Tweeting the storm: A SCCT approach to NPOs’ Twitter communications during Hurricane Matthew

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Abstract

Hurricane Matthew, one of recent history's most devastating natural disasters, had a severe impact on parts of the Southeastern U.S. and Haiti. This research looked at how four non-profit organizations, The American Red Cross, The Salvation Army USA, Hope for Haiti, and World Vision Haiti, used Twitter to communicate crisis response strategies with the public. Guided by the SCCT, this study implemented a qualitative textual analysis of the organizations' Tweets in the pre-crisis, crisis, and post-crisis phases of the disaster. The research findings indicated a disconnect between theoretical response recommendations and Twitter communication. Recommendations for practical implications of this research included a need for greater consideration, on the part of practitioners, organizations, and others involved in crisis communication, of SCCT response recommendations, Twitter as a unique and growing communication outlet, and target audience of response strategies and crisis communication.

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Introduction

On September 28, 2016, meteorologists began tracking Hurricane Matthew, the most devastating hurricane in recent history. The storm left a path of destruction from the Caribbean to the Southeast United States. Matthew formed near the Windward Islands, on the eastern edge of the Caribbean Sea and the Atlantic Ocean, moving on to severely impact parts of Haiti, Cuba, and U.S. states of Florida, Georgia, and The Carolinas (The Weather Channel, 2016). On October 9, Matthew moved away from the U.S. coastline and was labeled post-tropical; however, the hurricane left thousands of Haitians and Americans homeless, injured, or dead in its aftermath. Throughout the crisis, residents of Haiti and the U.S. turned to the media for answers, seeking information about relief efforts during and after the storm's destruction. Through the media, organizations providing aid communicated with the public about the crisis. Haitians and Americans used social media sites, particularly Twitter, to receive information on disaster preparedness, emergency relief response, or how to help those affected. The American and Haitian publics relied on Tweets by The American Red Cross, The Salvation Army USA, Hope for Haiti, and World Vision non-profit organizations, for help or to help those in need.

The American Red Cross (ARC) and The Salvation Army were two of the largest non-profit organizations that provided information and relief during and after Hurricane Matthew. Both of these organizations' efforts were focused primarily on aiding those affected in the Southeastern U.S., where Matthew did most of its damage. The ARC is a humanitarian, non-profit organization that provides emergency assistance in the U.S., and disaster safety education. During Hurricane Matthew, The ARC provided affected areas in the southeastern U.S. with response tactics, relief, and coping education (American Red Cross, 2015). Additionally, The Salvation Army USA, which is the U.S. focused non-profit affiliate of The Salvation Army, responded to Hurricane Matthew, providing food, clothing, and comfort to those affected (The Salvation Army USA, 2017). Both The ARC and The Salvation Army USA communicated disaster response information over Twitter, keeping those affected up-to-date with preparedness and relief information, as well as sending teams to areas in the Southeastern U.S. most severely affected.

Other non-profit organizations responded to the crisis by providing relief and response communication to Haiti and those affected outside of the U.S. Hope for Haiti and World Vision Haiti were two of the largest non-profit contributors to disaster response and relief in Haiti during Hurricane Matthew. Hope for Haiti is a U.S. based non-profit organization focused on relief in affected areas in Haiti, including communication with the Haitian people to serve their needs during disasters. Similarly, World Vision Haiti, the local Haiti affiliate of World Vision International non-profit, works to build partnerships with the people of Haiti to help communities, families, and children meet immediate needs. As was the case with The ARC and The Salvation Army USA, both Hope for Haiti and World Vision Haiti used Twitter to communicate disaster preparedness and relief response communications during Hurricane Matthew. Rather than targeting the affected areas in the Southeastern U.S., as The ARC and The Salvation Army USA did, Hope for Haiti and World Vision Haiti's communication response strategies were focused on Haiti in particular.

Due to the unexpected nature of crises, particularly natural disasters like Hurricane Matthew, there is a level of uncertainty that arises in individuals, causing discomfort and a desire to reduce that discomfort (Berger, 1987). This element of uncertainty and danger causes people to reach out to media outlets and actively engage in information seeking (Brashers, *et al.,* 2000). As the public grows increasingly reliant upon mobile and social media for information during crises, social media have begun to eclipse the mass media as a dominant source of information (Heath, *et al.,* 1995). The use of social media for communication purposes during high consequence events has increased in recent years. In particular, Twitter has developed into one of the most widely used sources of news and information (Morris, *et al.,* 2010; Sin & Kim, 2013). During crises, emergency responders such as The ARC, The Salvation Army USA, Hope for Haiti, and World Vision Haiti, should include social media to communicate effectively with their intended audiences (Lachlan, *et al.,* 2016). Crisis communication focuses on responding to immediate public needs for information (Seeger, *et al.,* 2008), and given the immediacy of Twitter and its widespread accessibility, many organizations use this channel to communicate with those affected or those willing to provide aid (Coombs, 2015). The ARC, The Salvation Army USA, Hope for Haiti, and World Vision Haiti, all utilized Twitter to provide crisis response strategies to communicate with target publics during Hurricane Matthew.

Situational Crisis Communication Theory (SCCT) evolved from a number of studies that address how the nature of a crisis shapes the respective response strategy (Coombs, 2007). The matched response/crisis typology is designed to protect the organization's reputation and meet public information needs. In the case of natural disasters, such as Hurricane Matthew, there are additional concerns that are addressed by SCCT and response strategies, including public safety (Coombs & Holladay, 2002). Past research has shown that providing instructing information, information that the public needs to know in the wake of a crisis, is a necessary first step in crisis communication response strategy, prior to addressing an organization's reputation (Coombs & Holladay, 2002; Coombs, 1999; Sturges, 1994). In the case of natural disasters, instructing information may include informing the public of available shelters, letting people know where to go to receive relief supplies, or providing information on recovery after the disaster.

Benoit (1995, 1997) developed a list of 14 image restoration strategies for organizations to use in the wake of a crisis to protect and restore threats to their reputations. Image restoration is primarily focused on the content of the messages following a crisis, more so than focusing on the crisis type or crisis phases. Additionally, image restoration strategies are used to protect the reputation of a corporation following a crisis in which the corporation, or an affiliate of the corporation, is to blame for the crisis event. In the case of natural disasters, there is a very low level of crisis responsibility, or blame to be put on an organization. Therefore, Benoit's image restoration strategies were expanded upon with SCCT. This theory both includes and focuses on the crisis type, with the goal to match response strategies to the type of crisis situation (Coombs & Holladay, 2002). Coombs (2015) adapted the response strategies to fit a range of crisis types, including Hurricane Matthew. Due to the unpredictable and uncontrollable nature of natural disasters, the crisis type needed to be taken into account when looking at possible response strategies. Therefore, Coombs' adapted SCCT response strategies were chosen as the most appropriate theoretical framework for understanding natural disasters and the response strategies meant for this type of crisis.

The bulk of SCCT research has primarily relied on experimental, survey, and quantitative content analysis methods (Lachlan, *et al.,* 2014; Jin, *et al.,* 2011; Coombs, 2004; Schultz, *et al.,* 2011; Claeys, *et al.,* 2010). This work has provided an assessment of corporations using particular response strategies, primarily in the employment of reputation repair strategies following internal crises. The only prior study that addressed non-profit organizations using SCCT, found a discrepancy between response strategy recommendations and actual strategies used by The ARC. This analysis, however, used news articles rather than social media. While prior studies established a relationship between recommended response strategies and actual output, prior research is lacking in its ability to represent the actual language used in organizations' Twitter communications. This has left a gap in the literature addressing response strategies over social media, and textually analyzing those strategies in order to understand how the output aligns with suggested responses. It is also critical to understand how different types of organizations communicate following crises. Qualitative analysis, particularly textual coding used in this study, allowed for total immersion in the data, creating an understanding of nuances, details, and subtleties (Saldaña, 2009) in crisis communication, and offered the opportunity to analyze the verbatim Tweets of the four organizations included in this study. The current study's design examines differences including response strategies and recommendations, and target location and public.

Additionally, given the increase in organizations' social media presences, and the growing need to seek information through social media channels, it is important to look at how these organizations are communicating information about crises. The channel decision has become more complex due to the number of media outlets, as well as pressure from experts to switch to communication over social media (Coombs, 2015). This makes Twitter an interesting platform, since social media has become a natural part of the search for information during a crisis (Coombs, 2015). Further, given that the news media often ignore attempts to infuse organizations' sides of crises into coverage (Holladay, 2009), Twitter becomes an increasingly important venue to understand how organizations are communicating when a crisis occurs. Specifically, an examination of Tweets allows the organizational messages to be evaluated unfiltered by another media outlet.

This research took a qualitative approach to analyze the various text-based response strategies used by The ARC, The Salvation Army USA, Hope for Haiti, and World Vision Haiti over Twitter. In doing so, it makes three contributions to our understanding of crisis communication. First, although there has been prior quantitative content analysis research on mitigating crisis response strategies through Twitter and social media channels (Lachlan, *et al.,* 2014), there has not yet been extensive qualitative textual data analysis looking at organizations' crisis response strategies over social media to certain publics over Twitter. This void is particularly problematic given the increased use of Twitter and its application for quick information dissemination. Second, there has been no previous research comparing organizations' response strategies via Twitter in relation to different publics with which they were communicating. A notable exception is the research of Lachlan, et al. (2014) that used content analysis on Tweets *from* the public during Hurricane Sandy to assess differences in communications on the basis of demographics. The colleagues found very few significant differences, but concluded that Twitter is still useful in managing emergences (Lachlan, *et al.,* 2014). While demographic differences were addressed in this research, the study did not address differences between communications based on the type of organization. Third, past research looking at crisis response has primarily used experimental research design. For example, Jin, et al. (2011) used experimental methods to address publics' anticipation of how organizations should respond to a crisis, and found that preferred information form (social media, traditional media, or word-of-mouth) and source (organization in a crisis or third party) influence how the public thinks organizations should respond (Jin, *et al.,* 2011). The current study will expand previous research to address how non-profit organizations are communicating in relation to recommended response strategies outlined in Coombs (2015). This will allow for a more thorough understanding of how organizations use social media during natural disasters, and will provide guidance to improve response strategies over social media for crises in the future.

The remainder of this thesis is organized as follows. Chapter 2 presents the relevant literature including an overview of Hurricane Matthew, The ARC, The Salvation Army USA, Hope for Haiti, and World Vision Haiti. The theoretical framework that guides this study is presented as are the research questions. Chapter 3 explicates the methods employed in this study including sampling and data analysis procedures. Chapter 4 presents the results and chapter 5 offers a discussions of the findings and their contributions to theory and practice. Finally, the thesis concludes with a summary of the study and the ways in which it has contributed to crisis communication.

Literature Review

The literature review begins with an overview of the disaster of Hurricane Matthew. Next, it provides a brief explication of The ARC, The Salvation Army USA, Hope for Haiti, and World Vision Haiti. It will then discuss crisis communication and crisis response strategies and social media. The chapter concludes with an overview of the theoretical foundation for this research, Situational Crisis Communication Theory (SCCT), and the research questions that guide the study.

Hurricane Matthew and its destruction in the Atlantic

Hurricane Matthew was a long-lasting, powerful hurricane that became the first Category 5 hurricane originating in the Atlantic since 2007. Matthew formed in the aftermath of a tropical wave that pushed off the coast of Africa in late September, 2016, eventually reaching its peak intensity on September 30, with winds reaching 160 mph. Matthew made landfall in Haiti and Eastern Cuba on October 4, 2016 as a Category 4, causing severe destruction in these areas. It eventually moved to the Bahamas on October 5, reaching the Southeastern U.S. shortly thereafter. Once Matthew reached the Southeastern U.S., it moved toward the coasts of Florida, Georgia, South Carolina, and North Carolina with 75 mph winds. The following day, Matthew was declared post-tropical by the National Hurricane Center (The Weather Channel, 2016).

Matthew brought widespread damage and catastrophic loss of life. An estimated 1,600 deaths were attributed to the storm and its destruction, across parts of Haiti, Cuba, and the Southeastern U.S., making Matthew the deadliest Atlantic hurricane since 2005.

In addition, damages were estimated to have reached nearly $10.5 billion (USD), making Matthew the costliest Atlantic Hurricane since 2012 (Petkar, 2016).

The death toll in Haiti alone soared to over 800, and the aftermath has continued to affect an even larger number of lives as the reconstruction process continues. The city of Jeremie recorded nearly 80 percent of its buildings destroyed by Matthew. In the nearby province of Sud, nearly 30,000 homes were destroyed, leaving many Haitians homeless in the aftermath of the storm. In the U.S., Florida, the Carolinas, and Georgia were affected most severely, causing a small number of deaths in comparison to Haiti, but a mass amount of destruction caused by record-breaking flooding (BBC, 2016). Within the most severely affected areas, non-profit organizations provided response and relief. The ARC and The Salvation Army USA provided aid to devastated areas in the Southeastern U.S., focusing on the areas that were most severely impacted by Hurricane Matthew, such as Florida, Georgia and the Carolinas. In contrast, Hope for Haiti and World Vision Haiti have focused relief efforts on Haiti, helping this area in the aftermath of Matthew's destruction.

