

# Social Media as Information Source: Recency of Updates and Credibility of Information\*

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*Social media are increasingly being used as an information source, including information related to risks and crises. The current study examines how pieces of information available in social media impact perceptions of source credibility. Specifically, participants in the study were asked to view 1 of 3 mock Twitter.com pages that varied the recency with which tweets were posted and then to report on their perceived source credibility of the page owner. Data indicate that recency of tweets impacts source credibility; however, this relationship is mediated by cognitive elaboration. These data suggest many implications for theory and application, both in computer-mediated communication and crisis communication. These implications are discussed, along with limitations of the current study and directions for future research.*

**Key words:** System-Generated Cues, Social Media, Recency, Twitter.

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Newer communication technologies have increased the possibilities for how people can send and receive information. Social media are one such technology that has seen increased usage as an information source (Pepitone, 2010). For example, social media are being used to seek information about serious topics, such as circulating up-to-the minute information about cholera outbreaks in Haiti and identifying clean water sources during this outbreak (Sutter, 2010). Social media has also seen a great deal of usage by those seeking health information, with 59% of adult Americans (80% of internet users) reporting that they have accessed this type of information online (Fox, 2011). As this Pew Report suggests “people use online social tools to gather information, share stories, and discuss concerns” (Fox, 2011, p. 5). Similarly health professions and organizations are seeing the advantages of adopting social media because it is seen as an information equalizer allowing access to health care information to populations who, in the past, would not have this access (McNab, 2009). It provides a sense of privacy for the information seeker in that he/she does not have to disclose personal information in order to obtain health related information.

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However, a major question surrounding the use of social media as an information source is how people assess the source credibility of this information (Westerman, Spence & Van Der Heide, 2012). This question becomes especially important to answer for users of social media, as the gatekeeping function switches from producers to consumers of information for newer technologies (Haas & Wearden, 2003). These newer channels provide new pieces of information not available in “legacy” channels which may be used to make credibility judgments, such as the ability to see how quickly and recently a page host updates their page. The current study examines how this piece of information impacts a viewer’s cognitive elaboration and their perceived credibility of the source.

### **Social Media and Credibility Judgments**

The types of information suggested in the first paragraph of this paper share at least one thing in common: they all deal with uncertain situations highlighted by potential danger. Overall, when uncertainty represents potential danger, people actively engage in information seeking (Brashers, Neidig, Haas, Dobbs, Cardillo, & Russell, 2000; Spence, Lachlan & Griffin, 2007). They will seek information from a variety of sources, and will constantly update their information. Mass media have historically been a dominant source (Murch, 1971), possibly because they are generally thought to provide credible, valuable, and timely information (Heath, Liao, & Douglas, 1995). However, along with traditional forms of media, newer media are increasingly available for information seeking. One channel that provides many opportunities for this purpose is the Internet. Research suggests that people use the Internet in seeking information about crises (Spence, Westerman, Skalski, Seeger, Sellnow, & Ulmer, 2006). More recently, social media have provided a new and potentially powerful platform for people to use in seeking such information.

Social media are a general category of channels and applications that highlight collaboration and working together to create and distribute content. This collaboration not only consists of creating content together, but also discussing the content in an attempt to improve it collaboratively and to come to a shared understanding of it. Thus, social media are built upon a fundamental characteristic of Web 2.0: they are sites for harnessing collective intelligence (O’Reilly & Battelle, 2009). Many examples of social media exist (e. g., Digg, Facebook, Youtube, Flickr), but one that holds great promise as a social medium for information is Twitter (<http://www.twitter.com>). Twitter is a micro-blogging service that began in March of 2006 ([twitter.com](http://twitter.com)).

The presence of risk raises an important issue for the consumption of social media. Often the front lines of information come from eyewitnesses who are reporting on very recent events. In many cases, even traditional mass media sources such as major news outlets glean information from these sources prior to breaking news and providing information. Technological challenges in areas afflicted by crises (i.e., down satellite connections, etc.) may slow official news correspondent reports, but social media reports may be much more swiftly distributed. For example, during the January 2010 Haitian earthquake, social media played a key role in disseminating information about this tragedy (Bunz, 2010). As Sutton, Palen, and Shklovski (2008) suggest, social media are gaining prominence as an information source in disaster and risk time even though the accuracy of the information shared through these channel is often unclear. This makes it imperative to learn more about how people evaluate the information they consume on social media websites, especially judgments of the credibility of this information.

