Technology and crisis communication: Emerging themes from a pilot study of US public relations practitioners

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Abstract
The 24/7 news cycle, the Internet, and cellphone technology have changed the playing field for public relations professionals during a crisis. Consumers today are more empowered to run their own stories, without editors or producers to vet content and quality. Additionally, the time that public relations practitioners spend crafting statements and releases is shrinking, given the fact that faster information flow impacts the preparation process. Now the public relations field grapples with how to embrace and integrate new technologies. We conducted a pilot study in which an online survey was disseminated to U.S. public relations practitioners in-house and at external agencies. The 175 respondents were mostly based in New York City, the largest U.S. media market, but represented a wide variety of industries. Questions were designed to elicit responses about the relationships between technology and crisis communication. The research fills a gap in literature on current technological applications in crisis communication plans and implementation by public relations practitioners, and captures trends in the industry regarding technological innovation and crisis communication.

Introduction
New technologies have undoubtedly affected how crisis communication is conducted internally and externally. Publics today are empowered with text messaging, blogging, tweets, and cellphone cameras and videos to share their voices instantaneously during a crisis. According to Coombs (2007), many individuals involved in a crisis experience the traumatic event “through the news media and the Internet” (p. 20), making it essential that public relations practitioners, whether they represent a private or publicly held company, non-profit or government entity, or a public figure, evaluate their crisis communication strategy to adjust to the rapidly evolving digital world. This study examines the application of new technology to crisis communication from the perspective of practitioners, filling a gap in the literature on crisis planning and implementation. The information shared by practitioners will benefit the scholarly community by expanding knowledge and contributing to conversations regarding the complexity of technological innovations, media relations, and crisis communication in an increasingly wired society.

Before a crisis occurs, a public relations practitioner is encouraged to engage in the following preventative strategies: (1) identify potential triggers for crises, (2) assess organisational risks, and (3) craft messages to audiences that reinforce the reputation of the organisation (Coombs, 2007). During a crisis, practitioners are responsible for designing and disseminating messages regarding the specifics of the crisis, while trying to contain and minimise damage to the organisation and maintain trusting relationships with publics. Timely crisis communication is important to protect the image of an organisation. Doorley and Garcia (2007) argue that “whether a company survives a crisis with its reputation, operations, and financial condition intact is determined less by the severity of the crisis—the underlying event—than by the timeliness and quality of its response to the crisis” (p. 327). This process of crafting messages continues after the crisis has ended in order to strengthen relationships with key stakeholders. Rapid acceleration in technological growth means there are now many more options for
and influences on the ways public relations practitioners can communicate during each phase of a crisis.

Since the 1980s, the range of communication options offered not only to practitioners, but to the general public worldwide has exploded (Kotcher, 1992). The 24/7 news cycle introduced by Cable News Network (CNN) in the USA in 1980 even then changed the playing field during a crisis for the practice of public relations (Seitel, 2007; Turner, 2009). This television cable format presented fresh news with a never-before-experienced frequency which required public relations practitioners to respond more quickly to a CNN reporter seeking an update that would air almost immediately and be repeated nonstop. CNN has also been credited with “the rise of television news around the world” (Seitel, 2007, p. 203) and spawned all-news programming on CNBC, MSNBC, Fox News, and Bloomberg. Before 24/7 news on television and the Internet, public relations professionals relied on communicating with publics by distributing updates by telephone or mail, and setting up call centres, public meetings, and press conferences. Mainstream print and broadcast media outlets played a prominent role in reaching the mass public with interpretations of a crisis story. With the rise of the 24-hour news cycle, the hours spent crafting carefully written statements and press releases approved by multiple parties were forced to shrink dramatically.