Given the long-lasting nature of hurricanes, and the effects it has on the devastated areas, Hurricane Matthew was an ideal choice as a natural disaster worth addressing in terms of the way the four non-profits communicated. Hurricanes take time to develop, cause destruction, and leave an aftermath, dividing the disaster into three distinct phases that were analyzed. Additionally, Hurricane Matthew moved from the Caribbean Sea up to the Atlantic and Southeastern U.S., causing destructing from place to place. This allowed for this research to address crisis phase and location as indicators of potentially different types of crisis communication. Because of this, Hurricane Matthew fit with the three crisis phases addressed in Coombs (2015), and also provided opportunity to address the potentially different types of communication by the organizations during the entirety of the disaster.

The ARC, The Salvation Army USA, Hope for Haiti, and World Vision Haiti

Historically, non-profit organizations (NPOs) from around the world have joined forces to aid those in need during crises. These efforts include education and preparedness techniques, response relief, and communications with the public to help survivors of disasters cope with the aftermath as well as to encourage others to participate in the cause to send aid to devastated areas following a disaster. Nearly 75 percent of support for NPOs comes from individual contributions, and there is a high level of competition among them for both public awareness and resources (Sisco, *et al.,* 2010). Additionally, this makes relations with the public crucial for NPOs for purposes of raising money, volunteers, staff, and supporters in order to fulfill the organization's mission (Sisco, *et al.,* 2010).

Founded in 1881 by Clara Barton, The ARC is a humanitarian organization led and supported by volunteers with a mission to provide relief to victims of disasters and to help people prevent, prepare, and respond properly to emergencies (American Red Cross, 2006). Headquartered in Washington D.C., The ARC is an independent NPO that is controlled and operated by Americans in the U.S. (Casey & Rivken, 2005). As of 2014, The ARC made nearly three billion dollars in revenue, and on average, 91 cents of every dollar goes directly to providing humanitarian aid and relief (American Red Cross, 2006).

Part of The ARC's mission is to ensure fair and equitable treatment for those in need (International Red Cross, 2005). Over the last 100 years, The ARC has become a disaster relief partner of the Federal Emergency Response Agency (FEMA), with a close governmental affiliation and an identifiable and wide-reaching brand (Groscurth, 2011). The ARC has been the focus of several controversies over the allocation of funds, making it an interesting organization of inquiry in terms of how its response strategies potentially addressed its reputation. The New York Times ran several editorial articles pertaining to questions of trust and loyalty with The ARC, which have pointed out that The ARC represents "all that is right and wrong with the American preference for federal disaster response to be carried out by private volunteers rather than government" (Groscurth, 2011).

The Salvation Army began in London in 1865 by General William Booth and his wife, Catherine, to reach the homeless. The organization made its way to the U.S. in 1879, when a young Lieutenant, Eliza Shirely, left England and held the first Salvation Army meeting in Philadelphia. Headquartered in Alexandria, Virginia, The Salvation Army USA provides disaster relief, rehabilitation programs, and food distribution. Founded on religious principles, The Salvation Army USA is a part of the Christian Church, its mission being to provide outreach, food, clothing, and comfort to those in need, particularly those fighting hunger, poverty, or addiction. The Salvation Army USA is funded entirely through donations, corporate contributions, and the sale of goods in store locations. (The Salvation Army USA, 2017). In 2015, The Salvation Army USA's revenues reached nearly three million, 30 percent of which went directly to social services.

The ARC and the Salvation Army USA helped thousands of Americans as Hurricane Matthew made landfall in the Southeastern U.S. from Florida to New England. Both U.S. focused organizations set up shelters up and down the coasts and prepared emergency response vehicles with supplies. Prior to landfall, the organizations communicated via emergency response services, including Twitter, regarding preparedness guidelines. While the death toll in the US as a result of Hurricane Matthew did not reach nearly as high of numbers as Haiti, The ARC and The Salvation Army USA are still providing relief efforts for areas with severe flooding as a result of the hurricane.

Due to controversies with The ARC in regards to transparency in the allocation of funds, there recently has been a call for organizations with non-governmental associations. This has encouraged donors to turn to NPOs assumed to give all donations directly to those in need, particularly those that are focused primarily on countries that need relief the most. Given The ARC's history in Haiti, people have pointed donors toward organizations whose relief efforts are focused on Haiti, such as Hope for Haiti and World Vision Haiti.

Hope for Haiti is a non-profit organization based out of and founded in Naples, Florida in 1990 by JoAnne Kuehner. While the origin is within the U.S., the organization itself focuses solely sending and communicating relief efforts directly to Haiti. The mission of the organization is to improve the quality of life for the Haitian people and to provide emergency relief, such as disaster relief, to this area. For over 25 years, Hope for

Haiti has partnered with existing community leaders to overcome challenges of community development and nationwide problems, and has sought to meet the needs of the Haitian people to improve their quality of life (Hope for Haiti, 2013). As of 2016, Hope for Haiti's revenue was 13 million, with 97 percent of its expenses going toward direct services. Both Hope for Haiti and World Vision Haiti are known for providing all response and relief efforts directly to those affected in Haiti (Charity Navigator, 2016).

World Vision Haiti, the local Haiti affiliate of World Vision International, is a non-profit that has built partnerships with the people of Haiti to help families affected by disaster, poverty, and hunger meet immediate needs. Beginning its work in 1959 at the Ebenezer Orphanage with a small group of volunteers, World Vision Haiti went on to found a national office in Haiti in 1978 (World Vision International, 2017). World Vision International's 2016 revenue was just over one billion, 83 percent of which goes directly to program services. Its mission is to rebuild and create sustainable solutions for the future of families and communities in Haiti, particularly following disasters. World Vision Haiti responded during and after Hurricane Matthew by providing information, supplies, and support to rebuild and recover following the disaster to the people, communities, children, and families of Haiti.

In Haiti, Hope for Haiti and World Vision Haiti provided emergency communication and relief, beginning with preventative measures prior to the hurricane's landfall in Haiti and continuing into the present, with relief efforts still ongoing in order to restore the affected areas. Both organizations worked with local rescuers and other agencies in Haiti to clear roads, set up supply stations and survey the extent of the damage done in Haiti. Given that these organizations focus specifically on Haiti, they already had a number of responders located in the country prior to the disaster, some of which had already begun participating in relief efforts immediately following the announcement of the approaching disaster. The organization continues its efforts to ship in supplies and provide relief to the people of Haiti (Stanley, 2016).

This research looks at the potential similarities and differences in the crisis communication response strategies based on the organization and the publics with which each organization is communicating over Twitter. While larger, more globally recognized non-profits can often run into controversies dealing with transparency, funds, and allocation of aid, local charities that focus on a particular country or region are often more transparent and rank higher in these areas. These differences offer an opportunity to compare the way all four organizations communicated before, during, and after Hurricane Matthew to their respective target publics.

Crisis Communication and Crisis Response Strategies

In order to understand crisis communication and response strategies, it is first important to understand the components that define a crisis, as well as the consequences that events deemed as crises can have on the various players involved. A crisis has been defined as "a significant threat to operations that can have negative consequences if not handled properly" (Coombs, 2007, pp. 1). Hermann (1963) identified three key characteristics that separate a crisis from an unpleasant occurrence: (1) surprise, (2) threat, and (3) short response time (Ulmer, *et al.,* 2015). These are necessary conditions in determining whether or not an event will be labeled a crisis. Even naturally occurring events, such as hurricanes and earthquakes, become crises only if they are unexpected or escalate to a level of intensity beyond what is predicted. Additionally, there must be some type of threat to the organization, the public, stakeholders, and/or customers in order to label an event as a crisis, and the threat must be addressed quickly (Ulmer, *et al.,* 2015). Recent research has expanded upon the initial crisis definition, and offered the following working definition of organizational crisis:

> An organizational crisis is a specific, unexpected, and non-routine event or series of events that create high levels of uncertainty and simultaneously present an organization with both opportunities for and threats to its high-priority goals (Ulmer, *et al.,* 2015).

Crisis communication is defined as "the collection, processing, and dissemination of information required to address a crisis situation" (Coombs, 2010, p. 20). Crisis communication research has primarily focused on the study of the interrelationships between crisis situations, communication strategies during crises, and the perceptions of the public (Schultz, *et al.,* 2011). In general, managing crises, including natural disasters has always included a significant communication component in the form of warnings, risk messages, evacuation notifications, and information regarding self-efficacy (Reynolds & Seeger, 2005). Historically, crisis communication has served as a spokesperson and disseminator of information during crises (Seeger, *et al.,* 1998). Crisis communication involves the sending and receiving of messages in order to lessen the negative outcome of crises and protect organizations, stakeholders or industries from damage (Coombs, 1996). Fearn-Banks (2002) suggests that crisis communication is verbal, visual and/or written interaction between an organization and its stakeholders, prior to, during and after a crisis, and in the case of natural disasters organizations are often communicating during crises to a larger public audience in order to mitigate harm. Crisis communication seeks to explain an event, identify possible consequences and negative outcomes, and provide information to help reduce harm to affected communities in an honest and prompt manner (Reynolds & Seeger, 2005).

Although crises develop unpredictably, a certain linear path in their development can be perceived and assessed (Palttala, *et al.,* 2012). Crisis communication takes into account the developmental stages of a crisis, which have traditionally been broken up into five and six stage models (Reynolds & Seeger, 2005; Moe & Pathranarkul, 2006). The simplest model includes a pre-crisis phase, during which preparation occurs, an acute or crisis phase, a dramatic event, and a post-crisis phase, when questions on cause, responsibility, and preparation for a crisis arise and are addressed by organizations (Palttala, *et al.,* 2012; Coombs, 2007). During the pre-crisis phase, communication involves preparation and prevention in the wake of a disaster or crisis. When a threat erupts into the crisis phase, different communication exigencies and audiences emerge, including an immediate threat and compressed timeframe, which requires a more direct communicative response (Palttala, *et al.,* 2012). The immediate communication needs refer to communication toward people directly affected by the crisis, and the general public, to mitigate harm and reduce uncertainty. Often using mass media, the goal is to provide information to enhance response appropriateness (Palttala, *et al.,* 2012). Without immediate communication during the crisis phase, the level of harm may actually increase as people begin to act without the certainty reduction that information-seeking provides.

Present-day crises have also affected the institutions that manage communication. Initially, governmental actors managed communication, but with new channels to communicate to publics, organizations handle much of the crisis communication. This requires a great deal of coordination within organizations to communicate effectively during crises, and also coordination among the members of the larger response organization network (Palttala, *et al.,* 2012). When organizations respond to emergencies such as natural disasters, they enter these conversations with the goal of reducing harm to those affected, while also providing information to affected areas as well as the public. As society turns to social media for crisis information, organizations have also had to use these platforms for effective communication with the public. This makes organizations' response strategies over social media of the utmost importance during a crisis, making it crucial to understand how the response strategies match the particular disaster.

Crisis communication research began by focusing on identifying crisis response strategies, in response to embarrassment and impression management. Once strategies were cultivated, the shift in crisis communication research moved to understanding how crisis response strategies should be used (Coombs & Holladay, 1996). Crisis response strategies are crucial in determining how organizations should respond to disasters. The strategies "represent the actual responses an organization uses to address a crisis" (Coombs, 2015, pp. 144). Initially, crisis response strategies were used primarily to address the potential threat that a crisis and the handling of that crisis has on an organization's reputation. Response strategies have since been adapted to include additional crisis types. Crisis response content can be divided into three sequential categories: (1) instructing information, (2) adjusting information, and (3) reputation management (Coombs, 2015). Response strategies have continuously evolved over time to fit the crisis that occurs, and organizations have used crisis response strategies in order to protect their reputation as well as to communicate effectively to the public following crises that have a public safety element such as natural disasters.

Social Media and Crisis Communication

Natural disasters and other extreme crisis situations require efficient, timely, and targeted communication efforts in order to mitigate risk and negative outcomes of such events (Spence, *et al.,* 2015). As technology continues to evolve, so too must those who use it, particularly those using it as a tool to communicate with mass audiences. The media play a key role in diffusing information during a crisis, and concerned publics often view television or internet coverage continuously as crises unfold (Ulmer, *et al.,* 2015). Given that social media has become a primary internet tool for the dissemination of information, it becomes increasingly important that organizations are communicating effectively over their social media sites. This makes social media communication efforts particularly relevant for the field of crisis communication, because of its promise to facilitate coordinated communication and response to disasters (Purohit, *et al.,* 2013).

When crises occur, there is an important issue surrounding social media and the creation of crisis communication messages. Social media outlets provide a venue to the public to report events in real time. Further, traditional mass media sources utilize information from social media sites. Several cases indicate that traditional media acquire "backchannel news," essentially secondhand news, from social media and consider it a legitimate source of information during crises (Sutton, *et al.,* 2008). Backchannel communication tools (e.g. social media) allow for dissemination of information that is not over traditional media. In this sense, backchannel communication tools provide an opportunity for the public to actively create and disseminate information separate from traditional media sources (McCarthy & Boyd, 2005). This allows for users of social media sites, such as Twitter, to be active consumers and creators of information (Sutton, *et al.,* 2008). Organizations and public agencies have increasingly used social media as platforms to rapidly share information with the public concerning preparation, coping and response, and recovery efforts following a crisis (Spence, *et al.,* 2015). Additionally, there are often technology issues related to mass media channels, such as power outages and satellite connection problems, which may slow down official news sources, making social media outlets even more important as crisis communication tools during a disaster (Spence, *et al.,* 2015). During the January 2010 Haitian earthquake, for example, social media played a key role in providing the public with information in the absence of traditional media outlets, which had been compromised by power outages during the quake (Bunz, 2010). What is less known about social media, such as Twitter, is how NPOs are using it to provide crisis response strategies.

