

Kenyan Government Communication in the Sudan Crisis: An Analysis of @ForeignOffice KE Twitter Page

Edith Jelagat Biwott¹, Joel Ngetich²

¹ University of Kabianga, P.O Box 2030 – 20200 Kericho

² University of Kabianga, P.O Box 2030 – 20200 Kericho

ABSTRACT

In times of crisis, such as wars or natural calamities, a government's communication strategy is an important asset as it reassures the citizens and builds resilience. This paper explored how the Government of Kenya (GoK) through the Ministry of Foreign Affairs (MOFA), used Twitter as a method of engagement to engage citizens during the Sudan crisis inside of the crisis communication setting. The study sought to establish key issues raised during the crisis, the nature of communication between key crisis publics, the tone used, and the dilemmas experienced by key publics during the interaction. The interactions are confined to only those on the @ForeignOfficeKe Twitter page since the beginning of the Sudan crisis on 15th April for two weeks. Government officials, Crisis publics (Sudan Crisis), and MOFA were the focus of the study. The study used quantitative content analysis to examine how citizens and authorities interacted during the Sudan crisis. All the 18 Twitter messages and the 112 comments made during the study period were picked for analysis. Situational crisis communication theory was used to provide direction. The analysis found that the government's primary message focused on the spread of information about the authorities and their actions, the sequence of events leading to the crisis, and directions of what those caught in the crisis should do and rescue plans. The overall crisis public's tone was negative with most of the messages being criticism of the government and its actions. The study further established that active two-way participation between authorities and the crisis public was lacking. As the talks were taking place, the active crisis public provided information, asked and answered questions, and voiced their thoughts. The paper also brought out bottlenecks that are likely to frustrate effective and efficient communication during the crisis. These include rigidity of government authorities in terms of taking timely and appropriate measures, providing quality information, and disparity of knowledge. This study has shown that crisis publics are a resource that can be used by the government to identify the information needs of the public. This, therefore, calls for the government to establish two-way communication on their social media pages to ensure that the crisis public needs are met.

Keywords: Crisis, communication, crisis publics, Kenya

Copyright © 2024 The Author(s): This is an open-access article distributed under the terms of the Creative Commons **Attribution 4.0 International License (CC BY-NC 4.0)** which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

1. INTRODUCTION

Conflict erupted in Sudan on 15th April 2023. As the fighting escalated, Kenyans in Sudan were looking to get timely information. Communication is a necessary process of coordination of crisis logistics; in light of the Sudan crisis, those organizing the evacuation logistics needed to clearly and consistently communicate with those caught up in the conflict.

Communication is a key element in any crisis. When a conflict occurs, individuals need timely and consistent information to make informed decisions amidst the chaos to ensure their safety. There are many ways in which communication can be affected. The traditional means including print and broadcast media have been used in various crises. However, with the advent of technology, the social media platform has presented new and varied opportunities in crisis communication.

Social networking has provided avenues for easy exchange of information between citizens. At the tap of a mobile phone or computer, community members may communicate with one another. Social media thus offers real-time opportunities for communication engagement, which is one of the essential elements in dealing with crises. Brunette and Fussell (2015) argue that the public prefers to look for information on Facebook because it is timely, compared to other forms of media. In this sense, it agrees with Utz et al., (2013) who argued that the use of Social Media in times of crisis could

give rise to dialogue and inform citizens more rapidly and effectively.

In the context of crisis communication, McCorkindale and DiStaso (2013) argue that social media platforms are important because they act as a space where crises can be discussed publicly. This is in agreement with Coombs and Holladay's (2014) assertion that "Social media allow more actors to become 'involved' in the crisis as crisis communicators." Because social media provides a current and unrestricted line of communication, most citizens seek to use it during a crisis (Procopio & Procopio, 2007).