The available response time and the speed of innovation accelerated again in the 1990s with more sophisticated electronic mail applications, World Wide Web (Sallot, Porter, & Acosta-Alzuru, 2004), webcams, Short Message Service (SMS), Netscape Navigator, Yahoo, Windows Internet Explorer, Google, and Real Simple Syndication (RSS). According to Fearn-Banks (2011), “The difference between crafting messages for more traditional methods of communication and crafting messages for social media is the speed at which one can communicate information and misinformation” (p. 59). The Internet “accelerates and amplifies public opinion like nothing that has come before it” (Schiller, 2007, p. 16). Bucher (2002), in an online article, argues that “free accessibility, interactivity, globality, and connectivity of personal, economic, political and media communication have all led to a loss of journalism control of the information market” (para. 1). Bucher described the Internet as “the most disembodied medium” without limitations of space, time, roles of communicators and participants, and limitations of content. Jefferson (2006) examined online communication from the September 11, 2001 attacks in the United States, the Indian Ocean tsunami, and Hurricane Katrina, noting how the Web provided “a shared clearinghouse of disaster information,” particularly with the speed of unfiltered blogs for updates, influencing crisis communication. She concluded that the challenge will be “to combine information flowing through ‘official’ channels, new media, and unofficial Internet bloggers and observers, in such a way as to capitalise on timeliness, accuracy and completeness of the information” (p. 141).

From 2000 to 2007, major electronic and Internet launches included blogs (Kent, 2008; Sweetser & Metzgart, 2007; Thelwall & Stuart, 2007), Wikipedia, Second Life, MySpace, Facebook, Wikinews, Flickr, iPod, YouTube, Twitter, iPhone, and mobile phone cameras. These newer technologies have blurred boundaries between the phases of a crisis, as well as the boundaries between practitioners and publics. For example, Wigley and Fontenot (2010) argue, “because of the nature of the new non-linear web of information, public relations practitioners often find themselves being alerted to a crisis from the media that they are supposed to be informing about it” (p. 189). Furthermore, they argue in their pilot study of the Virginia Tech shooting that ordinary citizens are being encouraged by “mainstream media news outlets … to upload pictures, stories, and videos,” thus “bypassing traditional gatekeepers which allows viewers to witness events that would otherwise be inaccessible to them or the media” (p. 187). For example, a grainy cellphone video taken by a survivor of the London subway bombing became the first public image of the disaster scene (Gough & Marlowe, 2005). CNN aired its first mobile-phone video (of the Virginia Tech shootings) in 2007 (Braiker, 2008). Social media users have

also sparked crises. A disgruntled United Airlines passenger shared his unsatisfying customer service experience on YouTube with original songs and video clips. His first video, ‘United Breaks Guitar’, has been downloaded by more than nine million viewers and is also available on iTunes (Carroll, 2011). Domino’s Pizza employees created a YouTube posting of their pranks adulterating pizzas, which forced Domino’s to quickly restore its image and react by conveying its own views on YouTube and Twitter (swifttallon, 2009). Many such examples have subsequently aired on mainstream media outlets, meaning consumers with access to the Internet have an unprecedented power to not only tell their own point of view directly to others but also to influence media agendas, without having to first find traditional media outlets to run their stories.

Professional editors or producers are often no longer present to vet content and quality. Control has also become a major issue for practitioners, as companies have “less opportunity to prepare for presenting their own versions of reality,” which is also “complicated by the sheer number of communication channels” and a “new sense of entitlement by enabling insiders and outsiders to disseminate and collect information about companies at will” (Argenti, 2006, pp. 358-59). Now the public relations field grapples with how to embrace and integrate these new technologies into their strategies and tactics for dealing with crises, both internally and externally. Eyrich, Padman, and Sweetser (2008) studied the acceptance of specific social media tools by public relations practitioners, finding that “Practitioners have clearly adopted the more established and institutional tools (email, intranet), yet they also seem very comfortable with blogs and podcasts. They are slower to integrate more technologically complicated tools that cater to a niche audience” (p. 414).

The Institute for Crisis Management (2010) reported that although the number of newsworthy business crises has dropped from 2000 to 2009, the media produced more in-depth stories on economic crises, such as financial collapses, and mainstream media were compelled to cover topics that were generated initially on the Web and by social media. The challenges associated with advances in technology in the public relations industry and the blurring of boundaries prompted us to want to better understand which technologies (traditional/new) practitioners utilise during a crisis to communicate with internal and external audiences. To this end, we conducted a pilot study to survey US public relations practitioners in-house and at external agencies, representing a wide variety of industries. The questions were disseminated by an online survey and designed to elicit responses from practitioners about technology and public relations crisis communication with internal and external audiences. Our research attempts to capture the changing nature and trends in the public relations industry regarding technological innovations and crisis communication. Specifically, we wanted answers to the following research questions:

Research question 1: Technology use
(a) What are the most common types of technology practitioners use to communicate with the media during a crisis?
(b) What types of technology do practitioners use to communicate with company employees during a crisis?
(c) What types of technology do practitioners use to communicate with external audiences/clients?

