STAKEHOLDERS' USE OF MICROBLOGGING TO ENGAGE IN EMOTION STRATEGIES DURING A CRISIS

Research-in-Progress

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Abstract

The rise of microblogging has drastically transformed the ways in which people become aware of, talk about, experience, and respond to crises. Microblogging allows for multiple stakeholders to express and manage emotions that a crisis may trigger. This research examines how multiple stakeholders engage in emotion strategies through microblogging over the course of a crisis. Relying upon and extending emerging literatures on crisis management and the psycho-sociology of emotions, we propose the concept of emotion strategies to explore and elaborate upon the different uses of emotions and their crucial importance in a crisis context. We examine how microblogging features and affordances might enable and shape the emotion strategies of various stakeholders involved in a crisis. We outline the details of an ongoing investigation in the context of the 2010 Gulf of Mexico oil spill and provide illustrative insights. We conclude by highlighting future steps in this research and expected contributions.

Key words: Social media, crisis management, multiple stakeholders, emotions, Gulf of Mexico oil spill

Introduction

The rise of social media in general and of "microblogging" in particular has recently drastically transformed the ways in which people and organizations become aware of, talk about, experience, and respond to crises (Hughes & Palen, 2009; Jin & Pang, 2010; Sreenivasan, 2011). Microblogging, a new, web-based medium that allows its users to exchange small elements of content (Java et al., 2007; Kaplan & Haenlein, 2011; Namaan et al., 2011), has especially made it possible for large groups of dispersed stakeholders and publics affected by a crisis to discuss it publicly online almost in real time (Becker et al., 2011; Lotan et al., 2011). For instance, when a plane dramatically, yet safely, landed on the Hudson River in January 2010, news got out first through the microblogging service Twitter (Hermida, 2010). Merely moments after an earthquake, emotional public accounts of the event were also broadcast through microblogging (Sakaki et al., 2010). Similarly, Heverin (2011) showed that some people relied upon microblogging to express thoughts and feelings triggered by highly dramatic situations such as campus shootings. In the corporate world, as well, microblogging has recently become involved in critical situations and managers have had to face consumers' louder online voices (Gallaugher & Ransbotham, 2010). This new situation triggered by the availability and growing popularity of microblogging has generated unprecedented opportunities and challenges for people, corporations and institutions facing crises (Dunn, 2010; Majchrzak, 2011; Veil, 2011; Wigley, 2010; Yang et al., 2010). There is now almost a real-time deluge of online discussions about a crisis as information and misinformation travel fast (Jansen et al., 2009).

For organizations, successful crisis management is paramount as their reputation can be severely damaged in the process (Coombs, 2007). Therefore, while organizations continuously seek to enact optimal crisis response strategies (Coombs & Holladay, 2004), the advent of microblogging has increased the complexity of crisis management challenges. By definition, crises are highly emotional and since microblogging can facilitate the expression of emotions (Cheong, 2011; Choi, 2009), the use of microblogging can have drastic impacts on the image of entities involved in the crisis and lead, for instance, to slides in the share price of publicly traded corporations (Bollen et al., 2011) or to consumer boycotts (Lindenmeier et al., In Press). At the same time, though, microblogging also allows for multiple stakeholders involved in a crisis (e.g. corporations, news media, activist organizations, political parties) to respond publicly and almost instantaneously to these expressed emotions as well as, perhaps, to try and manage them optimally. Microblogging has thus generated an unprecedented situation for crisis management in that multiple stakeholders have become publicly engaged in strategies related to expressing, eliciting, and responding to emotions and do so in real time and on a massive scale. This research examines this new theoretically and practically important phenomenon by investigating the following question: How do multiple stakeholders mutually engage in diverse emotion strategies through microblogging over the course of a crisis?

Relying upon and extending emerging literatures on crisis management and the psycho-sociology of emotions, we propose the concept of emotion strategies to explore and elaborate upon and their crucial importance in a crisis context. We then examine how microblogging features and affordances might enable and shape the emotion strategies of various stakeholders involved in a crisis. We outline the details of an ongoing empirical investigation of emotion strategies enacted through microblogging in the context of the 2010 Gulf of Mexico oil spill and provide preliminary insights. We conclude by highlighting future steps in this research and expected implications and contributions of our work.

