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Optimizing Social Media in Humanitarian Crisis Responses

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The genesis of the internet has led to a new technological age that is quickly connecting the world. The enormity of the internet's potential is difficult to fully comprehend, even for the innovators who developed it. Over time, some internet "mainstays" have begun to gain wide acceptance as fundamental building blocks allowing for improved and meaningful interaction. Some of these mainstays include search engines, online marketplaces, and the topic of this essay: social media websites. There are certainly many advantages to social media sites, but some aspects of social media—such as anonymity and a lack of proper verification methods—are leading to skepticism among the academic community over how to optimize its use for the greater good of society. This essay will look in-depth at how social media use can improve responses to humanitarian emergencies.

In order to further the academic dialogue concerning social media in humanitarian situations, this paper will first evaluate past related literature. Because social media is such a recent phenomenon, most research related to it is still in its infancy, and the research that has been published is mainly focused on observations during particular humanitarian crises. This paper will evaluate the sparse literature that does exist concerning social media and humanitarianism, which can be divided into three main debates: the trustworthiness of social media sources, the difficulties of implementing social media in crisis situations, and the ways we can analyze social media data and testimonies. Additionally, this paper will analyze several recent crises where social media played a notable role in the response efforts. The case studies— the 2010 earthquake in Haiti, and election fallouts in Iran (2009) and Kenya (2008)—give a diversity of locations and types of crises. In analyzing the academic framework and case studies,

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this paper will break down humanitarian communication into four levels: within, without, outside looking in, and inside looking out. It then will describe how each category is affected by social media. This leads to a section on the general and situational barriers to integrating social media in humanitarian responses. By looking at the potential of social media and the barriers to implementation, this paper puts forth three prescriptions for optimizing social media in humanitarian responses:

1. Establish an information aggregation website that can receive data from numerous sources and quickly process and analyze it in real time.

2. Encourage humanitarian actors to involve local groups in crafting communications strategy with the available resources.

3. Focus future research on social media postings and how to identify and respond to trends during humanitarian responses.

These actions will make responders more coordinated with each other and more agile in reacting to information as it comes in. By improving our understanding and use of social media, we can respond quicker and avoid being reliant on slower-moving "official accounts", perhaps saving more lives as a result.

Background

The term "Social Media", much like the websites the term denotes, is constantly changing and fluid in its purpose and composition. The label has been used for a large number of internet entities, so much so that the uniting thread between them is fairly simple: instant communication and interaction. This can mean a lot of things, but the real upstart of social media

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as a widespread phenomenon is linked to a specific change in thinking about the internet, termed by electronic information design consultant Darcy DiNucci as "Web 2.0" (DiNucci, 1999). This idea of shifting away from centralized websites and towards user-generated content slowly pushed the internet towards what we know today as social media.

There are many types of social media websites, varying greatly in style and purpose but nonetheless underneath the umbrella of sites that enable user-based sharing and communication. Social networking sites like Facebook and Twitter allow users to amass "friends" or "followers" who will see and be allowed to comment on user activity. "User activity" can include simple thoughts on the day, links to photos and videos, articles from other websites, and much more. Content hosting sites like YouTube and Photobucket are similar in nature, but focus more on clean display of content. They allow users to upload videos and photos for anybody to see.

Another notable social media category is the information exchange-focused web world, typified by sites like Digg, Reddit, and Stumbleupon. Such sites' users identify intriguing and relevant items on the internet—articles, videos, etc.—and allow users to vote them "up" or "down" depending on whether they feel it should be more or less prominently displayed.

Social media has not been without its critiques, as cultural observers have come to question its effect on depth of thought and attention spans. The natures of sites like Facebook and Twitter capture tiny bits of life in 140-character bits and pieces. The most watched YouTube videos are rarely longer than a couple of minutes, perhaps because its layout includes "suggested videos" and encourages flipping between endless arrays of short, easy-to-digest media content. Considering the characteristics of traditional news media, which itself relies on short sound bites and flashy production values to keep viewers from flipping the channel, the case can be made

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that social media websites foster an anti-critical atmosphere in modern society to an even further degree (Rodgers, 2005).