The Kenya Government has recognized the vital role that Social Media sites play in their engagement with citizens and is therefore making use of them to disseminate information. For example, Facebook and Twitter pages are used by the Ministry of Foreign Affairs and Diasporas to communicate information. Austin, Liu, and Jin (2012) argued that Twitter and Facebook are always getting the most attention among social media tools. Limited research has been carried out on the use of Social Media for crisis resolution by emerging countries, Kenya included.

The use of social media by the Kenya Government as a tool for reaching its citizens in times of crisis should thus be explored. This paper specifically examines how the government used its foreign and diaspora affairs Twitter handle to convey information related to the Sudan crises in

April 2023. The response of the public to the messages communicated during the crisis has also been examined, as well as the reactions of those affected directly or indirectly by the crisis. Effective communication during crises can be achieved when the government and citizens are actively involved. It is precisely for this reason that citizens have a right to express their concerns and, take part in discussions. The government, on its part, is in a position to provide relevant and timely information, make clarifications where need be and address the concerns of citizens.

This paper seeks to find out how the government through its mouthpiece, the Ministry of Foreign and diaspora affairs' Twitter page engaged with the crisis public (those affected and those interested in the crisis) in the context of crisis communication. It analyses the information disseminated by the government in the wake of the crises, such as the casualties, people affected, the actions to be taken by those affected, what the government was doing to deal with the crises, and how the government was engaging with the crisis public on the page.

Objectives

- i. To find out the nature of information regarding the Sudan crisis that was disseminated by the government through their @ForeignOfficeKe page.
- ii. To establish the nature of engagement evident on the @ForeignOfficeKe page regarding the Sudan crisis.
- iii. To find out the tone portrayed by crisis publics in their engagements

2. LITERATURE REVIEW

2.1 Crisis Communication

There is currently a rise in empirical study on risk and crisis communication across a wide range of contemporary and pertinent issues, which encompasses "infectious diseases, public health interventions, disasters, terrorism, environmental issues, and misdeeds by organizations and their leaders" (Liu, 2019, p. 8). Although the breadth of crisis communication has expanded its spectrum, there are still limitations to its use in the social media era. As a result, in the new media dispensation and as the world's technological order advances (Castells, 2013), responsive participation of authorities and individuals can aid in effective crisis communication.

Furthermore, during pandemics or epidemics, the internet enables citizens to use social media to seek and share crisis information (Lee & Jin, 2019). Previous research has found that due to the timely nature of communication messages and user posts, the public is more likely to seek information via social media rather than conventional media (Brummette & Fussell, 2015; Utz et al., 2013).

The public has become the crucial player who desires to be active, usually during a period of emergency, as well as a platform for citizens to question authorities' decisions (Palttala & Vos, 60 ANSAH 2011). This is owing to the timeliness and convenience of access to user comments. Previous researchers stated that social media expands organizations' and governments' informational capacity to inform and educate the public during a crisis. As a result, authorities should frequently monitor social media to help in communication during crisis (Lin et al., 2016).

The basic purpose of public institutions is to serve humanity or the public (Bowden et al., 2016), which is also the main

purpose of crisis communication. Researchers Stewart and Wilson (2015) encouraged authorities to "consider the need for organizations to monitor and respond to contemporary communication processes, and to develop communication strategies. social media?? and a crisis management plan in the event of a crisis" (p. 639).

Crisis communication also involves talking about hazards, recovering, and learning from disasters (Palttala & Vos, 2011). It is important to identify citizens as actors in crisis communication involving different subgroups with different needs. This is crucial since it will help interactants comprehend the crisis messages. A crisis affects the actors in various ways for example, physically, socially, and emotionally just to mention but a few therefore, authorities should exercise caution when performing their crisis communication functions.

2.2 social media, Crisis Communication, and Citizen Engagement Tool.

The specific relationship between the people and the government is a prerequisite for understanding the wishes, views, and expectations of the public, enabling fruitful engagement on social networks in the present time (Bowden et al., 2016). crisis period. Public opinion is solicited regarding interactive social media portfolios. (Diehl et al., 2016).