Conceptual Framework

Crises Situations and Their Stakeholders

Pearson and Clair (1998, p. 60) defined a crisis as a "*low-probability, high-impact event that threatens the viability of organizations and is characterized by ambiguity of cause, effect, and means of resolution, as well as by a belief that decisions must be made swiftly*." Crises are highly uncertain, unpredictable and involve high stakes (Majchrzak et al., 2007; Pauchant, 1993). At the same time, the academic literature has shown that crises also follow temporal patterns with interrelated stages (Fink, 1986): a prodromal stage that builds up to the actual crisis; an acute crisis stage when a situation deteriorates and escalates into a full-blown emergency; a chronic stage that can last long and that refers to the cleanup phase where the negative impacts of the crisis are being addressed and lessons learned are being drawn; and a crisis resolution stage when the negative impacts of the acute and chronic crisis stages have been fully mitigated. The various stages of the crisis are however interconnected, and crisis management aims at reaching the crisis resolution stage in a most expedient manner.

Moreover, crises involve multiple stakeholders such as corporations, the general public, government, media, activists or nonprofit organizations (Birkland & Nath, 2000; McDonald et al., 2010a; Pearson & Mitroff, 1993). A stakeholder has been conceptually defined as *"any group or individual who can affect or is affected by the achievement of the organization's objectives"* (Freeman, 1984, p. 46). With the democratization of discourse enabled by the use of various technologies, the number of stakeholders in a potential crisis has increased. As such, from a crisis management perspective, this proliferation and expansion in the number of stakeholders implies that *"[i]t is no longer enough for any organization to consider merely its own crisis management interests in isolation from the environment."* (Pearson et al., 1993; p. 57). These various stakeholders experience the crisis differently, get involved and have diverse interests and commitments associated with solving the crisis (Pearson & Clair, 1998).

Crises are thus dramatic events that are socially constructed by these multiple stakeholders (Britton, 1988; Hearit, 2003). At the same time, crises are contexts that pose intricate challenges in terms of information, sensemaking, and action (Weick, 1993, 2010). Dealing with these challenges is difficult in part because the experience of a crisis is emotion-laden and thus cannot be understood entirely rationally by multiple stakeholders and observers involved in the crisis (Coombs, 2011; Fredrickson, 2003; Kim, 2011).

Emotion Strategies During a Crisis

Crises are indeed emotional times. They trigger emotions in various stakeholders involved in the crisis such as fear for the public (Jin et al., 2006), sadness or anger for leaders of failed products (Madera & Smith, 2009), or sadness for victims of terrorist attacks or natural disasters (Cho et al., 2003; Fredrickson, 2003; Goren, 2007). Overall, the critical nature of some events creates a context for highly emotional reactions.

The academic literature on crises and crisis management has acknowledged the roles of emotions in crisis management. Researchers have examined, for instance, how managers' emotions affect their handling of crises (Janis, 1989; Sayegh, 2004; Schwarz, 2000), as well as how emotional the reactions to crises of multiple stakeholders and the public at large can be (Jin & Pang, 2010). For instance, the expression of positive emotions in the wake of dramatic crises has been associated with a better ability to cope with crises and with individual resilience (Bonanno, 2004; Fredrickson, 2003).

There has been a rich tradition in the sociology, psycho-sociology and organizations literatures on the management of emotions (Hochschild, 1979; Lutz & White, 1986), including during crises (Lois, 2001). Research has examined, for instance, how service workers often have to convey emotions that they do not actually feel and thus experience emotional dissonance (Morris & Feldman, 1996; Tumbat, 2011). Rafaeli and Sutton (1991) also showed how professionals such as criminal investigators or bill collectors adopt various emotion strategies in order to exert social influence. More generally, the literature suggests that the management of emotions and, in particular, the emotion strategies that various actors might pursue are communicative and relational by nature (Lois, 2001; Schweingruber & Berns, 2005; Voronov & Vince, 2011). In this paper, we distinguish three main emotion strategies that stakeholders involved in a crisis pursue: expressing emotions, responding to emotions, and eliciting emotions.

Expressing emotions

Expressing emotions can act as a release for emotion regulation (Gross, 1998; Pennebaker, 1993). When dealing with tragedy, expressing emotions can be cathartic (Pennebaker, 1997). At the same time, though, expressing emotions is not the same thing as experiencing them (Hochschild, 1979). What people say about their emotional states and their actual emotional state are not fully identical: emotions cannot entirely be put into words, and there is a dimension of performance and self-presentation in the expression of emotions. This paper focuses on discourse, rather than on the actual experience of emotions. Indeed, microblogging allows for the broadcasting of discourse online, including regarding claimed emotional states, but does not provide unfettered access to emotional states.