Research question 2: What technology-related factors influence communication during a crisis?

Method
We wanted to gain insider knowledge of changes and trends in crisis management and technology. Our goal is consistent with what Chesboro and Borisoff (2007) identify as common threads of qualitative research. We sought “to capture and preserve the communication and symbol-using of subjects as subjects understand and intend them” (p. 9). In addition, the results of a qualitatively based survey can “have immediate utility and/or produce direct and instant insight into ongoing social processes and outcomes” (Chesboro &
Borisoff, 2007, p. 9) related to crisis communication and technology. The challenges, however, of conducting qualitative research with this specific population include geographic distance, access to a representative sampling of practitioners in-house and externally across many industries, time and money constraints for both researchers and participants, and data analysis (Mann & Stewart, 2000; Wright, 2006). We needed a methodology that would account for these challenges. Wright (2006), and Mann and Stewart (2000), argued in favour of using computer-mediated communication (CMC) in the form of a standardised on-line survey. We chose to create and send our questions through the authoring software SurveyMonkey®. Given the large and broad population of practitioners across industries that we were trying to reach, calling them or conducting face-to-face interviews (either individually or in focus groups) was not logistically and financially feasible.

The survey contained 22 questions, including a variety of multiple choice and open-ended questions. The closed-ended questions were primarily demographic in nature (i.e. type of company, years of experience, title, types of technology). The open-ended questions were designed to elicit more specific information about participants’ perspectives on changes in technology, how technology has affected how they manage crisis situations, trends they have observed in crisis communication, their definition of digital crisis communication, and other general comments.

Consistent with the ethical concerns about privacy, confidentiality, and informed consent raised by Eysenbach and Till (2001) in connection with conducting qualitative research on the Internet, we secured approval from our college’s Human Subjects Review Board (HSRB). Risks were identified as minimal in our HSRB application and limited to sharing participants’ knowledge about crisis communication and technology. Our application included the option for participants to refuse to complete the survey or skip any questions that they felt uncomfortable answering. Once we were approved, we began to compile a list of potential participants. The risks and option to refuse participation were incorporated into the introductory paragraph in the survey as part of the consent form.

Participants

All subjects involved in this study were public relations or communication management staff at corporations, government entities, non-profits, or public relations agencies. Names of agencies and corporate public relations departments were generated from PR Week: The press & public relations handbook 2008, O'Dwyer's directory of public relations firms 2008 (online edition) and members of the Public Relations Society of America (online lists of chapter members available without chapter membership).

These publications had the most up-to-date contact information, including names of agencies, employee contacts and their titles, email addresses, phone numbers, and company websites. This information was organised by industry (i.e. cosmetics, automotive, hotel and hospitality management). If email addresses of public relations professionals were not listed, we searched the company's website. For the in-house public relations staff, a random sample of companies was selected from industries which were most likely to encounter crises, spanning a broad spectrum of corporations and non-profits in diverse sectors.

In total 4,343 email addresses were generated. Despite having the most current information, some agencies had merged or were defunct and some listings had incorrect or outdated URLs. An email requesting the voluntary participation of subjects was sent to these addresses. Of that total, 133 responded to the questionnaire, 435 bounced back due to invalid email addresses, and 27 opted out. After two months, we sent a reminder message and the survey closed with a total of 175 respondents. Here is a breakdown of the respondents’ demographics:

- 95% work within the United States of America, with most of the respondents being from New York, the largest media market in the United States.
- 65% worked for public relations/public affairs agencies. The remainder worked in...
advertising/IMC agencies, in-house public relations/corporate communications/marketing departments, publicly or privately held companies, government entities, independent consultancies, and other non-profit organisations, primarily representing the following industries: (a) charities and non-profits; (b) healthcare, medical, and pharmaceutical; (c) business products and services; and (d) consumer products and services.