Authorities should monitor people's comments on social media to be aware of their organization's image in this public space (Coombs & Holladay, 2014). In a study of citizens' attitudes towards Facebook during various crises in New Zealand and Australia in 2011, Taylor et al., (2012) found that citizens use social media for a variety of reasons. The results showed that some of the audience comments described events, asked and answered questions, provided information, and helped others find more facts. This is corroborated by Mollema et al. (2015) who conducted a study of measles outbreaks in the Netherlands on various social media platforms. Their findings revealed that such platforms were used to get information on key themes which included information on outbreak, risk of infection or death assumptions, beliefs, and roles of organizations.

Besides Facebook, Twitter has proven to be one of the most widely used social media platforms as a crisis framework for online communication during disasters. A previous study looked at Twitter usage during the early days of Hurricane Sandy in October 2012. The results suggest that Twitter is a source of information about the crisis (Lachlan et al., 2014). Research seems to agree that during a crisis, the public uses Twitter to describe events by relaying official news and sharing it.

Browns et al., (2012) further explored the use of Twitter during the floods in South East Queensland in 2011 when the public retweeted information with the hashtag #qldfloods, increasing the reach of the crisis message. Therefore, there is strong consistent evidence that the public is using social media during the crisis to discuss the course of events (Austin et al., 2012).

Some researchers have posited that sometimes online users may attribute an issue either as positive or negative (Miller & Kendall, 2018); so, there's a balance in the public's feelings or the tone of the comments. Kang et al. (2019) reviewed tweets about the Samsung Galaxy Note 7 explosion disaster in Australia, South Korea, and the United States. The results show that a negative tone prevails in tweets about the crisis

(Kang et al., 2019). To support Kang et al., Atlani-Duault et al. (2015) explored audience discussions in the comments section of websites and TV channels in France and found victimization from the crisis public. Thus, the way a given piece of information is received determines the way the actors in a crisis react towards authorities.

According to the Kenya Media Context Report 2022, most Kenyans use social media as a source of information and consider its impact both positive and negative. The survey further revealed that more Kenyans approve of unrestricted internet and social media access than government-mandated. However, most people expect the authorities to limit the spread of fake news and other misinformation. For this reason, the report concludes that most Kenyans are likely to believe misinformation on social media platforms.

A survey of public opinion about new vaccines on social media showed that most of the comments were positive and negative (Salathé & Khandelwa, 2011). Positive comments are likely to encourage people to get vaccinated, while negative comments can lead to less vaccine absorption thus more people being left unprotected, leading to the possibility of a pandemic outbreak or disease outbreak. Often, the emotions that the public shares on social media influence how the public perceives an issue (Kim et al., 2016). Thus, social media provides a platform for the public to post positive or negative comments supporting (Coombs & Holladay, 2014) or disapproving of the organization's actions in times of crisis (Pang et al. Events, 2014).

Bowden et al. (2016) stated that people's participation in dialogue forums is positive and sometimes negative; therefore, government agencies must regularly monitor and engage in discussions with the public. One drawback of government organizations and health authorities using social media as a crisis management tool is their widespread preference for one-way communication. For example, WHO and CDC focused on one-way communication during the 2009 H1N1 pandemic (Biswas, 2013). On the contrary, Biswas (2013) points out that Facebook enables more interaction thanks to its participatory features.

The Internet, and especially social media platforms, has made it "faster and easier to distribute information on the go, and allowed individuals to stay in touch with many people, communities and more diverse goals." (Theocharis et al., 2015, p.204). This has changed the way users share crisis communications on social media platforms (Miller & Kendall, 2018). Therefore, social networks are an important emergency communication mechanism in various crises (Taylor et al., 2012). Authorities use social media to disseminate information and increase public participation in the development.

