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Crisis communication, learning and responding: Best practices in social media

Xialing Lin ^{a,*}, Patric R. Spence ^b, Timothy L. Sellnow ^c, Kenneth A. Lachlan ^d^a Department of Corporate Communication, Penn State Worthington Scranton, United States^b School of Information Science, University of Kentucky, United States^c Nicholson School of Communication, University of Central Florida, United States^d Department of Communication, University of Connecticut, United States

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ABSTRACT

As noted by Seeger (2006) the notion of best practices is often used to improve professional practice; to create research and functional recommendations to use in a specific situation. This essay describes best practices in crisis communication specifically through the use of social media. It provides suggestions and approaches for improving the effectiveness of crisis communication and learning with and between organizations, governments and citizens. Seven best practices for effective crisis communication using social media are outlined.

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1. Introduction

It has been well documented that, during all stages of crises and risk events, people engage in various forms of communication to learn (McIntyre, Lachlan, & Spence, 2012; Nelson, Spence, & Lachlan, 2009; Lachlan, Spence & Seeger, 2009), to reduce uncertainty (Lachlan, Westerman, & Spence, 2010; Spence et al., 2005), and to gain a sense of personal control over the situation (Lachlan, Spence, Lin, Najarian, & Del Greco, 2016; Spence, Nelson, & Lachlan, 2010). One tool that is not utilized to its full potential as a crisis communication channel is social media. This may be due to its relatively recent diffusion compared to legacy media, and general uncertainty on the part of emergency managers concerning the best means of using the media. Additionally, research concerning data collection from social media for crisis communication is still in its infancy (Spence, Lachlan, & Rinear, 2016). The current essay uses both theoretical arguments and findings from empirical research to outline the state of the art concerning best practices in using social media for crisis communication.

As noted by Seeger (2006), the notion of best practices is a “popular approach to improving organizational and professional

practice in a wide array of venues, including many communication contexts” (p. 232); special issues across academic and trade journals in various disciplines have been focused on defining and establishing these best practices. Of note, risk and crisis literature, as well as research in public health and epidemiology, has provided numerous suggestions concerning how to best meet the public’s needs of crisis information and actions, how to address stakeholders’ emotional concerns, and many other aspects of emergency management (Reynolds, 2006; Veil, Reynold, Sellnow, & Seeger, 2008). However, recommendations for the use of social media for crisis management are largely unstructured and untested (Lachlan, Spence, & Eith, 2014). The prevalence of social media has changed the contemporary information media landscape in terms of information transmissions and accessibilities, which in turn affect the applications of risk reduction interventions and crisis management. Seeger (2006) noted that “the widespread adaption of best practices should be undertaken cautiously with a firm understanding of context factors and situational variables” (p. 233), which also highlights the necessity to apply social media usage to risk and crisis management. Seeger goes on to note that best practices are both theoretical and practical. The following best practices are research driven, emerging from laboratory experiments, applied research and user generated data (Spence et al., 2016). Crises, by their definition, are novel, unpredictable, and are even characterized as chaotic events that require deliberate and immediate

* Corresponding author.

E-mail address: xialinglin.psws@gmail.com (X. Lin).

responses; communication is central to crisis response. The difficulties involved with communicating in a crisis become more obvious because the public has the ability to have an immediate and sometimes exaggerated role in the conversation.