- 33.9% identified themselves as CEOs/presidents, 20% as managers, and 20.6% as communication officers, executive assistants, directors of corporate public relations, consultants, and partners/owners.
- 67% had between 10 and 30 years of experience in the public relations field.

A majority of participants had personally handled a crisis situation, the most common being acts of nature (earthquakes, floods, and hurricanes) and unintentional crises (accidents, product recalls, and business failures).

**Data analysis**

Given that our method was qualitative in nature, we required a qualitative framework of analysis as well as analytical tools that would allow us as researchers to “think and feel [our] way through the process” (Corbin & Strauss, 2008, p. xi). We decided to draw from Corbin and Strauss’ (2008) set of analytic techniques in qualitative research, more specifically the following coding tools: (1) Asking questions; (2) Making comparisons; (3) Identifying the various words used and meanings associated with particular words; (4) Contextual factors; and (5) Sensitivity—in terms of drawing upon our personal experiences as academician and a former practitioner, a current academic, and an international graduate student.

The data analysis started at the micro or detail level by employing the tools above, individually. We began the process by asking “What are the most common responses?” to each closed-ended question. In terms of the types of technology used to communicate with the media during a crisis, participants checked in order of frequency:

1. Email distribution of releases/statements
2. News rooms/statements on websites
3. PRNewswire or other wire services to disseminate releases/statements
4. Voice mail.

Newer technologies such as text messaging, webcasts, and podcasts represented less than 17%.

By contrast, when asked about the types of technology used to communicate directly with the company’s employees and/or clients’ employees during a crisis, the respondents chose in order of frequency:

1. Telephone conference calls
2. Email
3. Faxes
4. Company website
5. Cellphones

Similarly, when communicating with external publics who would be directly affected by a crisis, respondents checked the following tools as the most frequent types of technologies used, in order of frequency:

1. New media (podcasts, blogs)
2. Email, social networking sites, toll-free hot lines, and chat rooms
3. Text messaging and webcasts.

We repeated this analysis process within the compiled responses from open-ended questions, individually. In addition to comparing the most common responses, each of us identified various words and the meanings associated with those words; for example, speed. Then, we collectively shared our interpretations, which represented the macro analysis or big picture. This resulted in four distinct themes emerging from the explanations offered by participants. Each theme is explored further below, in the results section.

**Results**

*Emergent themes*

**Theme one: Speed: “The expectation for instant answers which don’t always operate at the speed of communication”**

The participants in this study, when using the word speed, were not referring to the physical rate at which information travels over fibre optic cables. One participant explained how technology affects speed: “it compresses
the time available to respond and frame communications”. This impacts the ability of public relations practitioners to package information, disseminate crafted messages, and respond as a crisis unfolds. Furthermore, speed was referenced in the context of blurring the traditional lines and demarcations of the typical phases of crises in the media (pre, during, post) from various respondents:

- “Everyone with a cell/camera phone becomes a reporter, disseminator of news. Instant messages get information out immediately without any filters or editors.”
- “Rumours and bad information can spiral out faster than we can manage it”, and “the speed with which consumers and the public can communicate in a crisis is not yet matched by how quickly management teams, first responders, and lawyers can respond with communication in a crisis.”

In terms of post-crisis communications, a respondent stated:

When a problem happens in any medium, it can take days/weeks/months to correct depending on how quickly and comprehensively it is disseminated and by whom. On the other hand, news media tip you off to problems that are coming. So, it’s a bit of a toss-up.

This last comment is salient in terms of the ways that speedy communication can create both threats and opportunities, a second theme.

Theme two: Threats and opportunities (yes and no)

The most common threat perceived by participants as associated with the speed of technology is typified by one individual’s response, that “incorrect or partial information [is] disseminated without context, facts, or disclaimers”. Participants described the lack of control that ensues when trying to manage interpretations as a shifting informational landscape. Another participant expressed a similar sentiment:

The new technology certainly has speeded up the delivery of information; however, because of the lack of filters and lack of reporting/journalism experience or training for most bloggers and message board participants, the information being disseminated often can be inaccurate, misleading, or otherwise erroneous. And, even if accurate, it may lack perception and historical perspective that can be crucial to the understanding of information or commentary being presented.