2.3 Theoretical Framework

This article has borrowed ideas from Coombs's theory of crisis communication. This theory argues that effective crisis management depends on the strategy adopted, which in turn is influenced by the type of crisis being handled (Coombs, 2014). One can only find an effective strategy when one understands the situation. This theory requires a theoretical link between crises and crisis response strategies and goes on to make recommendations for the use of crisis response strategies (Coombs, 2007, p.173). This study borrows from one of eight crisis response strategies proposed by Coombs, who argued in the chosen strategy "that providing information and adjusting information may be sufficient when minimal

crisis liability (accidental crisis), no history of similar arrests, and reputation for a pre-neutral or positive relationship (p. .173)". The Sudan crisis has little to do with the Kenyan government's attribution thus this strategic choice. This study analyzed how governments communicate during crises. Since they are not directly responsible for crises, they must rely heavily on an information strategy and tailor this information to suit their stakeholders (referred to as the mentioned in this paper as crisis publics).

3. METHOD

Content analysis was used to analyze public information on foreign affairs and diaspora communities on the Kenyan Twitter account. The information selected was limited to those relating to the crisis in Sudan that broke out on April 14, 2023. The analysis phase began on the day war broke out in Sudan on April 14 and was concluded at the end of that month. This study examined communication on social media, (specifically Twitter) between the Kenyan government and citizens during the crisis in Sudan.

Data for the study was selected from the official Twitter page of the Kenya Ministry of Foreign Affairs (MOFA). MOFA is the official voice of the Government of Kenya. According to the Kenya Media Context Report (2022), Twitter has a 34.4% market share of Kenya's social media space. Therefore, this study chose the official MOFA Twitter page to analyze the online discussion between the Kenyan government and its citizens during the Sudan crisis.

The study used quantitative content analysis to explore the relationship between authorities and citizens during the Sudan crisis. The first 2 weeks since Sudan experienced the crisis were chosen as the period for this study because this is the most critical period when there is a lot of anxiety. Twitter posts include the president's address to the nation and ministerial-urgency unit.

4. RESULTS

Crisis communication on social media between Kenyan authorities and citizens came under scrutiny during the Sudan crisis. The content of this study analyzed the main issues addressed on Twitter, the nature of Kenyan citizens' comments, the tone of their comments, the Kenyan government, citizens' discussions on Twitter, and the authority-citizen crisis communication.

From the study, there were 18 tweets and 112 messages engaging on the tweets?? found on the selected page. The tweets were mainly by the page? and retweets on the page from senior government officials including the two Permanent Secretaries and the Cabinet Secretary in the Ministry of Foreign and Diaspora Affairs.

4.1 Nature of Government Communication

According to the study's findings, the government's communications were information-focused. They mainly disseminated information on what was happening in Sudan, what the populace should do, where to find those in need of assistance, evacuations that were carried out, the availability of, and helplines the government's current efforts.63% of the main comments in a total of 18 tweets and 112 retweets discussed government actions. 15% represents discussions on what was happening in Sudan. 9% was about discussion regarding helplines. Comments on what ordinary people could do received 7%.While locating the hot areas and initiating

evacuation measures are responsible for 4% and 2%, respectively.

4.2 Nature of Comments

The character of Kenyan residents' comments during discussions of the Sudan issue was the subject of the second study question. The statements indicated that they wanted to offer knowledge on a variety of topics. On the other hand, some citizens voiced their sentiments in the harshest possible terms due to their displeasure with the course of events and the acts of their leaders. Some criticized the government for its lack of haste and sensitivity.

"Why is the government taking so long?" was a common criticism of the Kenyan government's handling of the issue. Others, however, defended the activities of the government, making comments on social media like "We the good citizens of this country know the government administration is working, so keep on." Some people claimed that the events surrounding the crisis were political.