Expressing emotions is not only an individual-level strategy; it also has an important social dimension. Research has in this regard highlighted emotion contagion or emotional "convergence" among interconnected parties (Anderson et al., 2003), including in workplace situations, such as in work groups (Barsade, 2002; Bartel & Saavedra, 2000). Moreover, expressed emotions can also contribute to others' changes of behavior. Faseur and Geuens (2010) for instance showed that when people express negative, positive, or mixed emotions regarding a certain cause they also contribute to others' sense of connection with and willingness to help with a cause.

Responding to emotions

The experience and expression of emotions, especially in times of crises, triggers a second strategy, that of responding to emotions. In this regard, Lois (2001) revealed that an important aspect of the work of a volunteer search and rescue group was to deal with and react to the emotions of victims of traumatic incidents. As they responded to emotions, these workers were developing relationships with victims and their families that often outlasted the crisis. In the corporate realm, protecting the organizational image through action or communication of some kind is especially important as organizations are susceptible to the public emotionally attributing responsibility on the crisis (Coombs, 2007). Coombs (2005) also examined empirically how different responses to a crisis might variously protect an organization's reputation depending upon the type of emotion (e.g. sympathy, anger, etc.) that the crisis has triggered. Knowing what to do and what to say, though, in response to emotions in times of crises is however delicate (Coombs, 1995). For instance, depending upon the situation, publicizing corporate apologies might alleviate the public outrage but may also exacerbate the expression of negative emotions towards a crisis and the company (Hearit, 2006).

Eliciting emotions

A third emotion strategy is to use discourse and communicate with others in order to elicit emotions. Coan and Allen (2007) as well as Gross and Levenson (1995) for instance discussed how some researchers rely upon various methods so as to evoke and provoke emotional reactions in laboratory conditions. Advertisers, marketers, and the media also routinely rely upon various means to provoke consumers' and various publics' emotional reactions, so as to create, for instance, a bond between a product and its target audience as well as interest on a topical issue (Dillard & Peck, 2000; Erevelles, 1998; Hirschman & Stern, 1999). In the political world, as well, campaigns often appeal to voters' emotions in order to persuade them (Brader, 2005). Similarly, the news media engage in emotion elicitation in order to convey different types of information about an event and to strike interest on topical issues (Cho et al., 2003; Murry & Dacin, 1996; Newhagen, 1998; Uribe & Gunter, 2007).

Eliciting emotions is especially important in crises contexts as it can help change the public's perception of the crisis and might contribute to its resolution or, at least, to limit the damage associated with it. For instance, Jin et al. (2006) showed how the Singapore authorities were able to stir the public's perception of the SARS outbreak away from a collective panic by eliciting calmer emotions through a public relations campaign relayed by the news media.

Having defined each of these emotion strategies, we now make three important remarks regarding them. First, we contend that emotion strategies are related to but not identical to the actual experience of emotions. While emotion strategies are social and discursive, emotions are experienced individually and at the psychological level (Rusell, 2003). Second, in this research we contend that different stakeholders variously engage in diverse emotion strategies. Publics affected by a crisis, for instance, are especially likely to engage in the expression of emotions. Corporations and government dealing with or responsible for a crisis are by contrast more likely to respond to emotions and to elicit emotions (Coombs, 2007; Coombs, 2005; Jin et al., 2006; Ray, 1999). The news media is also likely to engage in eliciting emotions (Murry & Dacin, 1996; Rule & Ferguson, 1986). Third, at the same time, we neither consider that emotion strategies are exclusive nor that stakeholders are confined to a single strategy. For instance, in a context of crisis, a company (through its public relations offices) responding to public displays of emotions (e.g. distress, sadness) might do so by also expressing emotions (e.g. empathy) and trying to elicit other emotions (e.g. more positive ones) (Jin, 2010; McDonald et al., 2010b).

Microblogging Features and Affordances and Emotion Strategies

There has been growing interest in the Information Systems (IS) discipline on the relationships between emotions and Information Technology (IT). Research on IT and emotions has examined the relationships between emotions and IT acceptance and use (Beaudry & Pinsonneault, 2010; Ortiz de Guinea & Markus, 2009), as well as the emotions in IS and organizational change (McGrath, 2006). It has shown how IS facilitate but also constrain the expression of emotions. It has also highlighted that how Computer Mediated Communications involve users who are not only rational beings, but also highly emotional ones (Rice & Love, 1987).

