateg, three, structur Lift: polit, govern, intern, author, context, structur, main, strateg, order, framework Score: polit, govern, intern, author, context, strateg, approach, structur, manag, role	Political strategies

### Top Topics



## AUTHOR BIOGRAPHIES



**Sanneke Kuipers**, Full Professor in Crisis Governance, combines crisis management scholarship with practical experience as a consultant. She publishes on crisis management, institutionalization, organizational survival, and crisis accountability in international scholarly journals and books. Sanneke has extensive experience as senior advisor at Crisisplan BV in crisis research, evaluation, training and teaching projects, advising national ministries, safety regions and executive agencies. Current research projects include projects on crisis management, governing polarized societies, institutionalization of public organizations, blaming and accountability after crises and organizational reform and survival. Sanneke Kuipers is editor in chief of *Risk, Hazards and Crisis in Public Policy*.



**Sara Perlstein** is a PhD candidate at the Institute of Security and Global Affairs under the research groups "Crisis Governance" and "Physical Violence and Public Order." Her research focuses on risk perception in relation to pandemics and terrorism, respectively.



**Jeroen Wolbers** is Associate Professor of Crisis Governance and Director of Education at the Institute for Security and Global Affairs, Leiden University. His expertise lies in fast-response organizing of coordination, sensemaking, and decision making, with a special focus on crisis management. His work is published in leading organization science and crisis management journals. In his PhD thesis Jeroen studied coordination processes between emergency services on disaster sites. His thesis was selected for the top three dissertations worldwide in management science with the Grigor McClelland Award 2017, and he was awarded with the VU Faculty of Social Science Dissertation Award. Jeroen Wolbers is editor in chief of *Risk, Hazards and Crisis in Public Policy*.



**Wouter Jong** earned his PhD at Tilburg University in 2019. In his PhD, he did a research on leadership roles of mayors in times of crisis. He is a crisis management and crisis communication consultant. On behalf of VNG International he is involved in rebuilding projects and disaster management projects at Sint Maarten and the Middle-East. He is a lecturer in Crisis Communication at the Institute of Security and Global Affairs at Leiden University since 2018.