4.3 Tonicity

Viewers in crisis expressed various attitudes on MOFA's Twitter platform when discussing the crisis in Sudan. Some showed their satisfaction or dissatisfaction with the government's efforts in managing the situation. Most of the comments have a negative tone (59.8%). This shows how dissatisfied people are with the authorities' efforts to deal with the crisis. Some of the negative comments are: "I am sad for this country. We are still waiting for last-minute measures of mitigation."

Positive tone (23.2%) included comments that showed the citizens' satisfaction with regard to how the government handled the crisis or comments that supported the government's efforts, such as: "The good citizens of this country know that the government headed by William Ruto is working. All glory goes to God. God bless our president for his good leadership." Neutral comments (17%) had no positive or negative comments about the government or public officials.

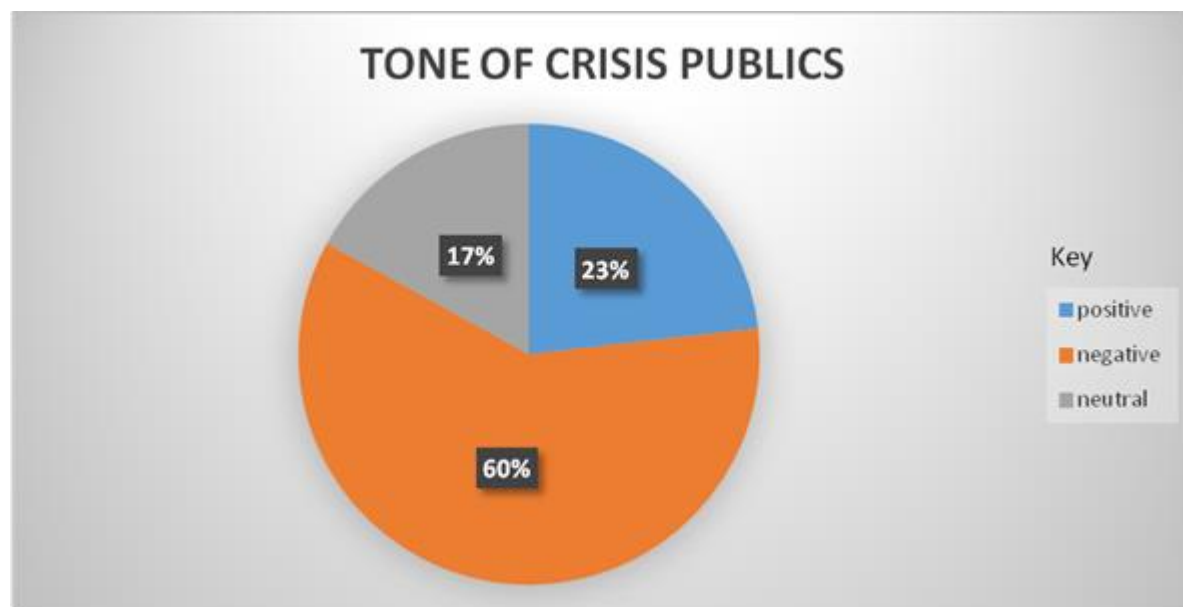


Figure 4.1 shows the percentages of the tone of crisis publics during the Sudan crisis.

4.4 Authorities' Participation in the Discussion

The government of Kenya and its officials have posted limited comments under their Twitter posts by answering residents' questions, providing clarifications, or engaging in discussions. As a result, there is little active engagement on Twitter between the government and the people in the crisis. Moreover, the approach is limited to a two-way communication in the sense that members of the audience answered questions from fellow citizens and regularly participated in discussions.

5. DISCUSSION AND CONCLUSION

This study leverages existing research on crisis communication in the context of government-citizen relationships. It has covered some of the key themes of the crisis in Sudan and the discussions between the government and the people of Kenya. The study also found that MOFA's Twitter posts have an impact on the nature of comments (Kang et al., 2019). Therefore, the next step is to poll public

opinion about the administration's crisis communication efforts over different periods.