Twitter and Crisis Communication

One of the most widely used social media sources of information is social media, such as Twitter (Morris, *et al.,* 2010; Sin & Kim, 2013). Twitter is an online social networking and microblogging service. The social media outlet was launched in 2006 and rapidly took over mainstream social media during 2008 and 2009. By 2011, the site had accumulated over 300 million users and has continued to grow. This growth suggests that Twitter is a medium in which established organizations participate frequently. Twitter provides the opportunity for two-way communication, which is the most ethical way to conduct public relations (Grunig, 1992). When communications are sent out to the public by organizations, the recipients of these messages have the opportunity to respond by mobilizing, including directly their own resources toward relief efforts (Purohit, *et al.,* 2013). Social media itself has evolved to become an interactive and collaborative platform for crisis communication, and allows for organizations to communicate directly with their designated publics in times of crisis. Twitter provides users the opportunity to post a Tweet, read, and respond to text-based messages limited to 140 characters in length, creating a multi-media platform with constant updates (Spence, *et al.,* 2015). Users can also follow public figures, corporations, and organizations in order to be entertained or informed. During crisis situations, such as natural disasters, emergency relief response organizations use Twitter to communicate with the public and inform affected areas on how to respond.

Twitter continues to evolve with changes in technology, and has constantly modified and improved its interface for user-friendliness and can be accessed using numerous applications for mobile phones, tablets, and computers. This makes it especially useful for communicating during crises, when other means such as traditional media sites or programs may be unavailable (Spence, *et al.,* 2015). As noted by Thelwall & Stuart (2007), emergency communication technologies have a role in communication throughout all phases of a crisis situation. Their research speculated that many of the new technologies being used during crises were fulfilling general, rather than personal, needs. However, individuals also look to social media to fulfill needs of emotion and connectedness following crisis events (Spence, *et al.,* 2015), and social media can often provide outlets for information to bring users together to create an online community. Both public and private agencies have an important role in creating crisis response (Lachlan, *et al*., 2016), and given the shift toward online platforms for information-seeking, Twitter was used as the platform for this analysis.

NPOs and Crisis Communication

The near ubiquitous use of social media has enhanced and increased NPOs' communication with stakeholders, volunteers, the media and the public (Waters, 2007). Previous research has shown that the public characterizes NPOs are being warm and more caring than for-profit corporations, but less competent (Aaker, *et al.,* 2012). In this sense, social media provides NPOs with the opportunity to take advantage of the sites in order to more effectively communicate and prove their competency to the public, in addition to the trust that the public already holds for NPOs over for-profit corporations. Through the combination of traditional media channels and social media channels, NPOs are able to mobilize stakeholders and volunteers, create meaningful relationships with donors, and increase their accountability and trust from the public (Saxton & Guo, 2011).

There has been little research in the area of crisis communication over Twitter and NPOs. Sisco, et al. (2010) looked at crisis communication of The ARC between 1997-2007 by analyzing news articles. This research, however, did not account for social media communication. The organizational-level Twitter research is sparse, making this a particularly interesting case when looking at the ways the organizations communicated over this platform. While there has been some research that has looked at NPOs' communications over Twitter without the aspect of a crisis, it's focus is general communication as opposed to crisis specific. For example, Lovejoy & Saxton (2012) looked at NPOs' communications over Twitter more generally, and found that social media has created hope for the organizations' communications to provide a dialogue that opens up two-way communication for an interactive, civil society. Relatedly, Briones, et al. (2011) interviewed 40 Red Cross employees and found that there is a potential for social media to build relationships between organizations and the public. While there is some research on NPOs and communication over social media, the majority of these studies do not look at crisis situations specifically. There have not been any previous studies that have addressed SCCT in relation to NPOs and their crisis response communications over social media. This research looked at NPOs *crisis* communication over Twitter, expanding the literature on NPOs and social media communication in the context of Hurricane Matthew.

Theoretical Framework: Situational Crisis Communication Theory (SCCT)

Situational Crisis Communication Theory (SCCT) seeks to develop recommendations for organizations following a crisis. Coombs developed this theory by connecting Attribution Theory, which holds that people make judgments about the cause of events or crises (Coombs, 2012), and crisis response strategies (Ulmer, *et al.,* 2015; Benoit, 1995). SCCT provides a framework for understanding how to respond to crises, and guidelines for how organizations should react in order to protect their reputations and inform the public in the wake of a crisis or disaster (Coombs, 2007). The crisis response strategies in SCCT, outlined by Coombs (2015), are matched to the nature of the crisis and the threat level the crisis has to the organization, or in the case of natural disasters, to the public as well. The response strategies match the level of responsibility and aid to victims that would be necessary in order to address the crisis and the potential threat or damage (Coombs, 2006). The crisis situation is the focal point of SCCT and determines the appropriate response strategy. SCCT notes that the potential damage from a crisis is a function of crisis responsibility and certain facts set the framework for response strategies by an organization (Coombs, 2006). After collapsing and categorizing crisis response strategy lists from the previous research of Fearn-Banks (1996), Lerbinger (1997), Marcus and Goodman (1991), and Pauchant and Mitroff (1992), Coombs (2015) used SCCT to develop a list of identified crisis types and response strategies that match the types of crises.

Three conditions are used in SCCT in order to address the threat to an organization's reputation during and after a crisis: crisis type, crisis history, and prior reputation (Coombs, 2015). Following this classification, organizations and crisis communication practitioners can select the matching necessary response strategy to best address the crisis type and reputational threat, as well as the public safety threat in the case of natural disaster type crises. As previously noted, these factors contribute to the categorization of crisis type, which have been organized into clusters. Coombs and Holladay (2002) conducted a cluster analysis that groups crisis types into three distinct categories, depending upon the crisis responsibility, and therefore the necessary strategy that is required by each different type (Coombs, 2006). The assessment of threat by the crisis is a two-step process, in which the team first identifies the crisis type, using a crisis frame to evaluate the situation (Coombs, 2004). SCCT specifies 10 crisis types/frames, illustrated in Table 1, by level of responsibility, as outlined in Coombs (2015).

Table 1

Crisis Types/Clusters by Level of Responsibility

Victim Cluster: Very little attribution of crisis responsibility
Natural disasters
Rumors
Workplace violence
Malevolence
Accidental Cluster: Low attribution of crisis responsibility
Challenges
Technical-error accidents
Technical-error product harm
Preventable Cluster: Strong attributions of crisis responsibility
Human-error accidents
Human-error product harm
Organizational misdeeds

A natural disaster falls under the victim cluster of crisis responsibility, and therefore, warrants different response strategies than subsequent clusters and levels of crisis responsibility. For natural disasters, there is very little attribution of crisis responsibility, meaning that there is a low likelihood that the organization itself will be blamed for the crisis type. Because of this, the primary goal of response strategies following a natural disaster is to inform the public.

SCCT separates instructing information from crisis response strategies. Instructing information represents the information that stakeholders and other players involved, such as the public, need and want to know after a crisis occurs (Coombs, 2006).

There are three types of instructing information: (1) crisis basics, including the basic information about what happened, (2) protection, including what those affected need to do to protect themselves from harm, and (3) correction, which includes what the organization is doing to correct the problem or prevent a repeat of the crisis (Coombs, 2006; Bergman, 1994; Coombs, 1999; Sturges, 1994). SCCT argues that instructing information is necessary following a crisis, and must be provided to those affected. Instructing information is a crucial step in the process of crisis response strategies, as the organizations must communicate instructive information to those involved, particularly stakeholders and the public affected by the crisis. Instructing information is the first of the 13 recommendations that Coombs (2015) gives when communicating after a crisis, separate from response strategies, which are the actual communication response strategies the organizations used over Twitter during the disaster.

The second step in SCCT involves assessing the reputational threat and modifying response strategies based on crisis history and prior reputation. In the case of The ARC, a prior response to the earthquake disaster in Haiti in 2010 set the stage for the current crisis and how they responded to the public following Hurricane Matthew. The current crisis, Hurricane Matthew, was a much greater reputational threat to the organization, given the crisis history and the prior reputation of The ARC in previous crises (Coombs & Holladay, 2002). For The Salvation Army USA, Hope for Haiti, and World Vision Haiti, the organizational reputations had not been previously compromised in terms of responses to crises in Haiti. Therefore, response strategies likely reflect less of an effort to address reputation than to address public safety and informing the public. Coombs

(2015) acknowledges that the focus within SCCT on the reputation of an organization may seem rather shallow in the wake of a crisis, however, the theory itself notes that people are the first priority in a crisis (Coombs, 2015). In the SCCT model (Coombs & Holladay, 2002), the key variables that control crisis response strategy are personal control (organizational control), severity, crisis responsibility, performance history, and organizational reputation. It can be noted that the stronger the potential reputational damage threat is, the more the crisis response strategy must attempt to accommodate the victim(s) (Coombs & Holladay, 2002). The crisis response manager or practitioner, i.e. an organization, must match the threat with the appropriate response strategy based on the severity and the crisis history, which both contribute to the crisis responsibility and therefore the strategies to reduce threat.

During a crisis, the public expects involved organizations to do more for the victim(s) of the crisis when the organization is held more accountable for the crisis situation (Coombs, 1995). However, this changes in the case of a natural disaster, because the crisis responsibility is low in terms of the organization and the accountability. Even so, the public may look to assign blame, thereby leading the responsibility to often fall on organizations regardless of the nature of the crisis. The response strategies should then attempt to mitigate reputational damage by communicating with the public that the organization supports and cares for those affected, and meets the publics' expectations in the way they react and respond to the crisis situation (Coombs & Holladay, 2002). Coombs (2015) used SCCT to build a list of 10 possible crisis response strategies, falling under four distinct postures: (1) Denial posture, (2) Diminishment posture, (3) Rebuilding posture, and (4) Bolstering posture (See Appendix A for full list of response strategies). For NPOs specifically, the response strategies that fall under the denial and diminishment postures are unlikely to be seen in the data. This is in part due to the fact that NPOs are seen as more warm and caring organizations than for-profit corporations (Aaker, *et al.,* 2012). Therefore, it is unlikely they need to use such strategies when communicating with the public, as the public already perceives them as more trusted than corporations. In addition, the type of crisis (natural disaster) makes denial or diminishment postures highly unlikely.

While there are 10 possible response strategies, Coombs (2015) also provides a list of 13 recommendations for response strategies when a crisis occurs (See Appendix B for full list of recommendations). The recommendations, simplified, include: (1) Provide instructing information to victims in the form of warnings or directions; (2) Provide adjusting information to victims by expressing concern and providing corrective action; (3) Use diminishment strategies for accident crises where there is no crisis history or unfavorable reputation; (4) Use diminishment strategies for victim crises when there is no crisis history or unfavorable reputation; (5) Use rebuilding strategies for accident crises when there is a crisis history or unfavorable reputations; (6) Use rebuilding strategies for preventable crises; (7) Use denial strategies for rumor crises; (8) Use denial strategies in challenges if warranted; (9) Use adjusting information in challenges when stakeholders may support the challenge; (10) Use reinforcing strategies as supplemental; (11) Use the victimage response strategy with the victim cluster; (12) Do not mix denial strategies with diminishment or rebuilding strategies; and (13) Diminishment and rebuilding strategies can be used together.

The bulk of SCCT research uses experimental, quantitative content analysis, and survey research design in order to address the response strategies that were matched with the crisis accounting for the severity of the crisis and the threat to organizations' reputations. Coombs (2004) used an experiment to examine the extent to which reputational threat of a victimization or accidental crisis increased when the organization had history in this crisis type, and found that there was a weak link between crisis history and crisis responsibility, and a strong link between crisis history and reputation of the organization (Coombs, 2004). Coombs (2011) employed survey methodology to identify if there is a match between crisis responsibility and reputation across all crisis types, and found that a moderate correlation existed across all crisis type clusters (Coombs, 2011). Coombs (2012) notes that research that assesses crisis situations, such as Coombs and Holladay (2001) that tests for a crisis situation model, has relied on basic correlations and regression analysis (Coombs, 2012). Other SCCT research includes Claeys, et al. (2010) experimental design, which found that reputational perceptions did not vary between the accidental and victim crisis types, and that organizations who use rebuilding strategies are more favorable than those that use diminishment strategies (Claeys, *et al.,* 2010). Studies that have looked at text by organizations have primarily focused on news articles or press releases rather than their social media communications. Sisco, et al. (2010) conducted a content analysis of news articles about The ARC's crisis response strategies between 1997 and 2007. Their research found that response strategies did not match the recommendations outlined in Coombs' SCCT, and that if they had, perhaps the organization would have fared better in later crises (Sisco, *et al.,* 2010). While this study did address NPOs' communications in the context of SCCT, it only looked at The ARC. The current study looked at four different NPOs in order to address potential similarities or differences in communicate strategies and recommendations used over Twitter.

There has not been any previous research that has looked at NPOs' response strategies over Twitter, using SCCT to textually code for possible types of response strategies and recommended response strategies from Coombs (2015). Looking at the data qualitatively both allows for and requires a deep reflection on the meanings and nuances of each and every datum (Saldaña, 2009). Qualitatively coding the Tweets promoted total immersion in the dataset, which quantitative content analysis studies in this area have not reached. In traditional quantitative content analysis, researchers have looked at the frequency of words or items. Saldaña (2009) argues that frequency of occurrence, or words or phrases, is not necessarily an indicator of significance in the dataset. Qualitative coding does not just count instances of communication, rather it goes a step further to understand the nuances of the data through pondering, scrutinizing, and interrogating the dataset in order to speculate, connect, and conceptualize what is actually happening. Qualitative analysis in this sought to make sense of what was occurring in the data (Saldaña, 2009).