As an increasingly popular platform of the "Web 2.0" generation, microblogging offers interesting features and affordances for emotion strategies. Features correspond to the properties that are physically embodied in the IT artifact (Markus & Silver, 2008). Affordances correspond to "action possibilities" (Gibson, 1977) through which the technical functionality becomes "*recognized as a social object*" (Zammuto et al., 2007). Microblogging "*allow[s] users to exchange small elements of content such as short sentences, individual images, or video links*" (Kaplan & Haenlein, 2011). Twitter (www.Twitter.com) is currently the most popular microblogging platform with more than 100 million users as of December 2011. Twitter allows its users to broadcast freely news and content as well as to share opinions and links to other webpages (Java et al., 2007; Namaan et al., 2011). In times of crises and notable events, between 5,000 and 9,000 tweets per second are posted (http://yearinreview.Twitter.com/en/tps.html).

Microblogging allows for the exchange of extremely short and almost instantaneous messages or posts. In Twitter, for instance, posts (or "tweets") are limited to 140 characters in length. Microblogging also offers one-to-many and many-to-many communication capabilities. Microbloggers (called, in the case of Twitter, "tweeters") can follow one another on the basis of shared interests. Furthermore, discourse produced through microblogging can be organized as microbloggers assign tags to their posts. In the case of Twitter, in particular, tweeters can attach various "hashtags" ("#") that can help users of the service search for microblog posts on specific topics. Moreover, microblogging discourse can be generally broadcasted or directed as their authors can specify targets for their posts. In the case of Twitter, directed communications are indicated by the symbol "@." Finally, microblogging makes it very easy for people to share links to webpages, sources of information, or other microblog postings.

These features and affordances of microblogging shape how emotion strategies get enacted in a crisis context. Budding academic literature has for instance shown how some people have taken to microblogging to express emotions in critical times such as societal uprisings (Gaffney, 2010; Lotan et al., 2011; Morozov, 2009). Loose and ephemeral communities who express similar emotions in response to a crisis might thus come together through microblogging (Chmiel, 2011; Mitrović, 2010). Additional emotion strategies might also be carried out through microblogging in times of crisis as the user-friendliness and low-cost characteristics of the new medium make it possible for multiple stakeholders to adopt the medium to reach and communicate with others. What is more, microblogging affords the emergence of Internet "memes," i.e. of concepts or ideas that spread widely through the Internet (Berinato, 2010; Ratkiewicz et al., 2010; Shifman, 2011), which might be especially prevalent in crises contexts since crises are confusing times that involve multiple entities. Moreover, microblogging allows for two-way communications. For this reason, the emotion strategies of various stakeholders are likely to relate to one another through microblogging. For instance, through the same platform of microblogging, diverse publics might express emotions, the news media might elicit emotions, and corporations involved in the crisis might respond to these emotions. Microblogging affords fast reactions and response to the emotions strategies of various stakeholders.

Overall, based upon existing, relevant, literatures we developed a conceptual understanding of some key aspects of stakeholders' emotion strategies in a crisis through microblogging. However, there is still little empirical evidence on important aspects of how multiple stakeholders engage in emotion strategies through microblogging. In particular, we hardly know about how different categories of stakeholders might enact various emotion strategies through microblogging. Moreover, we do not know much about how the emotion strategies of various stakeholders might change over the course of a crisis. Finally, existing research has not yet fully unearthed how the emotion strategies of various stakeholders might relate to each other over time and are shaped through diverse microblogging features and affordances.

Our ongoing empirical investigations therefore aim at further addressing our research question by examining these important issues.

Methods

Research Setting

We chose an opportunistic context to examine empirically the emotion strategies of various stakeholders through microblogging, the Gulf of Mexico oil spill. The oil spill was, according to statistics released by Twitter, the most microblogged about topic of 2010, which revealed wide interests and concerns in the "Twitterverse." While the oil spill originated from a leak that started in April 2010, the crisis unfolded over a period of several months (until the leak got capped) and its economical, ecological and political repercussions have been ongoing ever since. It triggered an outpour of reactions, in particular emotion-related ones, through Twitter on the part of multiple stakeholders, including the public at large, local communities, news media, activist organizations, government, and British Petroleum (BP), the firm most directly associated with the spill (Hoffman & Devereaux Jennings, 2011; Kirsch, 2010; Vaast et al., 2012). The oil spill therefore constituted an interesting setting for us to examine how various stakeholders used microblogging to enact emotion strategies related to the oil spill.