2. Best practices for crisis communication through social media

2.1. Fully integrate social media into decision making and policy development

Social media collapse diverse media and contexts into one, providing a comprehensive information outlet not only for daily life, but also for threatening situations with high uncertainties (Lachlan, Spence, & Lin, 2014; Westerman, Spence, & Ven der Heide, 2014). The public has increasingly relied on social media technologies to obtain and share up-to-date information such as geological data, text messages, pictures, videos, or a combination of these (Fox, 2011, Lachlan, Spence, Lin, Del Greco, 2014). Although social media allow for greater situational awareness regarding emergency responses, these platforms also hold many challenges for risk and crisis management. As Seeger (2006) suggests “crisis and risk communication is the most effective when it is part of an ongoing and integrated process” (p.237). Thus, it is necessary to incorporate the use of social media into risk and crisis decision-making and policy development. Public health and national security agencies including federal, state, and local levels should develop social media policies for emergency management to enhance their crisis response capabilities. For instance, Federal Emergency Management Agency (FEMA) and Red Cross build social media usage policy for different situations, and provide regular training with updated versions of social media tools, technologies, and strategy roadmaps to further emergency response missions (Veil, Buehner, & Palenchar, 2011). In addition, different levels of agencies, such as local, state, or federal, should adapt social media utility differently to their policy making according to their specific contexts.

2.2. Actively engage in dialogue online

Risk and crisis managers, as well as public health practitioners, should actively engage in ongoing conversations online with the public, listening to stakeholders' concerns and replying to victims' requests for assistance in a timely manner. Compared with legacy media, social media have revolutionized communication norms and protocols, and subsequently changed information processing within many social contexts (Lachlan, Spence, Lin & Del Greco, 2014; Walther, 2010). Social media technologies allow citizens and public health practitioners to directly communicate their experiences with the general public during the unfolding of a crisis, generating community crisis maps as well as empowering community resilience (Goolsby, 2010). Although social media platforms were not designed with emergency response in mind, the medium has been diffusing to aid in disaster response. In the literature on diffusion of innovations, this process is known as reinvention (Rogers, 2003). Reinvention occurs when a user makes changes to an innovation during the process of adoption. Emergency managers need to be open to this reinvention process and avoid the temptation to impede the process during an extreme event.

For instance, at one point during Hurricane Sandy, there were over 12.5 tweets sent per second using the hashtags promoted by NOAA and FEMA; however, in a sample of tweets collected during the storm, only nine tweets directly came from government agencies (Lachlan, Spence, Lin & Del Greco, 2014; Lachlan et al., 2014). During the information glut of everyone commenting on

an emergency, government agencies and crisis managers should actively seek the attention of affected publics trying to make sense of an overflow of information. Previous studies also indicate a lack of two-way communication between emergency managers and the public (Lachlan, Spence, Lin & Del Greco, 2014; Lachlan, Spence, Lin, Najarian, et al., 2014). These findings are consistent with Waters and Williams' (2011) critique on the use of social media by government agencies, which tend to provide a one-way stream of information to their stakeholders. Government agencies and organizations are less likely to engage in two-way interactions with the public unless being called upon to protect some kind of organizational image that has been damaged (Waters & Williams, 2011). Social media should be just that – social (Westerman, Spence, & Van Der Heide, 2012) and communication on that medium during an emergency should provide conversations that can be monitored and joined in on by a larger group of followers or those searching for information.

In addition, local residents usually serve as eyewitnesses to timely report ongoing crises and disasters such as the 2010 Haiti cholera outbreaks, the 2011 tsunami disaster in Japan, and Hurricane Sandy of 2012 (e.g., Dredze, 2012; Lachlan, Spence, Edwards, Reno, & Edwards, 2014). Therefore, instead of passively disseminating risk and crisis information online, emergency managers, as well as public health practitioners, should fully adopt social media technologies for two-way crisis communication, to monitor online users' activities to establish situational awareness. Moreover, engaging in ongoing risk and crisis communication dialogue online would encourage the public to continuously follow emergency agencies online, making social media feeds primary risk and crisis information sources for future events.

When the public asks about protective actions, those who promoted the hashtag should respond. When the public asks about evacuation routes or relief centers, those who promoted the hashtag should provide geographic locations, or link to maps that will help the person find the destination. When such questions are inquired, prompt responses should be provided. When a dialogue is started, it should be continued, and continued by the agency best able to provide the information needed for protective action.