This study aims to investigate what response strategies the organizations were using, and if any of the recommended response strategies were used when communicating with their respective publics before, during, and after Hurricane

Matthew. Given the number of Twitter users and the fact that during crises people often receive their information over Twitter, this research intends to look at the ways organizations are communicating and responding during crises over Twitter in order to both gain insight and provide possible recommendations for future response strategies, building off of Schultz, et al. (2011). The first experimental study that addressed the role of social media in crisis response strategy and communication, found that in the case of crisis communication, the medium was in fact more important than the message (Schultz, *et al.,* 2011). This provides warrant for the use of Twitter in this research, as the medium has been deemed to be an important factor in determining appropriate crisis communication. Jin, et al. (2011) also used experimental design and found that the medium choice influenced peoples' perceptions on how organizations should respond to crises (Jin, *et al.,* 2011). Although Schultz, et al. (2011) and Jin, et al. (2011) addressed Twitter as a unique medium in crisis communication, their studies were both conducted through experimental design, and did not account for the actual messages that organizations were putting out to the public. Additionally, with the exception of Sisco, et al. (2010), there has not been any prior SCCT research using NPOs rather than for-profit corporations. This study was the first study using SCCT to textually code for crisis response strategies and recommendations in Tweets by NPOs during a natural disaster crisis. This study attempted to fill current research gaps and provide recommendations for response strategies over Twitter. Based on the theoretical framework provided by SCCT, this study asks:

RQ1a: What SCCT crisis communication response strategies did The ARC, The Salvation Army USA, Hope for Haiti, and World Vision Haiti use during each crisis phase of Hurricane Matthew over Twitter?

RQ1b: Which, if any, of the 13 response strategy recommendations outlined in Coombs (2015) were used by the organizations?

RQ2: How did the response strategies differ by organization?

RQ3: How did the organizations' response strategies differ by the target location and public with which they were communicating?

RQ4: What additional response strategies, if any, were used by each of the organizations?

Method

Following Saldaña, qualitative coding was chosen as the method to answer the research questions in this study. The study involved qualitatively coding Tweets from The ARC, The Salvation Army USA, Hope for Haiti, and World Vision Haiti organizations, beginning on October 3, 2016, when Hurricane Matthew first appeared on weather tracking radar, during the crisis, and until October 31, 2016, when the last tweets of the month pertaining to Hurricane Matthew were sent out by the organizations.

Data Retrieval and Sample

Data for this research was collected directly from the organizations' Twitter pages and via the Twitter advanced search function. The initial Twitter data from The ARC and Hope for Haiti was collected during the time of Hurricane Matthew, and was accessed directly from their respective Twitter pages. After initial data immersion, it was decided to include Tweets from The Salvation Army USA and World Vision Haiti to provide a more robust data set. Tweets from The Salvation Army USA and World Vision Haiti were retrieved using the Twitter advanced search function. The dates of the Tweets analyzed for all four organizations began on October 3, 2016, when the first Tweet by any of the organizations was put out, and ended on October 31, the last day of the month when Hurricane Matthew was being discussed over Twitter. Tweets were organized by organization, chronologically. Any Tweets that were not related to Hurricane Matthew were removed. There were four Tweets removed from The ARC, no Tweets removed from Hope for Haiti, twelve Tweets removed from The Salvation Army USA, and one Tweet removed from World Vision Haiti. All additional Tweets dealt with Hurricane

Matthew and were analyzed, for a total of 2,963 words and 174 Tweets in the sample. This includes 33 Tweets and 525 words by The ARC; 92 Tweets and 1,743 words by The Salvation Army USA; 20 Tweets and 316 words by Hope for Haiti; and 29 Tweets and 379 words by World Vision Haiti.

Data Analysis

This research began with a data immersion process, followed by first cycle deductive coding using response strategies and response recommendations outlined in Coombs (2015). First cycle coding concluded with inductive coding, which sought to address additional types of response strategies that the organizations used through their Tweets. Second cycle coding was then performed on the additional response strategies to collapse the codes. Coding was the most useful method for this study because it allowed for thorough inspection into the diversity of the data, and what is being represented in the text (Richards & Morse, 2007; Saldaña, 2009).

In the first phase of data analysis, the author engaged in data immersion and pre-coding. The data immersion process allowed for an initial overview of the data to gain familiarity with the dataset, and the pre-coding process allowed for the identification of initial important information (Boyatzis, 1998; Saldaña, 2009). These steps prepared the data for coding by providing familiarity with the contents and initiating some of the first steps in the analytic process (Saldaña, 2009). Coombs (2007) divides crisis situations into three phases: (1) pre-crisis phase, (2) crisis phase, and (3) post-crisis phase. During pre-coding, the Tweets were separated into the three phases of crisis communication, to understand how each of the organizations were using response strategies during each of the three phases of a crisis. The pre-crisis phase was the shortest phase, and began on October 3, 2016, when weather radar began tracking the storm and ended on October 4, 2016, when Matthew made landfall. The crisis phase lasted from October 5, 2016 until October 8, 2016, when the hurricane was deemed post-tropical. The post-crisis phase included the aftermath of the hurricane, beginning October 9, 2016 and ending October 31, 2016. Very little communication by the organizations about Hurricane Matthew has occurred after the post-crisis phase time frame analyzed in this research, allowing for saturation by the end of analysis.

Tweets were coded manually, in place of an electronic coding program, which Basit (2003) notes is a choice dependent on the size of the project and expertise of the researcher (Saldaña, 2009). Due to the size of the dataset, manual coding was chosen as the sole method. Throughout the coding process, codes were colored differently depending on which response strategy or recommendation was present. Additionally, analytics memos were taken and a codebook was kept in order to reflect on the coding process. Past studies have recommended maintaining a reflective journal on the research project with extensive analytic memos in order to later go back and reflect on the coding process during analysis (Ezzy, 2002; Saldaña, 2009). Following data immersion and pre-coding on the dataset itself, the codebook was organized into four sections: (1) first cycle coding, including deductive coding using the Coombs (2015) possible response strategies (2) first cycle coding, including the Coombs (2015) crisis response recommendations, (3) first cycle inductive coding, which was inductive coding performed on the dataset that looked for additional responses, and (4) second cycle coding, which collapsed the additional response codes. Codes were organized in a sequential order of coding, ultimately having the codebook show instances of two of the crisis response strategy postures, three of the 10 response strategies in those postures, and instances of four of 13 response recommendations. The codebook included a description of the code, including the name of the code itself, inclusion and exclusion criteria, typical and atypical exemplars of the code, and “close, but no”, which are instances in the data that could mistakenly be assigned to the code (Saldaña, 2009). Typical and atypical exemplars were organized by organization within each code.

Next, in first cycle coding, the data was coded deductively using the 10 possible strategies (Coombs, 2015) as the framework. The 10 possible response strategies are categorized into four postures: (1) Denial posture, which includes attacking the accuser, denial, and scapegoating; (2) Diminishment posture, which includes excusing and justification; (3) Rebuilding posture, which includes compensation and apology; and (4) Bolstering posture, which includes reminding, ingratiation, and victimage. In the codebook, the response strategies that occurred in the dataset were labelled with a description, inclusion and exclusion criteria, typical and atypical exemplars, and a “close, but no” category, which includes examples that almost fit into each of the codes but actually belonged elsewhere. For the compensation response strategy, the description included Tweets in which the organization communicated about providing money or other gifts to the victims of the disaster. This included mentioning monetary or service efforts, including mentioning exact figures of donations, number of shelters, and number of volunteers. Excluded from this code were reminders to the public of the good work the organizations had done in the past, and mentioning other organizations or companies that have also worked to help with relief efforts. The ingratiation code was described as the organization praising its stakeholders, or praising those who are a part of the organization and are helping in relief efforts. This code included praising of volunteers, donors, and those helping outside of the organization but are affiliated with it, but excluded praising the organization’s work or mentioning partnerships with other organizations without noting their relief efforts. Lastly, victimage was coded and described as when the organization explains how it is also a victim of the crisis. Included in this code were instances of organizations mentioning that they were “right there with the people,” or organizations mentioning members of volunteers of the organization who were being effected by the disaster as well. Excluded from this code were instances of organizations Tweeting stories about victims outside of the organization, such as showing how a particular individual with no organization affiliation was affected.

First cycle, deductive coding also accounted for the 13 response recommendations (Coombs, 2015) to determine which (if any) of the recommendations were taken into consideration by the organizations when communicating with their respective publics. The recommendation list was reduced from 13 to three after the first analysis of the 10 response strategies found that only response strategies in the rebuilding and bolstering postures appeared during the crisis type of a natural disaster. The three recommendations were coded in this phase of data analysis:

1. Provide instructing information to all victims or potential victims in the form of warnings and directions for protecting themselves from harm.

2. Provide adjusting information to victims by expressing concern for them and providing corrective action when possible.
3. The victimage response strategy should be used only with the victim cluster.

The recommendations' descriptions in the codebook were verbatim from the recommendations listed above. The first recommendation, titled instructing information, included information about the disaster, how to prepare, how to handle the aftermath, and how to rebuild. Not included in this code were instances where the organization mentions what they are doing to help or ways to donate or help those in need. In the second recommendation, titled adjusting information, examples in the text included expressions of concern by the organization, and providing information on how to fix things/make things better. Not included in this code were instances of the organization showing how they are helping or providing information on the status of the disaster. Codebook criteria were used consistently during the coding process of the dataset. Finally, given that the crisis type was a natural disaster, which falls under the victim cluster, the appearance of codes under the victimage response strategy represented the presence of the last recommendation that was used in the dataset. The title of this recommendation was shortened to victimage response matched victim cluster.

First cycle coding concluded with inductive coding, which looked for additional communications and responses used in the Tweets by each of the organizations. This involved taking a step back from the dataset and looking at it with a fresh focus, without looking for specific words, phrases, or codes, as was the case for deductive coding. The inductive coding process was also recorded in the codebook, and was coded for through each of the organizations once an additional code was identified. As a result of inductive coding, there were 13 additional codes found separate from those that had been previously coded for during first cycle coding for response strategies and recommendations. The 13 additional codes were: (1) Call for monetary donation (2) Call for volunteers, (3) Call for blood donation, (4) Call for instructional help, (5) Updates on storm status, (6) Updates on organization's status, (7) Updates on volunteer status, (8) Updates on external relief efforts, (9) Updates on condition after storm, (10) Affected communities, (11) Affected individuals, (12) Victim's actual story, (13) Victim responses.

Second cycle coding collapsed the 13 additional codes into four categories: (1) organization's call for donations, (2) organization's call for help, (3) informative storm and response updates, and (4) victims' stories. The call for donations category was defined as when an organization directly acts for a donation, including monetary donations, but excluding volunteers signing up to help. The organization's call for help code was defined as a call to those reading the Tweets to provide help to those in need, including asking for help or volunteers, but excluding asking for monetary help and donations. The informative storm and response updates were updates on what is going on with the hurricane as well as the aftermath, such as flooding updates. This category included information about the storm or organizations, and excluded information about actual relief efforts. The final additional code category was victims' stories, which was any mention of a specific person or community directly affected by the hurricane, including their stories and excluding the stating of facts about the destruction or talking about how the organization helped those victims. For every code in both first and second cycle coding, the number of times each code appears in the pre-crisis, crisis, and post crisis phases of the organizations' Tweets was recorded and accounted for in analysis.

Results

Tweets were coded and analyzed in order to address the research questions presented in this study. Research Question 1a asked what response strategies each of the four organizations used during each crisis phase of Hurricane Matthew over Twitter. Of the four possible postures, response strategies in this dataset fell under the two postures of rebuilding and bolstering, including only three of the response strategies: (1) compensation, (2) ingratiation, and (3) victimage. In the crisis types/clusters outlined in Coombs (2015), natural disasters fall under the victim cluster, which involves very little attribution of crisis responsibility. Given that the three response strategies that appeared in the data did not involve dealing with crisis responsibility, there was a match between the organization's response strategies and the crisis type.

The compensation code was described as the organizations' communications about providing money or gifts to the victims of the disaster, and appeared 31 times total in the dataset. In The ARC's Tweets, the compensation code was present nine times, four times in the crisis phase and five times in the post-crisis phase. A typical example of this code as shown in a Tweet by The ARC is: "#RedCross readies for #HurricaneMatthew relief operation, with 100+ shelters preparing to open on the East Coast" (RedCross, October 5, 2016). Compensation appeared 15 times in Tweets by The Salvation Army USA, including seven times in the crisis phase and eight times in the post-crisis phase. A typical example of this code in a Tweet by The Salvation Army USA is: "TSA is sheltering 780+ people in #Haiti after #HurricaneMatthew" (SalvationArmyUS, October 5, 2016). This code appeared two times in the Hope for Haiti Tweets in the crisis phase and post-crisis phase. An atypical example of the compensation code in a Tweet by Hope for Haiti is: “Hurricane relief donations will be used for: - Food – Supplies for house repairs – Medicine cholera, typhoid – Seeds, farming supplies” (HopeForHaiti, October 7, 2016). This was an atypical example for the code because there was not a specific number or amount mentioned, but it still shows the supplies being used by the organization to compensate the victims, and therefore was coded under the compensation code. The compensation code was present five times in World Vision Haiti’s Tweets, including once in the pre-crisis phase and four times in the post-crisis phase. A typical example of this code in World Vision Haiti’s Tweets is: “A week after #HurricaneMatthew hit #Haiti our teams have already helped more than 12,000” (WorldVision, October 13, 2016).