Despite its flaws, it seems certain that social media will only become more widespread, accessible, and important in the workings of society as technology continues to grow. In response, scholars have begun to research the ways in which social media may help in humanitarian emergencies as a way of improving overall responses to crises. While this research is in its infancy, it has clustered around certain specific barriers that exist for using social media in humanitarian crises. This next section will address the three main academic debates on social media and humanitarianism: evaluating the trustworthiness of social media sources, incorporating social media in crisis responses, and interpreting and using social media data and testimonies.

Literature Review

One of the primary concerns associated with social media is the reliability of the information that is transmitted. Because social media's primary attribute is immediacy, it is impossible to have a verification mechanism that would be able to evaluate the truthfulness of every tweet and status update. However, this should not be considered reason enough to avoid relying on social media information—there is simply too much potential within social media to ignore. Scholars have taken different approaches to understand and adapt to the reliability gap in social media.

Determining how to analyze and use the waves of social media data commonly found during humanitarian crises is a big step in utilizing social media to its full potential. The

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difficulty is how to assess the quality of information—whether good or bad, intentionally misleading or not—in a situation where massive amounts of data are pouring in. According to one study, the answer is found by use of "everyday analytic skills" typically used during crises; these skills may be improved with practice and could be supplemented by the development of "analytical support tools," (Palen, Vieweg, & Anderson, 2011). They say that the importance of developing such tools cannot be understated, as "people will increasingly incorporate information from digital sources into decision making and assess it against the local circumstances they experience," (60). This study focused primarily on how amateur social media reporting can lead to better understanding of the situation among responding organizations. While the ability to process reliability from an organizational standpoint is important to improve future humanitarian responses, it also only accounts for one level of the social media interaction sphere. As risk communication specialist Nathan Huebner described in a recent Social Media roundtable, "Social media is obviously about more than how we reach out to the public and educate the public…it's about the public talking to us. It's also about the public talking to the public," (Currie, et al., 2009). Despite the difficulties of social media data verification, there are nonetheless many other aspects of social media that are also important and rely less on unverified accounts of crises.

Another concern with social media reporting is the way that medium and circumstances can affect message. Schultz, Utz, and Goritz recently completed a public relations study on how variances in message and medium affected reaction and response to crisis situations (2011). Their findings indicated that the medium of a message has specific, consistent effects in three measures: reputation, secondary crisis communication, and reactions. Meanwhile, an identical message across different media does not have the same uniform effects. The study illustrates that

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social media is viewed with a unique understanding of credibility—perhaps one of less official reputation, but nonetheless seen as timely and reactive to the issues of the moment.

This unique view of social media's credibility has a direct effect on crisis managers' ability to control messaging. In the wake of the Virginia Tech shooting of 2007, public relations officials from the school found it difficult to control the message of traditional media coverage, largely because newspapers and television news networks were more likely to use "citizen generated content" during the first stage of the crisis, and more likely to use non-official sources than official sources for overall coverage (Wigley & Fontenot, 2010). Several implications arise from this conclusion. First, social media allows for peoples' gut reactions to an incident before it has a chance to get framed by public relations officials. Second, greater value has been placed on the experiential details of crises as opposed to official facts and figures. Third, skepticism about overly-polished PR statements may lead people to seek out unofficial sources, despite the lack of verification mechanisms.

While social media may offer certain advantages over other information sources, its benefits can only be helpful if it is implemented properly. Many challenges exist for integrating social media within humanitarian responses, especially in areas with less technological development and in crisis situations that result in internet and power failures. However, if the proper means are used, "It speeds up communication, and, for all practical purposes, it speeds up awareness," according to American Public Health Association Executive Director Georges Benjamin (Currie, et al., 2009). This section will look at the opportunities presented by social media, the difficulties of implementation, and some of the unique ways people have started to use social media to improve humanitarian responses.