The use of these Twitter messages can have practical implications during public crises at the national and global levels. The results of this study show that it is, in fact, imperative to establish a scientific-based system that automatically schedules comments regarding the messages of communication between the authorities and the people about the crisis. This automated system will aid government authorities to analyze and subsequently respond to large volumes of messages because in some cases authorities do not have the technical capacities to filter the large volumes of comments posted on Twitter.

Furthermore, the automated system will help uncover differences of opinion, sentiments, and issues of public interest or comments on social networks and will help to understand the characteristics of citizens. This study thus argues that the main feature of Twitter in the context of crisis

communication is the timely exchange of messages and the promotion of association, which acts as a means of first-aid communication in the early stages of a crisis.

The discussion on MOFA's Twitter platform is a good sign that those who understand the function of social networks in times of crisis and are active in crisis communication (Kang et al., 2019) are not just looking for information but also discussing among themselves (Diehl et al., 2016). Due to the uncertainty and threats posed by the Sudan crisis, the public sought information about the events by asking questions. As a result, some citizens have become information brokers (Palen, 2008, p. 78) or the Sudan Crisis Information Center on the MOFA's Twitter page.

Some members of the public have contributed to these centers by providing feedback and advice, expressing strong opinions, and providing information by posting comments on Twitter. The crisis communication chat system has enabled the public to receive updates on the Sudan crisis from a wide variety of audiences in various locations and has made its information presence user-generated. It has also led to an increase in informal messages from strangers and raised concerns about the accuracy and reliability of news on the Sudan crisis.

MOFA's Twitter platform provided an opportunity for some members of the public to express their strong dissatisfaction with the government's handling of the crisis in Sudan. Therefore, since Twitter provides two-way communication, this study suggests that future studies of the crisis in Sudan will facilitate authoritative crisis communication between the government and the government. rights and people in disasters. The crisis communication framework and citizen interaction on social networks used in this study have many implications for practice and research.

From a pragmatic perspective, this study demonstrates important ways that governments can use Twitter to inform, engage with citizens, and improve crisis communication operations in times of crisis. In addition, as explained in this study, differences such as citizen responses provide opportunities for further technical development of crisis communication practices and improved two-way communication during crises. While it takes real effort to fully embed effective crisis communications into Twitter and other social media platforms, potential audience opportunities validate the venture.

Another point of comparison for this study is the tone of people's responses. In this regard, the results elucidated that both positive and neutral emotions were evident, but the negative tone was the most significant. The positive comments show the Kenyan government's management approaches to the crisis in Sudan, as some support its handling of the crisis. The negative comments indicate a failure of the Kenyan government's approach to crisis communication, with individuals reacting negatively online. The neutral responses do not contain positive or negative sentiments but mainly advise people to follow the regulations put forth by the Kenyan government and other authorities to monitor the situation.

The diversity in tone of comments suggests that Kenyan authorities need to take into account different types of public attitudes in their crisis communication efforts to increase public participation in a crisis. To specifically improve the State Department's crisis communication, authorities should

monitor the different nuances of public comments, and assess how individuals respond to announcements. Crisis on Twitter and familiarize themselves with their responses to them.

This study shows that Twitter can verify differences in citizens' attitudes, the usefulness of encoding positive, negative, and neutral comments for comparative reasons, and the importance of those comments. Comprehension of the issues at hand is made possible by comparing comments with different tones. The results show that positive, negative, and neutral feedback is imperative to the Kenyan government's crisis communication efforts. Therefore, further studies are needed to develop the exploratory and practical meanings of audience attitude or tone to two-way crisis communication.

The results showed that the Kenyan government did not actively engage in discussions with the people on their Twitter platform during the crisis since they often used limited one-way communication. Therefore, public comments and questions should not be regarded as an indicator of public participation in decision-making on pandemic management. The Kenyan government's method of crisis communication during the crisis in Sudan is classified as limited two-way communication.