Within the bolstering posture, the ingratiation and victimage response strategies appeared in the data 20 times and 12 times total, respectively. Ingratiation was described as the organization praising stakeholders or praising those who are a part of the organization who are helping relief efforts. In The ARC’s Tweets, the code appeared four times, including once in the crisis phase and three times in the post-crisis phase. A typical example of the ingratiation code in The ARC’s Tweets is: “A special thanks to our partners & their customers for supporting #HurricaneMatthew relief!” (RedCross, October 21, 2016). Ingratiation was present 11 times in The Salvation Army USA’s Tweets, including three times in the crisis phase and eight times in the post-crisis phase. A typical example of this code in The Salvation Army USA’s Tweets is: “We’re blessed to have millions of volunteers who make such a difference in the lives of those we serve”

(SalvationArmyUS, October 27, 2016). In Hope for Haiti's Tweets, the ingratiation code appeared three times in the post-crisis phase. A typical example of this is: "Sending special social media gratitude to SO MANY donors and fundraisers in the wake of #HurricaneMatthew!" (HopeForHaiti, October 23, 2016). Finally, the ingratiation code appeared twice in World Vision Haiti's Tweets, in the pre-crisis and post-crisis phases. An atypical example of this code in World Vision Haiti's Tweets is: "Our staff in #Haiti are working around the clock to prepare for #HurrianeMatthew and its expected impact" (WorldVision, October 3, 2016). This was considered an atypical example because it does not directly thank the staff, but it still shows that the organization is appreciative of the efforts they are making in Haiti.

The victimage response strategy was described as the organization explaining how it is also a victim of the crisis, essentially a "we're right there with you" statement. The ARC did not use this response strategy. In The Salvation Army USA's Tweets, the victimage code appeared seven times, including five times in the crisis phase and twice in the post-crisis phase. A typical example of this code from the organization's Tweets is: "The #SalvationArmy is safe, hunkered down and serving as #HurricaneMatthew passes" (SalvationArmyUS, October 8, 2016). The victimage code was present once in Hope for Haiti's Tweets in the post-crisis phase. A typical example of this code is: "Our school, church, clinic are still standing. Our people are resilient […]" (HopeForHaiti, October 20, 2016). Finally, the victimage code appeared four times in World Vision Haiti's Tweets, twice in the pre-crisis phase and twice in the crisis phase. A typical example of this code is: “Our staff are hunkered down waiting for the #hurricane to pass” (WorldVision, October 4, 2016).

Research Question 1b asked if the organizations used any of the 13 response strategy recommendations outlined in Coombs (2015). As noted in the methods section, there were three of these recommendations present in the data, of which the recommendations’ titles for coding were: (1) instructing information, (2) adjusting information, and (3) victimage strategy matches victim cluster.

Instructing information was described as providing instructing information to all victims or potential victims in the form of warning and directions for protecting themselves from harm, and appeared in the dataset a total of 19 times. This coded recommendation appeared five times in the dataset, including three times in the pre-crisis phase and twice in the crisis phase. A typical of example of instructing information is: “We are monitoring #HurricaneMatthew for any potential US impacts. Be prepare w/ these hurricane prep tips: http://rdcrss.org/2d9op1u” (RedCross, October 3, 2016). This code appeared in The Salvation Army USA’s Tweets eight times, including once in each of the pre-crisis and crisis phases, and six times in the post-crisis phase. An atypical example of this code is: “Main bridge to affected areas of #Haiti destroyed by #HurricaneMatthew” (SalvationArmyUS, October 5, 2016). While it does not provide the audience with instructions on what to do, it does provide them with a warning that the bridge has been destroyed. Hope for Haiti did not use this recommendation. In World Vision Haiti’s Tweets, instructing information appeared six times, including three times in the pre-crisis phase, twice in the crisis phase, and once in the post-crisis phase.

Another atypical example of this in World Vision Haiti's Tweets is: "A death toll from #HurricaneMatthew in #Haiti continues to rise, water and shelter top concerns for displaced" (WorldVision, October 7, 2016). This is atypical because it again does not necessarily provide steps or tips on response, but it does let the audience know the top concerns for relief efforts.

Adjusting information was described as providing adjusting information to victims by expressing concern for them and providing corrective action when possible, and appeared in the dataset a total of 17 times. The ARC used this recommendation once in the post-crisis phase, an atypical example of it being: "'Time has a way of healing' things. Neighborhoods recover after #HurricaneMatthew" (RedCross, October 25, 2016). While it does not directly express concern, the quote in the beginning of the Tweet shows that the organization is right there with the people. In The Salvation Army USA's Tweets, adjusting information appeared 13 times, including twice in the pre-crisis phase, four times in the crisis phase, and seven times in the post-crisis phase. A typical example of this code is: "We're praying for our friends in the Caribbean as they experience devastating weather" (SalvationArmyUS, October 4, 2016). Hope for Haiti used the adjusting information recommendation twice in the post-crisis phase, an example of this being: "Love and support for Haiti keep pouring in" (HopeForHaiti, October 17, 2016). World Vision Haiti used this recommendation once in the post-crisis phase. A typical example of this is: "It will take #Haiti a long time to recover from the effects of #HurricaneMatthew" (WorldVision, October 21, 2016).

Research Question 2 asked how the response strategies differed by organization. There were a small number of differences in the crisis response strategies. First, The ARC and The Salvation Army USA used the compensation response strategy more frequently than Hope for Haiti and World Vision Haiti. The Salvation Army USA used this strategy a total of 15 times, while The ARC used it nine times, Hope for Haiti used it two times, and World Vision Haiti used it five times. Additionally, The Salvation Army USA had the highest frequency of the ingratiation response strategy, while the other three organizations did not have significant differences in their frequency of using this particular strategy. The Salvation Army USA used ingratiation 11 times, The ARC used it four times, Hope for Haiti used it three times, and World Vision Haiti used it twice. Nearly all the responses using the ingratiation strategy, across all four organizations, occurred in the post-crisis phase: 15 times out of the total 20 times the code was used. For the victimage response strategy, The Salvation Army USA is again in the lead for number of times the strategy was used. The ARC did not use this response strategy, Hope for Haiti used it once and World Vision Haiti used it four times. The Salvation Army USA also had a much greater number of Tweets across all phases of the crisis, with 92 Tweets, followed by The ARC with 33 Tweets, World Vision Haiti with 29 Tweets, and Hope for Haiti with 20 Tweets.

Research Question 3 asked how the organizations’ response strategies differ by the target location and public with which they were communicating. As noted in the literature review, The ARC and The Salvation Army USA’s relief efforts focus primarily on the U.S., while Hope for Haiti and World Vision Haiti focus primarily on Haiti. Data immersion and pre-coding revealed that nearly all relief efforts of The ARC and The Salvation Army USA were, in fact, focused on the U.S. only, while the relief efforts of Hope for Haiti and World Vision Haiti were focused on Haiti only. In The Salvation Army USA's Tweets that were coded as the additional response strategy of the organization's call for donations, the organization called for donations in Haiti and the Caribbean. This happened four times in The Salvation Army USA's Tweets, and was the only code in the U.S. focused organizations' Tweets that addressed relief outside the U.S. The only significant difference between the U.S. focused organizations' response strategies and the Haiti organizations' response strategies was in the use of the compensation response strategy. The U.S. focused organizations, The ARC and The Salvation Army USA, used compensation a greater amount than the Haiti focused organizations, Hope for Haiti and World Vision Haiti.

Research Question 4 asked what additional response strategies were present in the Tweets by each of the organizations. As noted in the methods section, there were a total of 13 additional codes that appeared in the dataset, that were then collapsed into four categories: (1) organization's call for donations, (2) organization's call for help, (3) informative storm and response updates, and (4) victims' stories.

The organization's call for donations response was described as when an organization directly asks for a monetary donation from outside of the organization, and appeared a total of 20 times in the dataset. The ARC used this response once in the post-crisis phase, a typical example of this being: "To help people affected by Hurricane Matthew, please text the word MATTHEW to 90999 to make a $10 donation"

(RedCross, October 9, 2016). This code appeared 18 times in The Salvation Army USA's Tweets, including twice in the pre-crisis phase, 12 times in the crisis phase, and four times in the post-crisis phase. A typical example of this code is: "Please donate to TSA's relief efforts: http://salar.my/Matthew" (SalvationArmyUS, October 5, 2016). Hope for Haiti used this response once in the crisis phase. A typical example is: "Many of you have been asking if you can donate – the answer is YES and THANK YOU (Check "Hurricane Relief Fund")" (HopeForHaiti, October 7, 2016). World Vision Haiti did not use the call for donations response in its Tweets.

The organization's call for help response was described as a call to the public to provide help to those in need and those affected by the hurricane. This code appeared a total of 23 times in the dataset. The ARC used this response three times in the post-crisis phase. An atypical example of this code in The ARC's Tweets is: "Please #GiveNow. http://www.redcrossblood.org/" (RedCross, October 11, 2016). This is an atypical example because it still asks for the public to give, but the organization is asking for blood donations rather than monetary donations, causing it to fall under the call for help response. The Salvation Army USA used this response 18 times, including seven times in the crisis phase and 11 times in the post-crisis phase. A typical example of this is: "Here's how to help the people of Haiti affected by Hurricane Matthew – http://salar.my/PkYv5N via @weatherchannel" (SalvationArmyUS, October 6, 2016). Hope for Haiti used the call for help response once in the pre-crisis phase, in Tweet asking for volunteers: "Send support to Haiti after #HurricaneMatthew" (HopeForHaiti, October 4, 2016). World Vision Haiti used this response once in the post-crisis phase by Tweeting “Much more help is needed” (WorldVision, October 13, 2016).

The informative storm and response updates code was described as informative updates on what is actually going on with the hurricane, the aftermath, and the response teams. This code appeared a total of 20 times in the organizations’ Tweets. The ARC used this response twice in the post-crisis phase. A typical example of this is: “#WeatherRed updates from North Carolina, where #HurricaneMatthew brought the worst flooding since Hurricane Floyd in 1999” (RedCross, October 17, 2016). The Salvation Army USA used this response 10 times, including once in the pre-crisis phase, four times in the crisis phase, and five times in the post-crisis phase. An example of this as it appears in The Salvation Army USA’s Tweets is: “#HurricaneMatthew impacts FL, GA & the Carolinas” (SalvationArmyUS, October 6, 2016). This code appeared six times in Hope for Haiti’s Tweets, including twice in the pre-crisis phase and four times in the post-crisis phase. An atypical example is: “Last week faculty, staff, students of @campbelledu raised more than $6,500! #HopeForHaitiHumpDay” (HopeForHaiti, October 17, 2016). While this Tweet mentions an amount of money, it is not talking about a monetary amount the organization has given, but rather it is informing the public about the amount of money a group outside the organization has raised for relief efforts. Therefore, it was coded as informative storm and response updates. World Vision Haiti used the informative storm and response updates code twice in their Tweets, once in the pre-crisis phase and once in the crisis phase. A typical example of this is: “Our assessments show thousands of houses destroyed or damaged” (WorldVision, October 6, 2016).

The victims’ stories response was described as any mention of a specific person or community who was directly affected by the hurricane, and appeared a total of seven times in the dataset. The ARC used this response once in the crisis phase, an atypical example being: “‘This is our reality.’ Florida residents like Richard find refuge in Red Cross shelters #Matthew” (RedCross, October 7, 2016). This is atypical because it mentions Red Cross shelters, however, it is doing so as part of a victim’s story, and therefore was still coded under victims’ stories. The Salvation Army USA used this response four times in the post-crisis phase. A typical example of this code is: “Jerry was one of those evacuated by bus from our Fayetteville shelter when it started to flood. […]” (SalvationArmyUS, October 17, 2016). Hope for Haiti did not use the victims’ stories response in any of its Tweets. World Vision Haiti used this response twice, including once in the crisis phase and once in the post-crisis phase. A typical example of this code is: “In the new #video Dolphine, 13, tells how #HurricaneMatthew destroyed her home & washed away her belongings” (WorldVision, October 14, 2016).

Discussion

This study contributes to the growing body of literature examining crisis communication theory and public relations. Sisco, et al. (2010) drew the conclusion that public relations theory does (or at least should) inform practice (Sisco, *et al.,* 2010). SCCT is a crisis communication theory, that uses a public relations lens to interrogate crisis communication. The findings in this research indicate a potential disconnect between theory and practice. The results of this study expand our understanding of SCCT in three ways. First, Twitter as an emerging platform in the field of crisis communication, is still underdeveloped. Organizations have yet to take full advantage of the unique channel Twitter provides for crisis communication. Second, the vast majority of SCCT research and application has focused on for-profit corporations. The data from this study show that there is something different happening with crisis responses when non-profit organizations are communicating. And third, SCCT makes assumptions about target audience. The results of this study show that the organizations' Twitter audience is much broader than the organizations may have accounted for when preparing their response strategies. This discussion will first interpret the results of this research by addressing the three main contributions it makes to the field. Then, it will assess the implications of the study on crisis communication theory and practice. Next, it will address limitations of the current study, and lastly it will suggest recommendations for future research in this field.