Collected Data and Analysis Methods

We collected microblog posts published through the Twitter platform. In order to access Twitter's archives we relied upon Topsy (http://topsy.com), a publicly available real-time search engine for the social web. Topsy archives tweets and allows users of the service to search for tweets within a defined time period. We used Topsy's Otter API, a RESTful HTTP web service that provides access to Topsy's search results, url information and author information along with the intermediate data (like author influence) that is used in the creation of search rankings. We searched for tweets containing either #bpoilspill or #oilspill on a weekly basis. This returned up to 1,000 tweets per week while satisfying the API limit of the number of pages accessed daily. Our overall resulting data set contained more than 76,000 tweets dated from April 20th 2010 to November 30th, 2011.

To deal with our large data set and to facilitate the coding and the classifying of our sample, we used automated algorithms based on natural language processing (NLP) to pre-process the data and identify relevant stakeholders and microblog posts for further consideration. NLP, a subfield of Artificial Intelligence (AI), deals with the computational aspects of analyzing and processing human language text. The applications of NLP have recently flourished. Such applications include speech recognition, text translation, and question answering and have been applied for multiple research and business purposes (e.g. Aron, 2011; Ferrucci et al., 2010).

We relied upon NLP to conduct theoretical sampling (Strauss & Corbin, 1998) and locate microblog posts of relevance to our interest on the emotion strategies of multiple stakeholders. We used OpinionFinder, a sentiment and opinion classification system originally developed at the University of Pittsburg (Wilson et al., 2005a; Wilson et al., 2005b). OpinionFinder operates with three automated, sequential steps as it identifies: 1) subjective posts and the various types of subjectivity within those tweets (e.g. positive, negative) (Wiebe & Riloff, 2005) the agents who are sources of the identified opinions (e.g. companies, government, individuals) (Choi et al., 2005), the words that express subjective expressions and sentiment expressions are annotated (e.g. anger) (Choi et al., 2006; Wilson et al., 2009).

Building upon this theoretical sampling, we are currently in the process of developing further empirical analyses and for this have engaged in iterative coding that follows qualitative data analysis and grounded theorizing recommendations (Denzin & Lincoln, 2000; Strauss & Corbin, 1998). The coding untangles various occurrences of emotion strategies and their enactment through microblogging.

Illustrative Findings and Future Steps

As illustrated in Table 1, preliminary analysis of the data suggests that stakeholders indeed engage in various emotion strategies during a crisis and that some strategies are more prominent depending on the categories of stakeholders. As we will delve more deeply in the data, we expect to uncover some of the patterns that are associated with different emotion strategies. Taking into account how various stakeholders engage in expressing, responding and eliciting emotions via microblogging, as part of their efforts of managing a crisis, we aim at proposing a typology of emotion strategies and at theorizing how these emotion strategies interact and change over time.

Table 1: Illustrative Findings

Emotions strategies Main Stakeholders	**Microblogging features and affordances**	**Illustrative microblog posts**
Expressing emotions Publics: directly involved in crisis or at large	- Defining feature: short communications - Almost instantaneous character of medium - Organizing posts around shared topics. - Ability to relay others' posts: contagion effect for expressed emotions	*"You can't hear anything anymore. No birds, no toads, no crickets, nothing. It's just silent #oilspill"* ⇒ Expressing sadness "*Looking at the images of oil covered animals, or worse, animals who have died as a result of the #BPOilSpill, breaks my heart. #FUCKYOUBP*" ⇒ Expressing sadness and anger
Eliciting emotions Media (e.g. NYT, CBS news); Political and activist organizations (e.g. political parties, Greenpeace)	- Ability to link to videos - Ability to relay others' posts – affords highlighting / eliciting expression of certain emotions (or of certain stakeholders) over others. - Ability to engage with emerging "memes" through the "@" feature	"*RT @chadenelsen: Now at least 82 dead dolphins in the Gulf. Could it be the #oilspill? http://t.co/YDRLeac*" ⇒ Eliciting fear "*THE PEOPLE OF THE GULF COAST DESERVE HEALTHCARE AFTER THE EFFECTS OF THE BP #OILSPILL!! WE MUST FIGHT FOR IT!!! http://alturl.com/sho6o*" ⇒ Eliciting anger
Responding to emotions Corporation directly involved in crisis, i.e. BP; Political interests and government	- Addressing various publics directly (targeted tweets) and in general (non targeted tweets). - Almost instantaneous character of medium: fast responses to emotions - Monitoring of reaction to crisis - Using various contents (e.g. videos, links, etc.) to react in various ways to emotions	*"@BP_America: New Video: BP Snr. VP Kent Wells provides a detailed update on the current efforts to contain the leak: http://bit.ly/9xnitO #oilspill #bp"* ⇒ Responding by providing information *"@BPAmerica - Following the #oilspill, Mardi Gras 2011 will be a party. Read more about the party here: http://aol.it/eAkGe3 #NOLA"* ⇒ Responding by prompting turning negative into positive emotions