Perceived source credibility has been defined as “judgments made by a perceiver . . . concerning the believability of a communicator” (O’Keefe, 1990, p. 181). Although there is debate about the precise factor-structure of source credibility (see Cronkhite & Liska, 1976), one factor structure commonly found includes three dimensions of source credibility: expertise/competence (i. e., the degree to which

a perceiver believes a sender to know the truth), trustworthiness (i. e., the degree to which a perceiver believes a sender will tell the truth as he or she knows it), and goodwill (i. e., the degree to which a perceiver believes a sender has his or her best interests at heart.)

Perceived source credibility becomes an increasingly important variable to examine within social media, especially in terms of crisis and risk information. This is because with the increasing amount of information available through newer channels, the gatekeeping function seems to shift away from producers of content and onto consumers of that content (Haas & Wearden, 2003). First conceptualized and coined by Lewin (1947), and applied to the study of news by White (1950), gatekeeping is the process through which content creators decide what stories will be covered and reported, and thus, what information is released to consumers. Traditionally there are many people who act as gatekeepers, including journalists, editors, and possibly even advertisers and owners (Shoemaker & Vos, 2009). Along the way, these gatekeepers are assumed to be checking information for veracity, and can be an important part in the process of ensuring the credibility of that information (Salcito, 2009), and are likely perceived to be doing so by the public (Reese & Ballinger, 2001).

The continued growth of new media has meant that information consumers are now far less beholden to what passes through traditional gatekeepers and are able to bypass gatekeepers altogether and turn directly to primary information sources, many of which are information consumers themselves. Because information provided in newer channels often lacks professional gatekeepers to check content, and thus, lacks some of the traditional markers used to determine source credibility, consumers become more responsible for making decisions about the credibility of information online. Therefore in new media environments the gates are now located not only with the information providers but also with the information consumers, who in the new media environment are acting as their own gatekeepers (Kovach & Rosenstiel, 1999). This change has created a shift from the traditional notion of “gatekeeping” to what Bruns (2008) has referred to as “gatewatching.” Gatewatchers are unable to control the gates through which information passes, but instead keep a constant eye at the gates, and pass what flows through those gates onto others who then make the choice about the topic relevance and usefulness. Therefore gatewatchers fundamentally promote or diffuse information by making sources or stories known to others in the new media environment. Rather than publishing unique information, they make others’ information known and add to it. This can be seen in environments such as Facebook when a user publishes a link and then comments on it, and similarly in Twitter.com where one does the same thing or where the user reposts a link. In many respects, this is a hallmark of social media in general; cocreation of content. This notion of “gatewatching” is echoed by Sundar (2008), who stated “The digital media universe thus presents a dual challenge: (1) the overload of information, entertainment, and other offerings that constantly need organizing and (2) the lack of assurance of any uniformity in content quality, which necessitates a continual monitoring of credibility on the part of users” (p. 77).

It is important to consider that credibility is a perception, and thus is not a quality inherent within a channel or source itself (Fogg & Tseng, 1999). Therefore, many things can impact the perceived credibility of online materials (Metzger, Flanagan, Eyal, Lemus, & McCann, 2003). One model created to articulate and explain the process of making credibility judgments in online settings, and thus a useful framework for explaining ways in which consumers may enact their own personal process of gatekeeping with this type of information, is the MAIN model (Sundar, 2008).

### **The MAIN Model and Recency of Updates**

The MAIN model (Sundar, 2008) describes technological affordances that allow people to heuristically process cues when making judgments about the credibility of an online source. According to the model, system-generated pieces of information known as metrics are one type of affordance which can be used

as a heuristic in making credibility judgments. One metric that may be especially heuristically appealing to people is an agency cue. Agency cues capitalize on heuristics that emphasize credibility cues that, for example, are computer- (rather than user-) generated.

One heuristic Sundar (2008) argues is often utilized is known as the *machine heuristic*, which is a shortcut through which people assign greater credibility to information that is verified or chosen by a machine or computer than by a person. People likely use this shortcut because a machine is seen as something that has no thoughts, emotions, or other biases, and therefore is perceived to be free from bias (whether or not the algorithm is actually free from bias.) This lack of perceived bias from a machine leads to a greater trust in the information provided by machines compared to the information provided by people such as editors, producers, and the like (Sundar & Nass, 2001). Similarly, this heuristic may also impact the way that consumers of online information process system-generated cues. These cues can even influence credibility judgments more strongly than the content of the message itself, depending on the degree to which such a heuristic is activated and how heuristically or peripherally a message is processed by a user. Past research exploring impression formation on Facebook has found that system-generated cues can be important determinants of social judgments about social media users (Kleck, Reese, Behnken, & Sundar, 2007; Tong, Van Der Heide, Langwell, & Walther, 2008; Utz, 2010), suggesting that system-generated cues can affect interpersonal judgments of a profile owner.