First, the results of this study contribute to an understanding of Twitter as an emerging platform in crisis communication, with much room for development and improvement. Prior research on Twitter has opened up great possibilities for collaboration and organizational communication (Lovejoy & Saxton, 2012). The little research that does exist on social media communications and NPOs (Bortree & Seltzer, 2009; Greenberg & MacAulay, 2009; Waters, 2007) suggests that Twitter for informational uses in further interactivity and dialogue with followers seems to be lost on crisis communication practitioners in NPOs. Twitter also has the potential to serve as "backchannel" news, to act with traditional media in order to reach a wider audience (Sutton, *et al.,* 2008). However, the organizations do not appear to be providing enough information in order to fulfill this social media goal. The data show that Twitter may not be well developed in crisis communication, both in lack of adjustment in response strategies across each of the three crisis phases, as well as strategies and recommendations used by the organizations. The crisis phase did not appear to be taken into consideration by the organizations, as the response strategies used did not differ by crisis phase. One possible explanation for this could be the immediacy of Twitter and the way information is disseminated over this channel. Given that natural disaster crises require timely and targeted communication efforts (Spence, *et al.,* 2015), information is likely provided to the public as it becomes available to the organizations. The push for immediate information leaves little time for organizations to adjust their response strategies to fit with each crisis phase. Twitter may also provide a unique outlet for the dissemination of information in a continuous stream. This suggests that the division of response strategies by crisis phase may be obsolete when organizations are using Twitter to communicate.

Organizations have yet to take full advantage of the unique channel Twitter provides for crisis communication. Prior studies (Kent, *et al.,* 2003; Saxton, *et al.,* 2007) have shown that NPOs have previously not been able to use websites as effectively as they should be regarding crisis communication (Lovejoy & Saxton, 2012). This may be because practitioners did not know how to use the platforms. However, with the prominence of social media sites now, such as Twitter, there is no longer an excuse to be unable to communicate over these platforms (Lovejoy & Saxton, 2012). Therefore, it is a responsibility for NPOs to take advantage of Twitter as a platform for disseminating crisis communication information, in order to effectively communicate with stakeholders, donors, and the public. Twitter is an interesting platform since social media has become a natural part of the search for information during crises (Coombs, 2015). Although instructing information is the first of the 13 crisis response strategy recommendations (Coombs, 2015), it only appeared a total of 19 times in the Tw eets across all four organizations. Social media resources, such as Twitter, are expected to address the void of information during crises (Ulmer, *et al.,* 2015), yet the organizations' Tweets provided very little instructing information to address this void. This raises the question of how organizations are intending to use Twitter during crises, and if they are missing the opportunity to provide timely instructing information to those affected. Organizations seem to still be trying to learn how to communicate over Twitter, and could be limited by the immediacy factor on Twitter, or even by the small number of allotted characters in each Tweet. During crises, social media sites promise to facilitate coordinated communication (Purohit, *et al.,* 2013), yet the organizations all lacked in their abilities to provide a substantial amount of instructing information on how to act appropriately during the crisis. Perhaps the response strategies and recommendations in SCCT are not seamlessly transferrable to Twitter, and new communication strategies are required in order for organizations to use this outlet to its fullest potential.

Twitter allows for immediate and constant communication, and for information to spread quickly to a large audience. This is especially important when crises like natural disasters occur, because those affected are in need of immediate and continuous information in order to understand how to act accordingly. Furthermore, when an unpredictable crisis occurs, people seek out information to reduce fear and uncertainty (Brashers, *et al.,* 2000). Twitter gives organizations the ability to provide quick and constant information to reduce uncertainty and fear and to guide people's behaviors so as to reduce harm during the situation. While SCCT recommends providing instructing information first (Coombs, 2015), NPOs must also consider other important information they have to communicate to the public during crises. This brings the discussion to the second important contribution to SCCT that the findings of this study make, which deals with the type of organizations being analyzed. The vast majority of SCCT research has focused on and been developed around the study of for-profit corporations. With the exception of research by Sisco, et al. (2010) that used news articles to look at The ARC's crisis response strategies, there have been no previous studies that have used SCCT to look at NPOs' response strategies.

The data show that NPOs are inherently different than for-profit corporations in their crisis response strategies and communications, particularly over Twitter. This difference can perhaps be explained by the fundamental differences between the organizations, in that corporations do not require the donations that NPOs require in order to continue funding relief efforts. Given that nearly 75 percent of support for NPOs comes from contributions and donations (Sisco, *et al.,* 2010), NPOs' communications regarding information on donating comes to the forefront of the organizations' priorities. NPOs are able to provide relief through their donations, which expands upon the purpose and content of instructing information for these organizations. During crises, the people are the first priority, so instructing information should be the first information the public receives (Coombs, 2015). In the case of for-profit corporations, instructing information consists of informing stakeholders or those directly affected by the crisis on ways to mitigate harm. People need to know the what, when, where, why and how of a crisis (Ammerman, 1995) to create a basic understanding of what happened so those affected may act appropriately (Palttala, *et al.,* 2012). In the case of non-profit organizations, however, one potential reason why little instructing information was provided could be due to the very nature of the organizations and the way they receive funding. However, this is perhaps a missed opportunity for NPOs in relation to their missions, which are often first and foremost to serve the people. If they are not providing people with information to help them understand what is occurring during a crisis, it can be argued that they are not completely fulfilling their mission of serving the public's needs. The organizations appear to have prioritized information about donations over instructing information, and while donations are necessary in order to serve the people, so is information on how the people should react to a crisis.

SCCT says that when a crisis hits, both stakeholders and the people need to know if there is anything they need to do in order to protect themselves physically (Coombs, 2015). Additionally, people want to know what is being done to prevent another crisis like this from happening. In the case of natural disasters, this becomes tricky, given that this crisis type is not a preventable crisis. However, adjusting information, the second recommendation (Coombs, 2015), becomes important here. This information must be used to show how the organizations are taking action during a crisis. This action, to control the crisis situation, is called corrective action, and is a facet of adjusting information. Corrective action reduces psychological stress by reassuring people that safety is a priority (Sellnow, *et al.,* 1998). Corporations use this strategy to assure stakeholders that they are doing what they can to prevent harm from the crisis, and also to assure that they are protecting the safety of the people. While corporations try to protect stakeholders and those directly affected when a crisis occurs, NPOs must also protect their ability to provide relief efforts, which would include assuring they are sufficiently funded. Without donations, NPOs are unable to serve the people, often the largest part of their missions. Although serving the people includes providing them with physical relief such as shelters and supplies, it should also include providing them with instructing and adjusting information. Therefore, it appears that instructing information takes on a different form as a SCCT recommendation for NPOs' response strategies. There are two facets to instructing information in the case of NPOs, and a balance of both is necessary in order to effectively communicate and serve the people. The data would suggest that SCCT crisis response strategies were not designed for NPOs, but rather for for-profit corporations in order to communicate with stakeholders. Adjustments should be made to SCCT response strategies and recommendations to fit with the priorities of NPOs' communications.

Although the need for donations is a possible explanation of the differences in the ways corporations and NPOs communicated, the discrepancy in response strategies and recommendations used is still particularly problematic. In addition to information about donating in order to receive sufficient funding, NPOs also have a responsibility to provide instructing and adjusting information in order to meet their publics' needs. NPOs are a trusted source of relief and information, and are often the first type of organization that the public turns to when a crisis occurs. NPOs are viewed as less competent than corporations (Aaker, *et al.,* 2012), so have a responsibility to increase their competence during crises and communicate effectively because the public often turns to these organizations rather than corporations in times of need. The majority of the public puts more trust in NPOs than corporations (Edelman, 2017), particularly in terms of the allocation of funds and resources. In 2017, The Edelman Trust Barometer showed that the mass population rejects established authority. This includes corporations and government, which would imply that a large portion of the population may turn to NPOs for information during a crisis. Also, 51 percent of those who distrust the current system, believe NPOs are the most trustworthy organizations (Edelman, 2017). Given that a higher percentage of people put their trust in NPOs before corporations, it is imperative that NPOs are communicating effectively with the public during crises. People are far more likely and able to donate to a non-profit cause than they are to donate to a corporation.

Since the public is not receiving instructing or adjusting information from corporations, they reach out to NPOs in hopes of receiving information on what to do during a crisis. If neither corporations nor NPOs are providing a sufficient amount of instructing and adjusting information, there arises an issue in terms of where the public can go to seek this necessary information. This not only could harm the reputations of the organizations, but could also lead to greater harm and risk to public safety during natural disasters. Although the data show inherent differences in NPOs and corporations in their expected response strategies, part of a NPO's mission is to fill in those gaps in corporate communication. NPOs have the opportunity, and even the responsibility, to serve the public as well as those affected by a natural disaster. Often times, this is the very premise on which these organizations are founded. It is concerning and problematic that these four NPOs virtually ignored their responsibility to provide a sufficient amount of instructing information, and appeared to solely focus on instructing information for providing donations. NPOs should balance the information they provide the public to include both information about donations, as well as instructing and adjusting information. This also shows why there is perhaps a disconnect in SCCT response strategy recommendations, designed for corporations, and NPOs' communications. This warrants adjustments in the SCCT response strategies and recommendations in terms of how for-profit corporations and NPOs should be communicating differently during crises.

This is essential given that NPOs should be providing the information that corporations are not, because a majority of people are putting their trust in NPOs during crises.

This brings the discussion to the third key finding, which expands understanding of SCCT. In SCCT, part of forming a response strategy involves considering the target audience (Coombs, 2015). SCCT has assumptions about who the audience is; In the case of corporations, this would include the stakeholders and those directly affected by the crisis. The data, however, is showing that there may be a broader audience to account for over Twitter. Given that the four organizations are NPOs, they are not solely attempting to communicate with their respective stakeholders. There was little difference in the response strategies of the four organizations based on the target publics and locations. This could be because the NPOs are trying to reach a wider audience, beyond those directly affected by the crisis. This makes the target audience a less important consideration for NPOs than SCCT assumes it is for corporations.

There are two possible explanations for the lack of difference in response strategies based on location of the target audiences. First, this could again have something to do with the goals of NPOs' communications, one of the priorities being to raise donations to fund relief efforts. For corporations, communicating with their stakeholders does not need to involve asking for donations. For NPOs, however, keeping communication open to all audiences allows for information about where and how to donate to reach a wider audience. It can be assumed that NPOs are not attempting to only receive donations from one specific location, but want to reach the largest number of people possible to increase funds to go toward relief efforts. By not only communicating with one target audience, NPOs are better able to collect donations from the broader audience that Twitter provides. Although the organizations' target locations of relief differ, they all have the same mission to provide relief to the people. Perhaps the target audience becomes less important when the missions of the organizations are the same. Additionally, even though the organizations had respective locations of relief, all four of the organizations' communications over Twitter were in English only. This could mean that the organizations are in fact trying to reach donors as their primary audiences, and could perhaps be why there was a lack of instructing information about the storm. The organizations were not intending to communicate directly with the people of Haiti, or those affected by the storm, but were rather trying to reach out to donors regardless of location. The second possible explanation could have something to do with Twitter as the platform analyzed in this study. Perhaps given the vastness of Twitter audiences and the expected immediacy of Tweets, the organizations were attempting to communicate with anyone involved to get their message out there as soon as possible. This may not only have been for donation information, but could also have been to provide informative storm and response updates to all audiences. This was possibly in order to include all people in the priority of public safety, regardless of location. Given that all four organizations were responding to not only the same crisis, but also the same crisis type, there was little difference in response strategies based on the target publics.

The findings in this research present opportunity for development in terms of how NPOs in particular are using Twitter as a communication tool during crises. The results of this study advance our understanding of SCCT in the context of Twitter as an emerging platform in crisis communication, NPOs as a unique type of organization, and the broadness of the audience with which the organizations were communicating. The first section of this discussion has shown that Twitter can and should be used as a unique tool for immediate and wide-reaching communication during crises. With more development, and perhaps training, organizations will better be able to take advantage of what the platform has to offer. This includes better incorporating crisis response strategies and recommendations into their communications. Additionally, this study found that there are important differences between corporations, which are the primary focus of SCCT response strategies, and NPOs, which were the focus of this research. These differences need to be considered in response strategy recommendations, and adjustments should be made in order to better serve the audiences with which NPOs are communicating. Finally, Twitter provides the opportunity for organizations to reach a broader audience. The data show that the target audience was not as strongly considered as expected, which shows how far-reaching Twitter goes in terms of audience. This also reveals the potential for organizations to reach a broader audience again in future crises, in order to both disseminate information about the crisis or to fund their relief efforts through donation communications.

Implications

This study identified how four NPOs communicated via Twitter during Hurricane Matthew. Given that publics are increasingly turning to social media, particularly Twitter, as a widely used source of information (Morris, *et al.,* 2010; Sin & Kim, 2013), it is important that organizations realize the opportunity and potentially the responsibility they have to communicate effectively on these sites. A unique characteristic of Twitter is its ability to provide immediate information to a broad audience. While the organizations provided a lot of information about storm and response updates, and how to help or donate, there was little instructing information communicated to the public. This is problematic, and should be taken into consideration when addressing future crises. Without instructing information, those affected do not know what to do, creating uncertainty. Delivering the necessary information to the public to help them react to a disaster, has the potential to save lives by providing them with guidance on how to stay safe. Although the SCCT recommendations are geared toward corporations, Coombs (2015) does not limit the use of the strategies and recommendations to corporations exclusively. This means that instructing and adjusting information should still be top priorities in response strategies by organizations over social media, and that other strategies and recommendations are still able to be used by NPOs in addition to corporations. Perhaps SCCT recommendations need to be adjusted to fit with the emerging medium of Twitter, in order to serve the needs of both NPOs as well as the public with which they are communicating.