Others described how “instant misinformation make[s] small problems into crises, and crises into disasters”, and how the 24/7 news cycle is a problem, “especially when you are trying to target an audience, and you don’t want employees to learn from the media about an emergency at the company”. The end result is that practitioners:

No longer have the ‘luxury’ of waiting a bit to gather all the pertinent information before issuing some kind of response or statement or taking action. Audiences want instant gratification. False statements and rumours can quickly spread, and clients often need to make an almost immediate response, even a preliminary one, to halt the speed of inaccurate information.

While these consequences are considered threats by some, others indicated that the very problems with technologies can be used to a practitioner's advantage. Consider the following responses:

- “Social media and consumer-generated content have created both threats and opportunities. The biggest challenge is getting clients to understand and embrace this change.”
- “New technology allows immediate dissemination of material, without time filters, without interim gatekeepers, without spin from critics.”
- “It is considerably easier to keep watch on what is being issued by the news media and what targeted audiences are saying about the situation.”
- “We can communicate more effectively on the front end to expedite leadership briefings and key message development. On the message delivery side, we have the ability to communicate with targeted audiences of any size from one to millions
within the time it takes to make a few keystrokes.”

The indicator for whether something is perceived as a threat or opportunity is directly tied to where the participants are on the technology continuum, the third theme.

**Theme three: A continuum of technology use: None=“The meek and the timid” to New=“Blogosphere”**

The next theme that emerged, technology use, can be understood as a continuum. On one end of the continuum are practitioners who do not use or rely on technology, and according to several participants, are “of the older generation (older than 60) and simply really do not trust technology! I want to see or hear the person! I prefer person to person (I actually dislike the phone!)”. Others commented that they “don’t need to rely on mainstream media”, or “don’t use it much”, or “haven’t relied on any emerging technologies”. Others who reside in the middle of the continuum are comfortable using technology (whether traditional or new), but grapple with the challenges and problems. For example, as one participant stated: “We’ve become so reliant on technology. If a website crashes or e-mail is inoperable, we’re severely limited in our ability to respond. We must develop stop-gap measures which allow us to communicate effectively without higher technology methods.” Another participant expressed a similar concern:

There is an expectation that technology works and clearly it does not always live up to expectations. People do not receive text/e-mail because of service lapses; don’t check VMs fast enough, etc. Perhaps the most troubling is that in the midst of the adrenaline rush, people often unintentionally send a critical piece of information to the wrong person.

Finally, at the other end of the continuum are practitioners who are embracing technology, who are “staying abreast of all the technology that's out there”, and who are ensuring that “all members of the crisis team”, including the webmaster, “are properly trained in the various technologies”. For these individuals, newer technologies such as blogs, social media/networking, MySpace, and video mediums like YouTube are considered the primary means by which younger audiences or “the under 30 demographic gets its news”, and the primary means by which to communicate directly with shareholders and publics. This allows practitioners to “communicate in every medium your customer uses. Each medium has its own particular way it’s used by the customer and the message needs to be crafted to fit it.” The idea of using multiple methods of communication tailored to multiple audiences reveals the fourth theme: redundancy.

**Theme four: Redundancy: “Divergent populations need divergent outreach methods”**

Accommodating all audiences leads to a redundancy, a repetition of the same message across multiple communication channels (Fearn-Banks, 2011). Using traditional and newer forms of communication simultaneously helps individuals and agencies deal with the “plethora of formal and informal sources” in order to “have both credibility as a source and clear, relevant messaging to make an impact”, according to two respondents. Further, the idea of redundancy, according to the participants, resides in the bottom line:

- “There are more channels of communication today—the challenge of that is that no one communication vehicle reaches everyone.”
- “The more media available the better the communications. Yes, more to manage, more that can go wrong, but more ways to get the truth out.”
- “The Internet, text messaging, and social networking have revolutionised mass communication in virtually every way. They must all be accounted for in any and every mass communication effort.”
- “New technologies outpace traditional media ... consistently and fast response is critical and now more than ever before, you cannot rely upon the mainstream media to tell your story. You must go directly to your stakeholders via any means possible—direct communication, electronic, advertising, etc.”
Technical applications in crisis communication

One additional theme that emerged came from additional information that the participants shared. This last optional question invited any comments on technical applications in crisis communications, to which 25 responded. A total of 19 participants expressed either positive feedback on the impact of technology in crisis communication as a benefit in reaching more people faster during a crisis or acceptance of the importance of adapting technology in crisis planning. The word ‘tool’ was used frequently and some respondents cautioned that technology is a “tool of communications”, one that cannot “think for us” or “replace a good plan”. One respondent commented, “New media will be old someday” and that public relations professionals handling a crisis “need to pursue all likely paths to speak to key target audiences and those that they influence”.