A lack of effective two-way communication not only prohibits the public from participating fully in the process of communicating a crisis but also prohibits the success of dialogue between the government and the populace. Future research will therefore exercise caution when conceptualizing one-way, limited, and unrestricted two-way communication within the context of crisis communication theory. It will aid scholars and crisis communicators in comprehending the complexity of the problem and creating efficient, theoretical, and practical, two-way, infinite communication techniques for authority-to-citizen and government-to-government communication.

The inflexibility of the authorities' conduct was demonstrated by their refusal to join the Kenyan citizens' Twitter conversations opting to provide information on Twitter. The lack of participation by the government fueled the spread of more rumors, fake news, and material of dubious quality on Twitter. Kenyan authorities underestimated the tools required for productive online conversation.

For the authorities to reduce the knowledge gap and improve the quality of information, they should use Twitter or other social media platforms, as social networks have improved communication two-way (Tirkkonen & Luoma-oh, 2011). The Kenyan government needs to be proactive and create relations with citizens before an epidemic. Gaining citizen trust in crisis communication means being available online, especially in times of disaster, when the need for messages, updates, and responses is critical.

Two restrictions on the study call for additional research. The first is that this study was initially centered around a solitary case study. To validate the findings, two case studies should be included in future research. The second is the short length of time. Even though a two-week period allows the researcher to better grasp the interaction between the government and the populace in times of crisis, a longer time frame would take into consideration a long-term relationship which would be pivotal.

5.1 Conclusion

This study has demonstrated that crisis publics are a resource that the government can use to ascertain information requirements of the general public. In their interactions, people may raise queries and request answers, highlighting the knowledge gaps that the government needs to fill. Therefore, to ensure that the demands of the people during a crisis are satisfied, the government must establish two-way contact on their social media pages.