The findings in this research show that NPOs are not communicating as prescribed in the SCCT. Given that SCCT has primarily focused on corporations, there were a number of areas in the response recommendations that the NPOs fell short in their Tweets. That being said, perhaps the SCCT response recommendations are not suitable for the goals of NPOs. Corporations are attempting to reduce harm to stakeholders, yet this data showed that NPOs are most frequently providing updates on the storm and response efforts, as well as discussing donations. This would indicate a disconnect between SCCT response strategies and recommendations for NPOs' communications. Again, adjusting the response strategies and recommendations to account for the unique ways that NPOs communicate to the public would allow for better crisis communication during disasters. It can also be a consideration to develop a list of response strategies and recommendations for NPOs specifically, in order to best serve their unique needs as organizations and their missions and goals to serve the public.

Another discrepancy that appears in the data is in the target audience of organizations' response strategies over Twitter. In the case of NPOs, greater consideration needs to be given to who the target audience is, if there even is one. Twitter provides a far-reaching audience, which could help NPOs reach a wider range of people seeking information on how to stay safe or how to donate. By expanding their response strategies, as well as their target audiences, NPOs can more effectively provide relief to the public. While corporations target their communications to their stakeholders, it appears that NPOs' target audiences are much broader. This provides NPOs with a unique opportunity to communicate more effectively over Twitter, adjust their response strategies to serve their non-profit needs, and use Twitter as a way to reach a broader audience.

Limitations and Future Research

While this research yielded important findings to the field of crisis communication, there were several limitations which can be directions for future research. First, the dataset was limited in size and scope due to the fact that each organization only posts a certain number of Tweets. A dataset inclusive of more Tweets and organizations may yield additional findings. Organizations that varied more in their target public or their work and relief efforts could have provided a better comparison in terms of how response strategies differed across the organizations. Second, while this research looked at Twitter specifically, more data from news stories, press releases, or statements by the organizations could have perhaps filled in some of the gaps in missing response strategies and recommendations from the organizations' Tweets. Since Twitter is still considered an emerging platform, perhaps organizations are not yet using it to its full potential for crisis communications. Looking at other channels of crisis response by the organizations, may show different response strategies and recommendations being used on these platforms than on Twitter. Additionally, future research should look more closely at the organizations and their intentions in their crisis response strategies. Knowing who the organizations' target publics are and the goals of their communication messages would be beneficial in understanding how closely the response strategies matched the target audiences' needs in the wake of the crisis.

A final limitation is that this research did not include public replies, retweets, or favorites. Future research that includes these Twitter features would provide understanding into the way Twitter facilitates two-way communication. This is important to look at because two-way communication is the most ethical way to conduct public relations (Grunig, 1992). Looking at how this plays out between organizations and their Twitter audiences would make for a better understanding of the effectiveness of response strategies over this platform. This would allow for the researcher to understand how the response strategies are being received by the public, and in turn how the organizations are responding to those replies. This would be the next step in determining how helpful the crisis response strategies are in providing the public with necessary information and strategies. Additionally, this could perhaps shed more light on the establishment of community over social media. Looking at replies could show if communities are forming over Twitter as a result of communications about the crisis. Given that Twitter allows for and encourages this type of communication, it also provides a unique opportunity for organizations to act as facilitators in fulfilling the emotional connectedness and community needs that are often important following crisis events (Spence, *et al.,* 2015). In terms of the dissemination of the two-way communication over Twitter, hashtags, which increase searchability and spreadability of messages of Twitter, should also be addressed. Tracing the path of hashtags that were included in Tweets by the organization could show how the information is being received and spread by the public, including replies to the organizations' Tweets and hashtags directly.

This research showed an apparent disconnect between crisis communication theory and actual output by NPOs over Twitter. Future research should look at potential disconnects that may exist in other crisis communication outlets, such as additional social media sites. This would address whether this disconnect only occurs on Twitter, or if it is an issue that spans all social media sites.

Conclusion

In summary, this research sought to fill an important gap in the literature on crisis communication response strategies and recommendations in SCCT by examining NPOs' Tweets before, during, and after Hurricane Matthew. The study qualitatively coded for SCCT response strategies and recommendations (Coombs, 2015), and found additional responses present in the organizations' Tweets. The results indicate that at least over Twitter, there is a potential disconnect between SCCT theory and practice. This study expanded knowledge in crisis communication and NPOs over Twitter in three major ways. First, Twitter is still emerging and developing, and crisis communicators are still figuring out how to use the new platform to effectively share information. Second, the vast majority of SCCT research and application has focused on corporations. The data from this study show that there is something different happening with NPOs' communications. And third, SCCT makes assumptions about target audience. The results of this study show that the organizations' Twitter audience is much broader than the organizations may have accounted for when preparing their response strategies.

First, Twitter is an important emerging platform. Past research findings indicate that the medium is more important than the message when it comes to crisis response strategy and communication (Schultz, *et al.,* 2011). This research found that Twitter provides a unique opportunity for organizations to adjust their SCCT response strategies and recommendations based on their goals to reach the broader audience that Twitter provides. Past research using SCCT has relied heavily on surveys, quantitative content analysis, and experimental design, which has not allowed for thorough examination of actual output of organizations' messages. Additionally, it has not allowed for a thorough examination of the medium of Twitter as it relates to the response strategies of NPOs. This research was able to show the importance of the emerging platform of Twitter for communication during crises, as well as the need for NPOs to adjust to this platform and use it as an opportunity to effectively communicate with their audiences.

Second, this research found that the actual content of the Tweets provided insight into the role that NPOs play during crises, which is different than the role corporations play. Prior SCCT research has not addressed NPOs, or differences between corporations and NPOs. This research could perhaps explain why Sisco, et al. (2010)'s research found that The ARC's crisis response strategies between 1997 and 2007 did not match the recommendations in Coombs' SCCT. This was the only other study that used SCCT to address the response strategies of a NPO. The current study found that SCCT recommendations are geared toward corporations, and do not account for the unique characteristics of NPOs. This explains why Sisco, et al. (2010) found that The ARC was not using the recommended response strategies. The strategies are for corporations and need to be adjusted to fit with the goals of NPOs' communications during crises.

Third, this research contributed to the notion of target audience, which is unique on Twitter given the broad audience the medium entails. Lachlan (2014) found very few significant differences in audience Tweets during Hurricane Sandy. This research added to those findings by addressing the other side of the two-way communication on Twitter, by looking at potential differences between the way organizations communicate. There were not many differences between organizations' communications based on target audiences. Keeping the two-way communication open to all audiences allows for information to reach a wider audience, and therefore information about where and how to donate can be disseminated. Combining Lachlan (2014)'s findings and the results of this research, it can be concluded that during both steps of the two-way communication provided by Twitter, communications did not depend on or focus on target audience. This contributes to the literature on Twitter as a means for two-way communication and the way it facilitates community between organizations and the audience.

This research addresses some important questions in the area of crisis communication response strategies outlined in SCCT, and how they translate into communications over Twitter by NPOs. It allowed for understanding the actual output of organizations' communications over Twitter before, during, and after Hurricane Matthew. The results of this study advance our understanding of SCCT in three substantial ways. First, the data show how SCCT response strategies can be used over Twitter as an emerging platform in crisis communication. Second, NPOs are a unique type of organization not previously accounted for in SCCT. And third, the broadness of the target audience allows and will continue to allow NPOs the unique opportunity to reach a wide range of people in order to address their goals and missions to provide information and relief in the wake of crises like Hurricane Matthew.

References

Aaker, J., Vohs, K., & Mogilner, C. (2012). Non-Profits Are Seen as Warm and For Profits as Competent: Firm Stereotypes Matter. *Advances in Consumer Research.* Vol. 38, pp. 67-68.

Aikin, A. (2009). Communicating during a novel emergency: How to make your messages viral by using social media. *Social Media for Crisis Communications in Government, Washington, DC.* Retrieved from http://www.aliconferences.com/conf/social_media_crisis1109/day1.htm

American Red Cross (2006). American Red Cross 2006 annual report: Our 125th year of helping. (2006). Washington, DC: American National Red Cross. Retrieved from http://www.redcross.org/pubs/car06/ Annual_Report.PDF

American Red Cross (2015). What we do; Disaster relief, emergency management. *American Red Cross.* Retrieved from: http://www.redcross.org/what-we-do

American Red Cross (2016). American Red Cross Prepares Multistate Response as Hurricane Matthew Barrels Through Caribbean Toward U.S. *American Red Cross.* Retrieved from: http://www.redcross.org/news/press-release/American-Red-Cross-Prepares-Multistate-Response-as-Hurricane-Matthew-Barrels-through-Caribbean-toward-US

Ammerman, D. (1995). What's a nice company like yours doing in a story like this? In L. Barton (Ed.), *New Avenues in risk and crisis management,* (Vol. 3 pp. 3-8). Las Vegas: University of Nevada Las Vegas, Small Business Development Center.

Basit, T.N. (2003). Manual or electronic? The role of coding in qualitative data analysis.

Educational Research, 45(2), pp. 143—154.

Bazeley, P. (2007). *Qualitative Data Analysis with NVivo.* London: SAGE Publications, Inc.

BBC News (2016, October 7). Hurricane Matthew: Haiti storm disaster kills hundreds. *BBC World News, Latin America.* Retrieved from: http://www.bbc.com/news/world-latin-america-37582009

Benoit, W.L. (1995). *Accounts, excuses, and apologies: A theory of image restoration.* Albany: State University of New York Press.

Benoit, W.L. (1997). Image repair discourse and crisis communication. *Public Relations Review, 23,* 177-180.

Berger, C. R. (1987). Communicating under uncertainty. In M. E. Roloff, & G. R. Miller (Eds.), Interpersonal processes: New directions for communication research (pp. 39-62). Newberry Park, CA: Sage.

Bergman, E. (1994). Crisis? What crisis? *Communication World*, *11*(4), 9-13.

Bortree, D., & Seltzer, T. (2009). Dialogic strategies and outcomes: An analysis of environmental advocacy groups' Facebook profiles. *Public Relations Review*, 35, 317–19.

Boyatzis, R.E. (1998). *Transforming qualitative information: Thematic analysis and code development.* Thousand Oaks, CA: SAGE Publications, Inc.

Brashers, D. E., Neidig, J. L., Haas, S. M., Dobbs, L. K., Cardillo, L. W., & Russell, J. A. (2000). Communication in the management of uncertainty: The case of persons living with HIV or AIDS. Communication Monographs, 67, 63-84.

Briones, R. L., Kuch, B., Liu, B., & Jin, Y. (2011). Keeping up with the digital age: How the American Red Cross uses social media to build relationships. *Public Relations Review*, 37, 37–43.

Bunz, M. (2010, January 14). In Haiti earthquake coverage, social media gives victim a voice. The Guardian. Retrieved from http://www.guardian.co.uk/media/pda/2010/jan/14/socialnet working-haiti

Casey, L. A., & Rivken, D. B. (2005). Double Red-Crossed. National Interest, 79, 63–69.

Charity Navigator (2016). Hope for Haiti. *Charity Navigator: Your guide to intelligent giving.* Retrieved from: https://www.charitynavigator.org/index.cfm?bay=search.summary&orgid=9170

Claeys, A., Cauberghe, V., & Vyncke, P. (2010). Restoring reputations in times of crisis: An experimental study of the Situational Crisis Communication Theory and the moderating effects of locus of control. *Public Relations Review.* (pp.7-11).

Coombs, W.T. (2015). *Ongoing Crisis Communication: Planning, Managing, and Responding.* Thousand Oaks, CA: SAGE Publications, Inc.

Coombs, W. T. (2010). Parameters for crisis communication. In W. T. Coombs & S. J. Holladay (Eds.), *The handbook of crisis communication* (pp. 65-90). Malden, MA: Blackwell.

Coombs, W.T. (2007). Crisis Management and Communications. (pp. 1—14).

Coombs, W.T. (2007). Protecting Organization Reputations During a Crisis: The Development and Application of Situational Crisis Communication Theory. *Corporate Reputation Review,* 10(3), pp. 163—176.

Coombs, W.T. (2006). The Protective Powers of Crisis Response Strategies: Managing Reputational Assets During a Crisis. *Journal of Promotion Management,* 12(3/4).

Coombs, W.T. (2004). Impact of Past Crises on Current Crisis Communication: Insights From Situational Crisis Communication Theory. *Journal of Business Communication*, 14(3), pp. 265—289.

Coombs, W.T., & Holladay, S.J. (2002). Helping Crisis Managers Protect Reputational Assets: Initial Tests of the Situational Crisis Communication Theory. *Management Communication Quarterly.* 16(2), 165—186.

Coombs, W. T. (1999a). Information and compassion in crisis responses: A test of their effects. *Journal of Public Relations Research*, *11*, 125-142.

Coombs, W. T. (1999b). *Ongoing crisis communication: Planning, managing, and responding*. Thousand Oaks, CA: Sage.