One system-generated cue that could be important for credibility judgments is the recency (or immediacy) of postings in this type of social media. As Sundar (2008) suggests, “[m]ore complex examples of autogenerated cues appear in the form of navigational aids offered by algorithms used in search-engine and aggregator sites such as Google News, which transmits cues about the relative recency of the information, among other attributes. These appear as part of—or surrounding—the central content of the site, and emit “information scent” helpful in making quick decisions about the quality of the information available for consumption” (p. 78).

Social media seem designed to cater to those who want information in real time. As Levinson (2009) has pointed out, one of Twitter’s hallmarks is the immediacy of messages. One important avenue to study is how this immediacy, or recency of updates, acts as a cue that can impact credibility. Fogg et al. (2001) found that something they call the “amateurism” of a website has the biggest impact of decreasing credibility. One of the biggest markers of “amateurism” as they present it is the speed (or recency) of updates. In fact, as they put together their amateurism scale, the two items with the biggest impact on credibility deal with recency of updates, such that updating more frequently is associated with higher credibility. As credibility is a perception, and not something inherent in the channel or website itself, there is no reason to believe that the recency of updating should not also apply to the source of the information presented on a social media site. Furthermore, if, as the machine heuristic (Sundar, 2008) suggests, information provided by a machine (or a system-generated cue) offers especially valuable credibility information because of people’s general operating heuristic that “machines don’t lie,” and when this heuristic is paired with the recency principle highlighted by Fogg et al. (2001), a strong influence on credibility judgments may exist. This leads to the first hypothesis of the current study:

H1: Recency of updating on a social media site will be positively associated with source credibility of the site’s source.

Another important concept to examine for social media and credibility is cognitive elaboration. Cognitive elaboration is demonstrated in active participation in information processing (Defleur & Ball-Rokeach, 1989). This involvement process manifests in the mental process of attention, recognition and subsequent elaboration (Greenwald & Leavitt, 1984). A central tenet of involvement is the sense

that the individual partakes in an active psychological processing of that content. Involvement can be gauged by observing several activities associated with the content. For example, talking about a webpage with others after reading it can be seen as evidence of involvement. As noted by Levy and Windhal (1984), thoughts and discussions after exposure can be seen as a positive type of audience involvement. Similar research has demonstrated that thinking about and sharing media content indicate increased involvement (Perloff, 1985). As noted by Rubin and Perse (1987), involvement “has been linked to media use motives that are grounded in the importance of the content and reflect a desire to acquire and share information” (p. 63). Moreover, opinion leaders appear to use media content for information acquisition and social utility (Lemish, 1985; Levy, 1978).

Although credibility and cognitive elaboration have not been extensively studied, a closely related concept that has been studied is issue involvement. A study by Homer and Kahle (1990) examining the effect of source expertise, time of identification of the source, and involvement on persuasion provides some insight for the current paper however. This research found a significant three-way interaction among attitudes toward the persuasive message, attitudes toward the product, and behavioral intention. The study found that under high issue involvement, the high-credibility source was superior to the low-credibility source when the source was disclosed at the beginning rather than at the end of the advertisement. Twitter provides immediate disclosure of the source (source introduced at the beginning), issue involvement and credibility should be positively related. Furthermore, Stoltenberg and Davis (1988) found that issue involvement was positively related to cognitive elaboration. Thus, the second hypothesis is as follows:

H2: Credibility will be positively associated with cognitive elaboration.

Little research examines the relationship between the heuristic value of recency and the degree of cognitive elaboration that participants engage in when confronted with different levels of recency. Although this area has not been thoroughly researched, it seems plausible that when social media messages are updated more recently, observers of those messages may be more inclined to elaborate on the messages *because of* the recency cue present in the structure of the message. Consequently one might expect a positive linear relationship between recency and cognitive elaboration. Based on this possibility, the following hypothesis is posited:

H3: There will be a positive association between recency and cognitive elaboration.

## Method

### Overview

In order to test the hypotheses offered in the current study, a 3 condition experiment was designed. A mock Twitter page for the American Heart Association was created to represent a page devoted to the dissemination of information regarding heart disease. Participants viewed the Twitter page, and then responded to measures of cognitive elaboration (Perse, 1990) and source credibility (McCroskey & Teven, 1999).