REFERENCES

- [1] Adams, N. (2010). In Pursuit of a "New Secular": Human Rights and "A Common Word". Muslim and Christian Understanding: Theory and Application of "A Common Word", 175-187.
- [2] Bowden, J. L.-H., Luoma-aho, V., & Naumann, K. (2016). "Developing a spectrum of positive to negative citizen engagement." In R. J. Brodie, L. Hollebeek, & J. Conduit (Eds.), *Customer engagement: Contemporary issues and challenges* (pp. 257–277). Routledge.
- [3] Branicki, L. J., & Agyei, D. A. (2014). "Unpacking the impacts of social media upon crisis communication and city evacuation." In M. Preston, J. M. Binner, L. Branicki, T. Galla, N. Jones, J. King, M. Kolokitha, & M. Smyrnakis (Eds.), *City evacuations: An interdisciplinary approach* (pp. 21–37). Springer, Berlin, and Heidelberg.
- [4] Brummette, J., & Fussell, S. H. (2015). Using Twitter as a means of coping with emotions and uncontrollable crises. *Public Relations Review*, 41, 89–96.
- [5] Bruns, A., Burgess, J. E., Crawford, K., & Shaw, F. (2012). *#qldfloods and @QPSMedia: Crisis communication on Twitter in the 2011 South East Queensland Floods*. Brisbane: ARC Centre of Excellence for Creative Industries and Innovation (pp. 1–58).
- [6] Castells, M. (2004). "Informationalism, networks, and the network society: A theoretical blueprint." In M. Castells (Ed.), *The Network Society. A cross-cultural perspective* (pp. 3–48). Edward Elgar Publishing Ltd, Cheltenham.
- [7] Cho, M., Schweickart, T., & Haase, A. (2014). Public Engagement with Non-Profit Organizations on Facebook. *Public Relations Review*, 40(3) 565-567
- [8] Coombs, T. W. and Holladay, J. S. (2014), "How publics react to crisis communication efforts: Comparing crisis response reactions across sub-arenas", *Journal of Communication Management*, Vol. 18 No. 1, pp. 40-57
- [9] Diehl, M. (2016). Introduction to GPDs and TMDs. *The European Physical Journal A*, 52, 1-12.
- [10] Grabill, J. T., & Simmons, M. (1998). Toward critical rhetoric of risk communication: Producing citizens and the role of technical communicators. *Technical Communication Quarterly* 7.4, 415–441
- [11] Hester, J. B., & Dougall, E. (2007). The efficiency of constructed week sampling for the content analysis of online news. *Journalism & Mass Communication Quarterly*, 84(4), 811–824.
- [12] Kang, S., Shim, K., & Kim, J. (2019). Social media posts on the Samsung Galaxy Note 7 explosion: A comparative analysis of crisis framing and sentiment in three nations. *Journal of International Crisis and Risk Communication Research*, 2(2), 259-289.
- [13] Kavanaugh, A., Fox, E. A., Sheetz, S., Yang, S., Li, L. T., Whalen, T., Shoemaker, D., Natsev, P., & Xie, L. (2011). Social media use by the government: From the routine to the critical. In *Proceedings of the 12th Annual International Digital Government Research Conference: Digital Government Innovation in Challenging Times* (pp. 121–130). A.C.M., New York, NY.
- [14] Kim, J., Brossard, D., Scheufele, D. A., & Xenos, M. (2016). "Shared" information in the age of big data: Exploring sentiment expression related to nuclear energy on Twitter. *Journalism and Mass Communication Quarterly*, 93(2), 430–445.
- [15] Lucinda Austin, Brooke Fisher Liu & Yan Jin (2012) How Audiences Seek Out Crisis Information: Exploring the Social-Mediated Crisis Communication Model, *Journal of Applied Communication Research*, 40:2, 188-207,
- [16] Lundgren, R. E., & McMakin, A. H. (2013). *Risk communication. A handbook for communicating environmental, safety, and health risks* (5th ed.). Wiley & Sons.
- [17] McCorkindale, T. and Distaso, M.W. (2013), "The power of social media and its influence on corporate reputation", in Carroll, C.E. (Ed.), *The Handbook of Communication and Corporate Reputation*, Wiley-Blackwell, Boston, MA, pp. 497-512.
- [18] Mollema, L., Harmsen, I. A., Broekhuizen, E., Clijnk, R., De Melker, H., Paulussen, T., Kok, G., Ruiter, R., & Das, E. (2015). Disease detection or public opinion—reflection? Content analysis of tweets, other social media, and online newspapers during the measles outbreak in The Netherlands in 2013. *Journal of Medical Internet Research* 17(5),
- [19] Morckel, V., & Terzano, K. (2018). Legacy City residents' lack of trust in their governments: An examination of Flint, Michigan residents' trust at the height of the water crisis. *Journal of Urban Affairs*, 41(1), 1–17
- [20] Palen, L. (2008). Twitter adoption and use in mass convergence and emergency events. *International journal of emergency management*, 78.
- [21] Spence, P. R., Lachlan, K. A., Lin, X., & Del Greco, M. (2015). Variability in Twitter content across the stages of a natural disaster: Implications for crisis communication. *Communication Quarterly*, 63(2), 171–186.
- [22] Tampere, P., Tampere, K., & Luoma-Aho, V. (2016). Facebook discussion of a crisis: Authority communication and its relationship to citizens. *Corporate Communications: An International Journal*, 21(4), 414-434.
- [23] Tirkkonen, P., & Luoma-aho, V. (2011). Online authority communication during an epidemic: A Finnish example. *Public Relations Review*, 37(2), 172–174.
- [24] Urbaniak, G. C., & Plous, S. (2013). *Research randomizer* (Version 4.0) [Computer software]. <http://www.randomizer.org/>
- [25] 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.

- [26] Wachinger, G., Renn, O., Begg, C., & Kuhlicke, C. (2013). The risk perception paradox—Implications for governance and communication of natural hazards. *Risk Analysis*, 33(6), 1049–1065.