Less positive open-ended commentary about technology was reflected by six respondents, who expressed concerns about lack of trust and time, inaccuracy of information, new citizen journalism (i.e. YouTube economics), and a concern about keeping non-technological solutions in the crisis communication mix, particularly when power outages reduce electronic communiqués. One respondent explained the ‘speed’ concept from a client-relationship standpoint: “Many clients have internal barriers (legal, bureaucratic, cultural) that inhibit real-time response, allowing a crisis to intensify without appropriate responses.”

Discussion and conclusion

We recognise that given the small percentage of respondents and the technical difficulties we encountered trying to contact a large representative sample of public relations practitioners in the US, that this is a pilot study and exploratory in nature. We are not attempting to generalise to a larger population; rather, we are merely trying to interpret the responses from this set of participants. Were we to conduct this study again, we would consider a briefer quantitatively designed survey to potentially increase the response rate due to the time restraints of professionals in the public relations industry. Another consideration would be to conduct interviews with a smaller population of practitioners who have had extensive experience in crisis communication and would be willing to invest time in a dialogue.

However, the responses from the 175 public relations practitioners who participated acknowledged that technology has had a significant impact on crisis communication. The 24/7 news cycle, the Internet, and cellphones are perceived to have changed the playing field during a crisis for public relations professionals, with shrinking time, less control of content, consumer empowerment, diminishing power of mainstream media, and evolution of new technology to reach multiple internal and external audiences simultaneously on email, websites, blogs, micro blogs, photo/video sharing sites, and social networking sites, such as Facebook.

Each of these changes, articulated by the participants, now exists in varying degrees on a continuum, an insight that few studies have been able to capture. The three themes of speed, the dual threat and opportunity of technology, and redundancy are interconnected and interrelated. Embracing and integrating new technology requires that a practitioner not only understand where he or she is on each of the continuums, but also understand the complex relationships that exist between the continuums. As speed increases, so does the possibility of threat or opportunity. As the threat or opportunity encroaches, so too does the ability of a practitioner to keep up with the most current or relevant channels of communication in order to reach multiple stakeholders. This understanding is necessary in order to optimise a practitioner’s (and/or an organisation’s) ability to communicate during a crisis. Private and publicly held companies, non-profits, government entities, and public figures need to adjust their crisis communication strategies to the digital world, given a growing number of people are accessing it as a source of information instead of more traditional media, particularly during a crisis.

A Pew Internet survey (2010) tracking sources of news consumption in the US revealed that 92% use multiple platforms to
retrieve news, with the Internet as the third most popular source, with 52% finding news from both online and offline sources on any given day. The survey also reflected a blend of portable, personalised, and participatory multimedia platforms, with 33% seeking news on mobile devices, 28% personalising their Internet home pages for preferred news sources and topics, and 37% posting social media messages to create news or react to existing news (Pew Research, 2010). The participants in our survey addressed the importance of utilising multiple communication platforms and adapting to evolving technology in crisis communication planning. For public relations practitioners, the necessity to communicate quickly and seamlessly to affected audiences with diverse communication tools – mainstream print and broadcast media, the Internet, social media and smart phones – will magnify as wireless Internet access from laptops and mobile phones continues to grow in popularity, enabling people to retrieve news and share opinions anywhere at any time.

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Endnotes

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2 We did not ask for individuals to identify their gender. This was outside the scope of our project.

3 In order to protect the anonymity of the participants and to ensure the confidentiality of their responses, no identifying information can be given. All quotes throughout this section are from the respondents’ answers to open-ended questions.

4 This quote, which best exemplifies the theme of speed, is from a respondent.

5 This quote, which best exemplifies the technology continuum, is from a respondent.

6 This quote, which best exemplifies the theme of redundancy, is from a respondent.