### Participants

The 181 participants in this study came from introductory communication classes at a large university in the Mid-Atlantic region of the United States. Course credit was given for participation.



Figure 1 Sample mock Twitter page used in study (moderately recent update)

## Materials

Participants were asked to view one of three mock Twitter pages (see Figure 1 for an example). The pages were designed to appear as if the user was attempting to disseminate information and recent updates about heart disease. The page was made to appear as one from the American Heart Association for two reasons: First, heart disease is a topic/page that participants were unlikely to be familiar with, and thus, it was less likely that participants would have seen the actual page and would realize that this was a fake page. Second, the assumption was made that an “official” page associated with the topic

would be more realistic in terms of fast updates. The three pages represented three different levels of update recency: fast (most recent post approximately 1 minute ago,  $n = 63$ ), medium (most recent post approximately 1 hour ago,  $n = 56$ ), and slow (most recent post approximately 1 day ago,  $n = 62$ ).

### **Instrumentation**

After viewing the mock Twitter page, participants were asked to respond to two measures: one for cognitive elaboration (Perse, 1990) and one for source credibility (McCroskey & Teven, 1999).

Cognitive elaboration was measured using a version of Perse's (1990) five-item measure, modified to reflect the previously viewed Twitter page. Using a five-point response scale (5 = strongly agree, 1 = strongly disagree), people reported their level of agreement with each item (i.e., When I looked at this page, I thought about it over and over again). All five items formed a unidimensional solution with acceptable reliability ( $\alpha = .68$ ), so all five items were averaged to create an elaboration index.

McCroskey and Teven's (1999) source credibility measure contains three separate constructs: competence, goodwill, and trustworthiness. Each is measured with six separate semantic differential type items, anchored with two antonyms (e.g., moral-immoral) and including a seven point response scale ranging from 1 to 7. All six items measuring competence (e.g., untrained-trained) formed a unidimensional solution with acceptable reliability ( $\alpha = .86$ ), so all six items were averaged to create a competence index. After removal of one item (self-centered-not self-centered) the items measuring goodwill formed a unidimensional solution with acceptable reliability ( $\alpha = .72$ ), so the remaining five items were averaged to create a goodwill index. All six items measuring trustworthiness (e.g., untrustworthy-trustworthy) formed a unidimensional solution with acceptable reliability ( $\alpha = .84$ ), so all six items were averaged to create a trustworthiness index. Moreover, the three unidimensional solutions for the three factors of McCroskey and Teven's credibility measure formed a second-order unidimensional solution on an overall credibility judgment suggesting that the 17 remaining items in the scale could be averaged to form an overall credibility judgment with acceptable reliability ( $\alpha = .85$ ).

### **Procedure**

Participants were informed about the research opportunity in class. They were instructed to go to a website designed for the research study. Participants went to the website, and read the informed consent. After clicking on a button called "Begin Study," they were directed to a program that randomly assigned participants to view one of the three mock Twitter pages. After each participant had viewed the page, they were instructed to click on another link that sent them to the questionnaire. Once they completed the questionnaire, they clicked on another link that sent them to a separate page, in order to enter their names. This ensured participant's names were kept separate from their responses.

### **Results**

Hypothesis 1 predicted that recency of updating on a social media page would be positively associated with source credibility for the page's owner. To test this hypothesis, three planned contrast analyses assessed whether the data displayed a linear relationship between recency of updates and each of the three dimensions of source credibility (see Table 1 for descriptive statistics for each of the three credibility measures). The results of the planned contrast analysis for competence suggested that the linear pattern predicted between recency and competence was not evident in the data,  $t(171) = 0.188$ ,  $p = .426$  (one-tailed). Additionally, neither trustworthiness,  $t(176) = 0.783$ ,  $p = .218$  (one-tailed), nor goodwill,  $t(176) = 0.673$ ,  $p = .251$  (one-tailed), displayed the expected pattern. Moreover, the

**Table 1** Descriptive Statistics of Credibility by Condition [means and (SD)]

	Competence	Goodwill	Trustworthiness
Fast Updates	4.95 (.97)	4.83 (.97)	5.09 (.92)
Mid Updates	4.70 (1.17)	4.54 (1.07)	4.74 (.99)
Slow Updates	4.92 (1.13)	4.71 (.81)	4.96 (.97)

**Table 2** Descriptive Statistics of Cognitive Elaborations by Conditions [means and (SD)]

	Cognitive Elaboration
Fast Updates	2.98 (.61)
Mid Updates	2.89 (.66)
Slow Updates	2.78 (.74)

predicted linear pattern was not consistent with the gestalt credibility measure,  $t(178) = 0.573$ ,  $p = .284$  (one-tailed). Thus, the data were not consistent with hypothesis 1.