2.3. Use media affordances to provide credible sources of information

Source credibility has been considered as a foundational key variable for information acceptance and interpretation (Hovland, Janis, & Kelley, 1953; Reynolds & Seeger, 2005; Spence, Lachlan, Spates, & Lin, 2013). Considering that risk debates and crisis situations are featured with new evolving power structures and substantial values, source credibility becomes a major medium for power controls and social influence in such contexts (Renn & Levine, 1991). Research has indicated that source credibility serves as a critical persuasive attribute that would reinforce the legitimacy of information providers and enhance public approvals and trustworthiness; information lacking credibility would likely impede crisis communication efforts, which in turn increases the potential harm and severity of the incident at hand (Glik, 2007; Renn & Levine, 1991; Sundar, 2008). For instance, a study of the Canadian Red River Valley floods of 2009 found that the local residences were likely to share tweets from authoritative news sources, or information from higher government levels (Starbird, Palen, Hughes, & Vieweg, 2010).

In spite of the advances empowered by social media technologies, social media also alter the public's information processing tendencies, thus creating challenges for locating credible and trustworthy information, especially during extreme events with high threats and uncertainties (Edwards, Spence, Gentile, Edwards,

& Edwards, 2013). Taking Hurricane Sandy as an example, the risk and crisis messages online challenged the public to locate tangible instructing information concerning health and properties in such a large scale crisis, suggesting a need for risk and crisis managers to provide credible sources of relative information online (Spence, Lachlan, Lin, & Del Greco, 2015).

A widely-accepted premise for online cognitive processing suggests that individuals are more dependent on cues and heuristics for decision making than they would be in face-to-face interactions (Walther & Jang, 2012). The development of technology affordances and the threat of information overload online tend to influence individuals to engage in heuristic processing with the least amount of cognitive effort as possible; individuals are more likely to process effortless information judgments triggered by heuristic cues online prior to systematic processing or cognitive analyses (Chen & Chaiken, 1999; Metzger, Flanagin, & Medders, 2010; Walther, 1992). Twitter accounts with experts' names may serve as official identity cues to guide individuals' credibility perceptions. Therefore, government agencies and public health organizations should set up official social media accounts with official identities on the profiles in order to convey credible perceptions when communicating with the public or partners. For instance, the Center for Disease Control and Prevention (CDC) encourages their members to start the names of social media accounts with "CDC", and requires security approvals from the CDC officer of the Chief Information Security Office for setting new accounts. The CDC also requires tweeting health messages through programs of standardized clearance channels (CDC, January 8, 2015). Additionally, risk and crisis managers and public health practitioners should employ system-generated cues online to convey credible impressions. System generated cues are stable signals computed by media systems, which are less possible to be manipulated and provide high levels of warrants or rationales for taking protective action (Donath, 2007; Sundar, 2008; Walther & Parks, 2002). For instance, Klout scores, an aggregate of social network computed signals, were found to positively influence online users' credibility perceptions (Edwards et al., 2013). Another study on the number of followers also found that too many or too few followers shown on a Twitter user's profile page would lead to lower levels of credibility evaluations (Westerman et al., 2012). Therefore, crisis managers and practitioners should be mindful of using the cues generated by the system-generated to aid in communication and credibility.

2.4. Be cautious about message update speed

The speed of message updates on social media is both high-risk and high-reward (Lachlan, Spence, Edwards, et al., 2014; Spence, Lachlan, Omilion-Hodges, & Goddard, 2014). Previous research on the role of update speed has examined its effects on cognitive processing and information seeking. Lachlan, Spence, Edwards, et al. (2014) explored the role of update speed on a Twitter feed and found that slow tweet dissemination may lead to less audience elaboration on the matter at hand. Social media users would tend to perceive a quick updated social media feed as more relevant, as breaking news, or as high involvement issues (Westerman et al., 2014). However, if fast-updated social media information is poorly executed, there is a high potential to judge message quality in a negative manner that is incomplete, inaccurate, and misleading (Lachlan, Spence, Lin & Del Greco, 2014; Lachlan, Spence, Lin, Najarian, et al., 2014).