Coombs, W.T., & Holladay, S.J. (1996). Communication and attributions in a crisis: An experimental study in crisis communication. *Journal of Public Relations Research.* 8(4), 279-285.

Dionisopolous, G.N., & Vibbert, S.L. (1988). CBS vs. Mobil Oil: Charges of creative bookkeeping. In H.R. Ryan (ED.), *Oratorical encounters: Selected studies and sources of 20th century political accusation and apologies* (pp. 214—252). Westport, CT: Greenwood.

Edelman (2017) Edelman Trust Barometer: Technical Appendix. Retrieved from: www.edelman.com/global-results.

Ezzy, D. (2002). *Qualitative Analysis: Practice and innovation.* London: Routledge.

Fearn-Banks, K. (2002). Crisis communications 2nd ed., Mahwah, NT: Lawrence Erlbaum Associates, Inc.

Fearn-Banks, K. (1996). *Crisis communications: A casebook approach*. Mahwah, NJ: Lawrence Erlbaum.

Fombrun, C. J., Gardberg, N. A., & Sever, J. M. (2000). The reputation quotient sm: A multi stakeholder measure of corporate reputation. *Journal of Brand Management,* 7(4), 241–255.

Greenberg, J., & MacAulay, M. (2009). NPO 2.0? Exploring the web presence of environmental nonprofit organizations in Canada. *Global Media Journal–Canadian Edition*, 2, 63–88.

Groscurth, C. R. (2011). Paradoxes of Privilege and Participation: The Case of the American Red Cross. *Communication Quarterly*, *59*(3), 296-314. doi:10.1080/01463373.2011.583498

Grunig, J.E. (1992). Excellence in Public Relations and Communication Management. Hillsdale, NJ: Lawrence Erlbaum.

Heath, R. L., Liao, S. H., & Douglas, W. (1995). Effects of perceived economic harms and benefits on issue involvement, use of information sources, and actions: A study in risk communication. Journal of Public Relations Research, 7(2), 89-109.

Hope for Haiti (2013). About Us-Overview. *Hope for Haiti*. Retrieved from: http://hopeforhaiti.com/about-haiti/haiti-then-and-now/

Holladay, S.J. (2009). Crisis communication strategies in the media coverage of chemical accidents. *Journal of Public Relations Research,* 21, 208-215.

International Red Cross. (2005, August 8). Red Cross and Red Crescent movement: History. Retrieved from http://www.redcross.int/en/history/not_nobel.asp

Jin, Y., Liu, B. F., & Austin, L. L. (2011). Examining the role of social media in effective crisis management: The effects of crisis origin, information form, and source on publics' crisis responses. Communication Research (0093650211423918).

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. Business Horizons, 53(1), 59–68.

Kent, M. L., Taylor, M., & White, W. J. (2003). The relationship between Web site design and organizational responsiveness to stakeholders. *Public Relations Review*, 29, 63–77.

Lachlan, K.A., Spence, P.R., Lin, X., Najarian, K., & Del Greco, M. (2016). Social media and crisis management: CERC, search strategies, and Twitter content. *Computers in Human Behavior.* 54, 647-652

Lachlan, K. A., Spence, P. R., & Lin, X. (2014). Expressions of risk awareness and concern through Twitter: On the utility of using the medium as an indication of audience needs. *Computers in Human Behavior*, 35, 554e559.

Lachlan, K. A., Spence, P. R., Lin, X., & Del Greco, M. (2014). Screaming into the wind: Twitter use during Hurricane Sandy. *Communication Studies*, 65(5), 500e518.

Lachlan, K. A., Spence, P. R., Lin, X., Del Greco, M., & Najarian, K. (2014). Twitter use during a weather event: Comparing content associated with localized and non-localized hashtags. *Communication Studies*, 65(5), 519e534.

Lachlan, K. A., Spence, P. R., & Seeger, M. (2009). Terrorist attacks and uncertainty reduction: Media use after September 11th. *Behavioral Sciences of Terrorism and Political Aggression,* 1(2), 101e110.

Lerbinger, O. (1997). *The crisis manager: Facing risk and responsibility*. Mahwah, NJ: Lawrence Erlbaum.

Lovejoy, K., & Saxton, G.D. (2012). Information, Community, and Action: How Nonprofit Organizations Use Social Media. *Journal of Computer-Mediated Communication.* 17(3), pp. 337–353.

Marcus, A. A., & Goodman, R. S. (1991). Victims and shareholders: The dilemmas of presenting corporate policy during a crisis. *Academy of Management Journal*. Vol. 34, 281-305.

McCarthy, J. & Boyd, D. (2005). *Digital Backchannels in Shared Physical Spaces: Experiences at an Academic Conference*. Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '05) Extended Abstracts. ACM Press, NY.

Moe, T.L. & Pathranarakul, P. (2006). An Integrated Approach to Natural Disaster Management. Public Project Management and its Critical Success Factors. *Disaster Prevention and Management*. 15(3) 396– 413.

Morris, M. R., Teeva, J., & Panovich, K. (2010). A comparison of information seeking using search engines and social media. ICWSM, 10, 23–26.

Pauchant, T. C., & Mitroff, I. I. (1992). *Transforming the crisis-prone organiza- tion: Preventing individual, organizational, and environmental tragedies*. San Francisco: Jossey-Bass.

Petkar, S. (2016, October 8). Hurricane Matthew is the 'most dangerous storm in living memory.' *Metro. UK.* Retrieved from: http://metro.co.uk/2016/10/08/hurricane-matthew-is-the-most-dangerous-storm-in-living-memory-6179189/

Purohit, H., Hampton, A., Shalin, V.L., Sheth, A.P., Flach, J., & Shreyansh, B. (2013). What kind of #conversation is Twitter? Mining #psycholinguistic cues for emergency coordination. *Computers in Human Behavior.* 29(6), 2438-2447.

Reynolds, B., & Seeger, M. W. (2005). Crisis and emergency risk communication as an integrative model. Journal of Health Communication, 10(1), 43–55.

Reynolds, B. J. (2010). Building trust through social media. Marketing Health Services, 30(2), 18–21.

Richards, L., & Morse, J.M. (2007). *Readme first for a user's guide to qualitative methods* (2nd ed.). Thousand Oaks, CA: Sage.

Saldaña, J. (2009). *The Coding Manual for Qualitative Researchers*. London: Sage.

Saxton, G. D., & Guo, C. (2011). Accountability online: Understanding the Web-based accountability practices of nonprofit organizations. *Nonprofit and Voluntary Sector Quarterly*, 40, 270–295.

Saxton, G.D., Guo, C., & Brown, W. (2007). New dimensions of nonprofit responsiveness: The application and promise of Internet-based technologies. *Public Performance and Management Review*, 31, 144–173.

Schultz, F., Utz, S., & Goritz, A. (2011). Is the medium the message? Perceptions of and reactions to crisis communication via Twitter, blogs, and traditional media. *Public Relations Review.* 37(1), 20-27.

Seeger, M.W., Sellnow, T.L., & Ulmer, R.R. (1998) Communication organization and crisis. In M.E. Roloff (Ed.), *Communication Yearbook.* (pp.231-275). Thousand Oaks, CA: Sage.

Sellnow, T.L., Ulmer, R.R., & Snider, M. (1998). The compatibility of corrective action in organizational crisis communication. *Communication Quarterly*, 46, 60-74.

Shoemaker, P. J., & Vos, T. P. (2009). Media gatekeeping. In M. B. Salwen & D. W. Stacks (Eds.), An integrated approach to communication theory and research (2nd ed.; pp. 75–89). New York: Routledge.

Sin, S.-C. J., & Kim, K.-S. (2013). International students' everyday life information seeking: The informational value of social networking sites. Library & Information Science Research, 35(2), 107–116.

Sisco, H.F., Collins, E.L., & Zoch, L.M. (2010). Through the looking glass: A decade of Red Cross crisis response and situational crisis communication theory. *Public Relations Review,* (36)1, 21-27.

Spence, P. R., Lachlan, K. A., Lin, X., & del Greco, M. (2015). Variability in Twitter Content Across the Stages of a Natural Disaster: Implications for Crisis Communication. *Communication Quarterly*, *63*(2), 171-186. doi:10.1080/01463373.2015.1012219

Stanley, G (2016, October 5). Hope for Haiti responds to Hurricane Matthew Devastation. *Naples Daily News.* Retrieved from: http://www.naplesnews.com/story/news/local/2016/10/05/hope-haiti-responds-devastation/91614648/

Sturges, D. L. (1994). Communicating through crisis: A strategy for organiza- tional survival. *Management Communication Quarterly*, *7*, 297-316.

Sutton, J., Palen, L., & Shklovski, I. (2008). Backchannels on the front lines: Emergent uses of social media in the 2007 Southern California wildfires. Proceedings of the 5th International ISCRAM Conference, Washington, DC.

The Salvation Army USA (2017). About The Salvation Army. Retrieved from: http://salvationarmyusa.org/usn/about

The Salvation Army USA (2017). Who We Are: Disaster Services. Retrieved from: http://disaster.salvationarmyusa.org/aboutus/

The Weather Channel (2016, October 10). Hurricane Matthew Recap: Destruction From the Caribbean to the United States. *Hurricane News: The Weather Channel.* Retrieved from: https://weather.com/storms/hurricane/news/hurricane-matthew-bahamas-florida-georgia-carolinas-forecast

Thelwall, M., & Stuart, D. (2007). RUOK? Blogging communication technologies during crises. Journal of Computer-Mediated Communication, 12, 189–214.

Ulmer, R.R., Sellnow, T.L., & Seeger, M.W. (2015). Effective Crisis Communication: Moving from Crisis to Opportunity (3rd ed.). Thousand Oaks, CA: SAGE Publications, Inc.

Veil, S. R., Buehner, T., & Palenchar, M. J. (2011). A work-in-process literature review: Incorporating social media in risk and crisis communication. *Journal of Contingencies and Crisis Management,* 19(2), 110e122.

Veil, S. R., Reynolds, B., Sellnow, T. L., & Seeger, M. W. (2008). Crisis & emergency risk communication as a theoretical framework for research and practice. *Health Promotion Practice,* 9(4), 26Se34S.

Waters, R. D. (2007). Nonprofit organizations' use of the Internet: A content analysis of communication trends on the Internet sites of the organizations on the Philanthropy 400. *Nonprofit Management & Leadership*, 18, 59–76.

World Vision International (2017). World Vision Haiti: About Us. Retrieved from: http://www.wvi.org/haiti/about-us

@RedCross (2016, October 3-October 31). American Red Cross Twitter [Twitter posts]. Retrieved from https://twitter.com/RedCross?ref_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Eauthor

@SalvationArmyUS (2016, October 3-October 31). The Salvation Army USA Twitter [Twitter posts]. Retrieved from https://twitter.com/SalvationArmyUS?ref_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Eauthor

@HopeForHaiti (2016, October 3-October 31). Hope for Haiti Twitter [Twitter posts]. Retrieved from https://twitter.com/hopeforhaiti?lang=en

@WorldVision (2016, October 3-October 31). World Vision Haiti Twitter [Twitter posts]. Retrieved from https://twitter.com/WorldVision

Appendix A

Crisis Response Strategies, by Posture (Coombs, 2015)

	Denial Posture
Attacking the Accuser	The crisis manger confronts the person or group that claims that a crisis exists. The response may include a threat to use force (e.g., a lawsuit) against the accuser.
Denial	The crisis manager states that no crisis exists. The response may include explaining why there is no crisis.
Scapegoating	Some other person or group outside of the organization is blamed for the crisis.
	Diminishment Posture
Excusing	The crisis manager tries to minimize the organization's responsibility for the crisis. The response can include denying any intention to do harm or claiming that the organization had no control of the events that led to the crisis.
Justification	The crisis manager tries to minimize the perceived damage associated with the crisis. The response can include stating that there were no serious damages or injuries or claiming that the victims deserved what they received.
	Rebuilding Posture
Compensation	The organization provides money or other gifts to the victims.
Apology	The crisis manager publicly states that the organization takes full responsibility for the crisis and asks for forgiveness.
	Bolstering Posture
Reminding	The organization tells stakeholders about its past good works.
Ingratiation	The organization praises stakeholders.
Victimage	The organization explains how it too is a victim of the crisis.

Appendix B

SCCT Recommendations for Crisis Response Selection (Coombs, 2015)

1. Provide instructing information to all victims or potential victims in the form of warnings and directions for protecting themselves from harm.
2. Provide adjusting information to victims by expressing concern for them and providing corrective action when possible.
   Note: providing instructing and adjusting information is enough of a response for victim crises in an organization with no crisis history or unfavorable prior reputation.
3. Use diminishment strategies for accident crises when there is no crisis history or unfavorable prior reputation.
4. Use diminishment strategies for victim crises when there is a crisis history or unfavorable prior reputation.
5. Use rebuilding strategies for accident crises when there is a crisis history or unfavorable prior reputation.
6. Use rebuilding strategies for any preventable crisis.
7. Use denial strategies for rumor crises.
8. Use denial strategies in challenges when the challenge is unwarranted.
9. Use corrective action (adjusting information) in challenges when other stakeholders are likely to support the challenge.
10. Use reinforcing strategies as supplements to the other response strategies.
11. The victimage response strategy should be used only with the victim cluster.
12. To be consistent, do not mix denial strategies with either diminishment or rebuilding strategies.
13. Diminishment and rebuilding strategies can be used in combinations with one another.