Hypothesis 2 predicted a positive association between credibility and cognitive elaboration. To test this hypothesis, the bivariate correlations between cognitive elaboration and each of the three credibility measures were analyzed. The correlations between elaboration and competence [ $r(172) = .289$ ,  $p < .001$ ], elaboration and goodwill [ $r(177) = .293$ ,  $p < .001$ ], and elaboration and trustworthiness [ $r(177) = .328$ ,  $p < .001$ ] were all statistically significant. The gestalt credibility measure was also positively associated with cognitive elaboration,  $r(179) = .342$ ,  $p < .001$ . Thus the data were consistent with hypothesis 2.

Hypothesis 3 predicted that a positive relationship would exist between recency of updates and cognitive elaboration. To test this hypothesis, a planned contrast analysis evaluated whether there were significant linear differences in measures of cognitive elaboration among each of the three experimental conditions such that the fastest updates elicited the most elaboration, etc. A contrast analysis suggested that a linear pattern of the sort suggested above was consistent with the data,  $t(178) = 1.692$ ,  $p = .046$  (one-tailed),  $\eta^2 = .016$ . (See Table 2 for descriptive statistics). Thus, it seems that recency of updates does have a positive linear relationship with cognitive elaboration, and the data is consistent with hypothesis 3.

### Post hoc analyses

The results of the hypothesis tests suggested that a possible mediation effect between recency of updates and credibility measures was present in the data. The data seemed, at a descriptive level, to suggest that recency of updates indirectly affected credibility judgments through cognitive elaboration. Consequently, a path analysis evaluated the possibility that the effect of recency of updates on credibility was mediated by the amount of cognitive elaboration in which a participant was engaged. The data were consistent with this mediational model,  $\chi^2(1, N = 181) < 0.01$ ,  $p > .99$ , CFI  $> .99$ .

### Discussion

The current study was designed to examine the impact that the recency/speed of updates on a social media page had on judgments of source credibility and the amount of cognitive elaboration a viewer



had after exposure to the page. Specifically, participants looked at a Twitter page about heart disease in one of three recency conditions, and then responded to measures of cognitive elaboration (Perse, 1990) and source credibility (McCrosky & Tevern, 1999). Data are consistent with the notion that recency of updates impacted cognitive elaboration, which in turn impacted source credibility. These findings, as well as some limitations and directions for future research are discussed in more detail below.

### **Study Findings**

The current study predicted that recency of updating would have a positive linear effect on perceived source credibility such that faster updates would lead to increased source credibility. The data showed that this linear effect did not occur for any of the three factors of source credibility, nor did it occur for the gestalt factor of overall credibility. However, this nonsignificant finding is qualified by the findings for hypothesis two and three and a post hoc model test.

In this study, a positive relationship between recency of updates on a Twitter page and the cognitive elaboration that viewers of that page would partake in was hypothesized and found such that faster updates were associated with greater cognitive elaboration. The current research also predicted a positive relationship between credibility and cognitive elaboration. Significant correlations were found between cognitive elaboration and each of the individual factors of source credibility and the gestalt credibility measure. Thus the data were consistent with this prediction as well. Based upon these findings, a post hoc model predicting that faster updates would lead to increased cognitive elaboration, and increased elaboration would lead to increased source credibility was tested. The data were consistent with this post hoc model.

The findings suggest that recency of updates might not have a direct impact on source credibility, but instead, that cognitive elaboration is a mediator in the relationship between recency of updates and credibility. This suggests that cognitive elaboration is an important variable to consider in future studies of source credibility. It also suggests that Sundar's (2008) notion of the machine heuristic may operate in part because system-generated cues can create a situation that consumers of information need to think more about, and this thinking leads to higher judgments of credibility.

These data also suggest that there are heuristic cues that people attend to when making credibility judgments about information presented through social media. The immediacy of updating that is a hallmark of Twitter (Levinson, 2009) is likely a major reason this channel is growing in use for informational purposes, including under situations of risk and crisis. The changing nature of risks and crises has contributed to concerns about the best ways information about them can be obtained, and to accomplish this goal, people are apparently turning to Twitter and other social media to share information, react to the situation, and rally support, as other examples in this paper suggest. As new technologies allow the public to obtain information faster and under circumstances that even a few years ago were virtually impossible, use of such new technologies may be another direction for increased future research.