Empirical evidence suggests that effective crisis management should focus on being quick with information feeds on social media, which would lead the public to actions by receiving updates from official or authoritative information outlets; the public would also engender a sense that government agencies and organizations

have the best interest of the audience in mind (Lachlan, Spence, Edwards, et al., 2014; Spence, Lachlan, Edwards, & Edwards, 2016). Thus, it is necessary to determine the schedules and frequencies of social media feeds. For instance, risk and crisis information can be sent out via one tweet or a series of tweets over and over again through the duration of an extreme event. Emergency managers and public health practitioners should ensure that the information is sent out frequently enough to be noticed and available to people searching during extreme events. It is also necessary for organizations to build a team of members who are accessible to one organizational official account and trained to provide constant updates. Agencies and organizations could also encourage their members to retweet or repost the official social media feeds on their own personal accounts.

2.5. Own the hashtag

During the pre-crisis stage and after the trigger event emergency agencies will promote a hashtag to use for acquiring information. For example, during Hurricane Sandy, the hashtag #sandy was promoted by both NOAA and FEMA. In a study by Lachlan, Spence, Lin, Najarian, et al. (2014), only nine tweets from government agencies appeared in a sample of almost 2000, whereas the overwhelming majority of tweets on the hashtag were from civilians. Most of the tweets were affective displays and indicators of stress and emotion; however many were humorous, of little practical use, or spam. If an organization promotes a hashtag, that organization needs to police the hashtag during an emergency and work to ensure useful information is available.

By way of comparison, Lachlan, Spence, Lin, Najarian, et al. (2014) examined the differences in content that could be identified through messages marked for local or non-local audiences. In their research on responses to a winter snowstorm, findings suggest that tweets marked with generalized hashtags were transmitted so fast that it was almost impossible to make sense of the glut of information that was present. Tweets retrieved using localized hashtags however, were transmitted at a rate whereby they could be sorted and internalized.

Furthermore, Lachlan, Spence, Lin, Najarian, et al. (2014) noted that the content of these groups of tweets was noticeably different. Although still facing some of the same concerns as their previous study, the data revealed that localized tweets were much more likely to contain actionable content that citizens could use to prepare themselves and to respond accordingly. In this analysis, almost all actionable information was associated with a localized hashtag.

It may be advisable for government agencies and first responders when dealing with localized crises, to designate particular hashtags for transmission of official information, warnings, and updates. By "owning the hashtag," responses may be able to direct affected audiences to useful actionable information, while reliance on organically generated hashtags surrounding the event may lead audiences to misinformation, affective outpouring, spam, and other less-than-ideal information.

Additionally, if the emergency has a longer trigger event, such as a hurricane or potential flooding, emergency managers can begin the communication process early. They can use the longer trigger event to promote what to do in the pre-crisis stage, what to do when the crisis manifests, and what to do in the aftermath. This will help the mitigation process and will allow the creation of messages that can be used throughout the lifecycle of the event. These organizations should continue to promote these messages with the same hashtag throughout the event, and to use other media (radio, TV etc.) to inform the public of what these hashtags are, so that they may be better able to find breaking news and information from authoritative sources as the crisis unfolds (Spence, Lachlan,

McIntyre, & Seeger, 2009; Spence, McIntyre, Lachlan, Savage, & Seeger, 2011). The simple recommendation is, if an organization promotes a hashtag, they should consider it their responsibility to maintain its accuracy and utility.

2.6. Cooperate with the public and similar organizations

The proliferation of social media both complements and complicates the ability to cooperate among different agencies, groups and the public. This is because the nature of social media can allow not only the government and media to work together, but brings the public into the conversation. This sharing and promoting of information can create a cooperative environment where information is shared, commented on and supported. As noted by Seeger (2006), in order “to maintain effective networks, crisis planners and communicators should continuously seek to validate sources, choose subject-area experts, and develop relationships with stakeholders at all levels” (p. 240).