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At the 2009 National Association of Government Communicators roundtable on social media in times of crisis, one of the few points that all participants agreed upon was that social media undoubtedly presents an opportunity to improve crisis communication.

> While the public has flocked to the Internet and smart phones with access to online content, the emergency community has only begun to catch up. Yet, as the survey data suggests, there is a definite trend toward adoption—and more importantly, toward strategic implementation. (Currie, et al., 2009)

Participants found that one of the key benefits of social media is the ability to send critical information immediately to as many people as possible. Further, military research has shown that in times of crisis, information-sharing reduces fear because of a feeling of connectedness (Woodcock, 2009). That study goes on to point out that the decentralized nature of social networks is actually a strategic advantage, as it is much more difficult to completely shut down.

Despite these advantages, there is no clear path to implementing social media in humanitarian responses. The NAGC roundtable identified four main difficulties of social media integration: Private/Public Partnerships, Evaluation/Metrics, Capacity/Resources, and Social Media/Communications Strategy (Currie, et al., 2009). Partnerships can be difficult to come by, especially for international humanitarian crises, because of the ad hoc nature of responses as well as potential distrust of international actors. Evaluation poses difficulties because of the massive amount of immediate data verification necessary. Resources are problematic because of technology failures during natural disasters and potential state-sanctioned internet outages to prevent communication with the outside world, not to mention developing countries without internet access. Finally, a specific strategy must be formed and executed to assure maximum benefit—an unlikely prospect without serious thought about the methods of integration. Woodcock laments, "Unfortunately, public safety officials have not embraced Web 2.0

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technologies and are missing a great opportunity to engage the public and harness its collective power. With virtually no capital investment, public safety agencies can create an innovative partnership by capitalizing on tools the public uses everyday," (2009). While U.S. military officials may be behind in implementation, other groups have already begun to use social media constructively in crisis situations.

A notable advance in the use of social media can be found in the National Institute of Health's crisis mapping research (NIH, 2010). Headed by Dr. Rebecca Goolsby, their project analyzed different online crisis maps, where people were able to report incidents and contribute to an aggregated map of these reports. Goolsby notes that the basic technology—most prominently, texting—for this type of mapping is widely available, stating, "New communication pathways are changing the less wired world," (2010). She also addresses the reliability questions of social media, arguing that it is "reliable on the aggregate" because the large sample size negates any false "outliers". As maps become more established and reliable, they tend to become "community projects" that participants take ownership of and pride in.

Other groups, large and small, have integrated social media into their work as a way to improve humanitarian responses. Software engineer David Kobia was recently named the "Humanitarian of the Year" by Technology Review for his work on a software program, "Ushahidi," that allows users to upload news reports, facilitating later analysis and improvement upon responses (Greenwald, 2010). The technology has already been used in Sudan, Gaza, Haiti, and during the BP oil spill. Other scholars have researched how implementation of social media within NGO's often is divided into three stages: technology stage, mutual infusion stage, and service-led stage (Chang, Liao, Wang & Chang, 2010). This roadmap for social media

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implementation will certainly be adjusted in years to come, but provides a basic blueprint for how to go about incorporating it.

The data surrounding social media will continue to grow due to frequency of use and increased incorporation, but another difficulty of social media is how to navigate through this constant, often unfiltered mass of information. One proposal for doing so is the creation of the Crisis Oriented Search Engine (COSE), a program that collects and stores social media information during times of crisis (Novinger, 2010). Because social media sites only save so many pieces of activity, much of that data can be lost during emergencies because of high traffic volume. By saving this activity, we can look back and see minute-by-minute the type of information we received from everyday citizens, which may lead to better future synthesis of data.