### **Limitations and Future Directions**

Perhaps the biggest limitation is the small effect size of the linear relationship between recency of updates and cognitive elaboration. Even though the relationship was statistically significant, the effect size is small. One possible reason (and potential limitation for the study) is the type of information used in the mock Twitter pages. Although heart disease is a major risk, it is not one that inherently requires very recent updates. This could be a major reason that hypothesis one was not supported. Future studies examining a topic that requires faster updates might see an increased effect size between recency and cognitive elaboration. A more urgent topic might also increase the direct effect of recency on credibility, as a topic that requires fast updates (such as a crisis event) is likely to be more relevant

and involving for people searching for information about the topic. However, conducting the necessary study to examine this will prove difficult. It will seemingly require manipulating a “crisis” event that will be believable enough to convince people it is a crisis while being ethical enough not to send them into a panic. Alternatively, it will require examination of social media and responses to it as a crisis unfolds in a more natural setting. Notably, this increases the importance of what was found in this study, as recency of updates was found to have a direct effect on cognitive elaboration and an indirect effect on credibility even for a topic where recency should not necessarily matter. Thus, future studies can include this recency of updating as an important concept to study, and can more completely examine issues of topic and relevance in these studies.

A similar limitation of the current study is the sample used. College students were used for this research in part because they are heavy users of social media. However, the topic chosen for our mock Twitter page, heart disease, is possibly not one that students felt personal relevance toward. This could have severely limited the participants’ involvement with the topic. It is possible that future research, using topics with more personal relevance, may result in different findings, especially in regard to the effects sizes found.

One other potential limitation of the current study is the cognitive elaboration scale (Perse, 1990) utilized. First, although the reliability of the scale was acceptable ( $\alpha = .68$ ), it was relatively low. However, this actually suggests that relationships in the current study may be stronger than reported, as low reliabilities cause underestimation of relationships in simple correlation and regression analyses (Osborne & Waters, 2002). One reason the relatively low reliability may have occurred is that this is a general scale, measuring general ideas of thinking. It would be interesting for future research to examine what specific thoughts the recency of updating leads to, and what specific thoughts lead to credibility judgments. For example, it may be that thinking more about the content of the social media page may lead to increased credibility, and thinking more about the heuristic cue itself may actually decrease it. This is speculation, and future research would be necessary to test this possibility.

The findings and questions which emerged from the data become particularly important as the use of social media continues to rise. The changing nature of risk and crisis has contributed to rising concerns about the best ways various publics can obtain information. Further research is needed on the use of social media for risk and crisis events overall. As new technologies allow the public to obtain crisis information faster and in circumstances that a few years ago seemed unlikely, the changing nature and evolving use of such new technologies may be another direction for future research. For example, even though Twitter was not designed for emergency response or crisis communication, the medium appears to be diffusing to aid in disaster response. In literature on diffusion of innovations, this is known as reinvention (Rogers, 2003), which occurs when a user makes changes to an innovation while adopting it. Understanding more about this reinvention process in the diffusion of social media for crisis communication would be very valuable research for future studies. Therefore crisis and emergency practitioners need to be open to the reinvention process and avoid the temptation to impede the process during an extreme event.

For government agencies, emergency responders, organization or individuals/celebrities that use a Twitter page to communicate to stakeholders, the findings suggest that updating information on the page is important, particularly for perceived credibility. Updating too slowly leads to decreases in credibility. Thus organizations, government agencies and others need to ensure that information is sent out via social media frequently. It may be wise for organizations to have multiple individuals with access to the account and training to provide frequent updates. Moreover it may allow other non-organizational actors to act as gatewatchers (Bruns, 2008), updating and reposting the information produced by the organization. Information diffusion by gatewatchers may also have an effect on credibility. Therefore working with and facilitating gatewatchers before a crisis erupts may also be beneficial for organizations.

## Conclusion

The current study examined how recency of updates on a social media page impacted source credibility and cognitive elaboration after exposure to the page. As social media becomes a more heavily used information source, even for things as critical as risks and crises, the gatekeeping function of that information also falls more into the hands of the page users, rather than the page creators. As such, it is important to continue learning more about this process, and learning about how and why credibility judgments are made about social media information.

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