In thinking about partnering and cooperating with the public through social media in an extreme event, emergency managers need to remember that members of the public who are sharing information, don't have an expressed mission. They are using social media out of a practical need, a goal to learn, or a desire to help. Social media provides both an opportunity and mechanism for members of the public to participate in the crisis discussion. Thus, the original conceptualization of gatekeeping may not be applicable in a social media environment (Spence, Lachlan, Westerman, & Spates, 2013). These members of the public, who are commenting on the crisis, are not beholden to newsrooms, editors, and journalists; rather, they are part of the collective intelligence and knowledge of the larger public. Bruns (2008) labels this shared, collective intelligence as gatewatching. Gatewatchers have no control over the gates through which information passes (as traditional gatekeepers do). Rather, the gatewatcher examines information from a variety of sources and then communicates that information to the larger public who decide on its usefulness. The gatewatcher then promotes news he/she believes is interesting or relevant to the broader information-seeking public. They also can add to, promote, and comment on the information. The change from gatekeeper to gatewatcher corresponds with an understanding that there is an overall shift from passive consumption of information to active participation in the news process.

In cooperating, emergency managers must not only build relationships with traditional response agencies but should also monitor the information trends in social media to identify who the influential gatewatchers are and bring them into the process. Therefore emergency managers must re-conceptualize what the process of cooperating means. When it comes to providing information and communicating through social media, cooperation entails more than just traditional agencies and standard organizational missions. The public now has a stronger voice in the conversation, and often may have information that is unavailable to emergency managers and government organizations. Emergency managers need to look at other agencies and the public as information dissemination partners and not competition.

Further, there may be many organizations with similar missions using social media during a crisis event. All participants (organizational and individual) need to view the environment as collaborative and not competitive.

2.7. Monitor misinformation

Emergency managers and crisis practitioners must monitor the social media landscape during an extreme event for misinformation. Although social media provide many advantages that were

discussed in this essay, many of those advantages also can become problems. For example, anyone with a social media account has the ability to post information. On social media one type of misinformation that occurs surrounding an emergency or risk is a rumor. Rumors may be intentional, or they may be the product of the absence of information from traditional sources or because accurate information cannot be found. When these trusted sources are unable to provide the desired information, members of the public may generate rumors (Aguirre & Tierney, 2001); in the absence of information from trusted sources, misinformation, rumor, and unlikely explanations are accepted over the discomfort associated with not knowing anything. Because both public uncertainty and public information needs are high during such events, rumors may emerge and diffuse quickly. Such misinformation can come from the public or credible news agencies. For example, in the case of the shooting at an elementary school in Newtown Connecticut, it was widely reported on social media, by several credible sources, that the shooter was named Ryan Lanza, when the real shooter was, in fact, Ryan's brother Adam (English, February 23, 2013). When reported by one news agency, others quickly picked up on the reports and either retweeted/reposted it, or used the information in a release of their own. The impact of this kind of misinformation is even more troubling when the possibility exists that it could lead to harm. Numerous examples of Twitter misinformation were cited in the aftermath of Hurricane Sandy (Holt, 2012).

3. Conclusion

It is apparent that social media technologies present government agencies, crisis communication practitioners, and first responders with a variety of new opportunities for reaching, informing, and motivating individuals who may find themselves in harm's way leading up to or in the immediate aftermath of some kind of major crisis or disaster. At the same time, the nuances associated with these media force a reconsideration of the norms and practices associated with crisis and risk communication. While the extant research and case studies on social media functionality during crises and risks are still crystallizing, it is the hope of the authors that the seven best practices outlined above provide an initial framework for consideration. These best practices are meant to be revisited, revised, and improved upon as data and observations concerning these complex, multifaceted interactions continue.

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