We also conducted a preliminary analysis in order to make sense of temporal changes over the course of the crisis and of interactions among various stakeholders' emotion strategies. To do so, within our sample of tweets, we theoretically sampled two key events that happened during the acute stage of the crisis in order to understand better how emotion strategies changed over the course of these events. These two events were two failed attempts to plug the well, i.e. the containment dome (May 7/8th 2010) and the top kill procedure (May 26/29th 2010). We searched through our sampled microblog posts for May 2010 and June 2010 for "dome" and "top kill" to isolate the relevant content. It should be noted that the interest in these procedures past June 2010 disappeared, as they were no longer discussed via Twitter.

Our analysis revealed that, in both cases (dome / top kill), emotions were being generally expressed before the actual event (e.g. from the public, expressing emotion (hope): "RT @Fleur_dLovely: @googlewaveyour Our local news has dubbed the containment dome for the #oilspill the "Dome of Hope". fingers crossed!"; or from an activist organization, expressing frustration: "RT @greenbiztweets: Argh! BP's Attempt to Plug Leaking Well With "Top Kill" Delayed").

As the focal event came to some sort of a conclusion (i.e. documented inability to plug the well), emotion strategies changed. No longer were there merely expressions of emotions, but there was also more eliciting of emotions (e.g.: from the media: "RT @PlattsOil: BP says containment dome not yet deployed over US Gulf oil leak due to hydrates problem; Suttles: "I wouldn't say it's failed yet" #oilspill.")

Moreover, after each of these failed containment attempts and as the oil spill crisis worsened, there were also instances when the expression of emotions accompanied the eliciting of emotions (e.g. from an activist: "RT @BoycottBP: The containment dome is not working - hydrates formed and are making dome buoyant. This is a GIANT setback. #BoycottBP !!!! #oilspill"; and from an individual: "Pretty sure This Top Kill thing isn't working. However, "Everything Else Kill" is going splendidly. #oilspill"). We interpreted this combination of expressing and eliciting emotions as revealing a greater expressed engagement with the crisis and some course of action to resolve it as well as, implicitly, as revealing an intention to incite audience to "buy" into the microblogging discourse.

With regards to the strategy of responding to emotions, BP (one of the main corporations involved in the spill), did not seem to respond, via microblogging, to the unfolding of the first failed containment attempt (the dome one), but they seemed to respond to the second one (top kill one). With regard to this latter event, some stakeholders were engaged in eliciting emotions, such as from an activist, @MakeyMemo: "#BP to Kill Top Kill Video Feed of #OilSpill; Blackout Public from Watching Undersea Footage." We also noticed instances of expressing and eliciting emotions regarding the same event (from another activist, @BoycottBP: "BP will NOT show " TOP KILL" live -- will take live #oilspill feed offline early Wednesday morning will resume after attempt. #BoycottBP). Following such microblog posts, BP engaged in responding to emotions through microblogging (e.g., from @BP_America: "BP will continue to provide live video feeds from the seabed throughout the planned "top kill" procedure #oilspill #bp" and "Any statement that a decision was made to stop the live coverage of the "top kill" procedure is both inaccurate and premature #oilspill #bp").

The same sequence of expressing (and / or eliciting) then responding to emotions from different stakeholders appeared after top kill failed. There was apparently a time lapse between the moment that it was known to BP that the procedure failed and the instant that the public was announced. This lapse led to eliciting of emotion (e.g. from the media, @LisaDCNN: "Unclear: Why did BP/response team wait 16 hrs to reveal it suspended Top Kill to reassess? Did Coast Guard commandant know?), which was followed by the articulation of a response ("BP apologizes for not telling us they stopped "top kill" Wed. night: http://bit.ly/bgmWTf #oilspill).

Future steps

Future steps of this research will combine further automated and manual coding of emotion strategies as well as interviews with key representatives of the main stakeholders involved in the crisis.

For one, thus, we will engage in identifying systematically how different categories of stakeholders engage in various emotion strategies through microblogging over the course of the crisis. For this purpose we will draw a theoretical sample of microblog posts from stakeholders and manually code whether these posts seem to exhibit emotion strategies and, if so, which ones and how they unfold over time. We will follow accepted guidelines for rigorous qualitative coding of discourse data and will pay close attention to changes over time in our observations. In addition, we will engage in automated coding in order to understand better which expressed emotions (e.g. anger, sadness, surprise, etc.) have appeared in the broader sample.

In addition to this qualitative and quantitative analysis of the microblogging discourse, we will also conduct interviews with key representatives of the main categories of stakeholders involved in the crisis who have been especially active and noted participants in microblogging. The purpose of these interviews, to be conducted mostly virtually, will be to build an understanding of stakeholders' actual intentions behind microblogging, in order to further our conceptualization of the three emotion strategies and of the interactions, over time, among different categories of stakeholders.

Expected Contributions and Implications

This research will contribute to further understanding the roles of social media in crisis response, management and communication by examining and theorizing how, in response to a crisis, different stakeholders rely upon microblogging to engage in various, interrelated, emotion strategies. Indeed, the crisis management literature has not yet fully addressed the implications of microblogging in the context of a crisis or accounted for how the enactment of collective emotion strategies through microblogging might change over time. The crisis management literature has examined a multiplicity of stakeholders directly related to a crisis and the complexities involved in dealing with it (Fink, 1986; Pearson & Clair, 1998). It has also discussed how organizations responsible for a crisis might respond to it to limit the damage to their image (Coombs, 1995). However, public relations in the social media age are still being defined given how broad, diverse and volatile the public expressions of emotions related to a crisis might be (Jin, 2011). Examining how various stakeholders rely upon features and affordances of microblogging to enact emotion strategies in the context of a crisis such as the Gulf of Mexico oil spill and how these strategies might change over time is thus also theoretically important and can add to the literatures on IS and crisis management.

The crisis management literature has already highlighted the dynamic of crises, distinguishing among the prodromal, acute, chronic and resolution stages of crises (Fink, 1986). The features of microblogging afford almost instantaneous publication and sharing of contents, including emotion-related ones. A contribution of this research will be to examine how the three emotion strategies enacted through microblogging might affect the temporality of crises and of the emotions that crises unleash. Indeed, the social sharing of emotions can lead to the prolongation of the experience of emotion (Verduyn et al., 2011), so it is possible that the expressing emotion strategy might cultivate its own persistence over time. However, some of the key goals of the responding to emotions and eliciting emotions strategies are to change what and how emotions are experienced and expressed. Therefore, we intend to rely upon our Gulf of Mexico oil spill microblogging data in order to examine empirically how the emotion strategies interact with one another through microblogging over the course of the crisis. We will in this regard also explore possible or potential differences in these interactions according to the stage of the crisis.

In conclusion, the central thesis of this research that crisis stakeholders carry out various emotion strategies through microblogging has the potential to be important and groundbreaking for the crisis management and social media literatures. The affordances and growing popularity of social media applications, and in particular of microblogging, have generated Internet-based discursive "universes" where multiple stakeholders react and respond to the crisis but also interact and engage with one another. Some microblog posts travel fast and gain a vast readership within the microblogging world and stakeholders can use microblogging to gain influence over the course of a crisis. While there has been research on microblogging in crisis situations (e.g. Hughes & Palen, 2009; Jin & Pang, 2010; Sreenivasan, 2011), this emerging scholarship has so far been mostly descriptive and empirical. As noted by a growing number of IS researchers (Kane et al., 2012; Majchrzak, 2009), there is a need to further develop theories of social media. It is our belief that concepts of emotion strategies and of interactions through microblogging among various stakeholders of a crisis can contribute to build such theories of social media in crisis contexts.

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