The recurring theme of social media data analysis in the military and humanitarian arena is the fact that information-sharing is beneficial for all involved. In 2002, the Worldwide Civil Affairs Conference endorsed the idea of information sharing between humanitarian and military groups as "essential", stating that "Location and networking capacity of the military information-sharing function is critical to effective coordination," (US Institute of Peace). Since that conference, social media exploded in popularity and curiosity about real-time crisis data sharing led to Exercise24, an emergency simulation where social media and cloud computing technologies were stressed in order to improve reactions. Social media technologies "equip the average citizen with the power of observation", and then empower them to upload those observations and compare them to the aggregation of other social media reports in order to choose the best course of action (Howe, 2010). The study's final conclusion reiterates our earlier stated points about the multiple levels of social media communications:

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> It is important that information sharing in a crisis occurs between individuals within government, between government employees and communities of interest, between researchers and government data, between the government and its citizens, and between governments of different countries. (Howe)

Sharing is most important because of the need for compiling as much information as possible to reach accurate conclusions. The social media boom is still extremely new from a research standpoint, and optimal use will require transparency and information-sharing in order to "synthesize the information into readily understood situational awareness models," (Howe).

To further establish that information sharing, research of social media aggregations, and piecewise implementation are necessary to optimize use of social media, this paper will now turn to several recent case studies where social media activity was particularly notable. These cases, Haiti during the 2010 earthquake, Iran during their 2009 election, and Kenya during their 2008 election, will illustrate how social media was used and the ways that social media might have been employed more successfully. This discussion will lead to an analysis of social media in specifically humanitarian crises, showing its effects, negative consequences, and potential for better implementation.

Case Studies

The earthquake that devastated Haiti in early 2010 combined many of the worst elements of humanitarian crises, as massive destruction and confusion rocked the island nation that had already been suffering from a lack of resources and infrastructure. Social media played a crucial role in the multi-faceted response efforts, connecting victims to aid workers, military officials to humanitarian NGOs, and concerned witnesses to the appropriate avenues for helping.

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This emergency serves as a clear example of how many distinct lines of communication are facilitated by social media. In addition to increasing access to news coverage, internet technology also expanded opportunities for volunteers, enhanced on-the-ground operations, and improved military-NGO coordination. Crisis mapping was better, quicker, and more widely available than in previous emergencies. Outsider participation was encouraged through Facebook and Twitter campaigns, as well as with simple fundraising efforts, where one could donate $10 to Haiti simply by sending one text message. The U.S. military worked with the World Food Programme to line up deliveries of aid shipments. Even ordinary citizens sitting at home could contribute to relief efforts by monitoring Twitter for missing person's reports and recording descriptions in a database. Though these efforts may have been somewhat linked to Haiti's geographic proximity to the United States, the fact remains that many aspects of the social media response efforts made a crucial difference in the alleviation of suffering (Slaugh, 2010).

Despite the successes of the social media response, there was still room for critique over the ways social media was and wasn't used. According to one study, both NGOs and news media organizations used social media well for information dissemination and disclosure. However, one shortcoming was the way that these groups did not capitalize on the two-way nature of social media (Muralidharan, Rasmussen, Patterson & Shin, 2011). Perhaps because of the dubious understanding of user report credibility, that information was underutilized. The same study also found that nonprofit social media transmissions generally conveyed a positive perspective, while news media reports carried a more negative tone. This is particularly surprising since it runs in contrast to one of David Rieff's criticisms of humanitarian aid organizations in 2002's <u>A Bed for the Night</u>: that they are overly reliant on hyper-negative portrayals of humanitarian crises as a way to influence donors.

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An example of social media use in a complex political emergency can be found in the wake of Iran's 2009 Presidential elections, suspected by many to be election fraud. The Iranian government used 20th century tactics to try and stop a 21st century social movement. In 2005, there were over 700,000 Persian language blogs, 60,000 of which were updated on a frequent basis (Mottahedeh, 2010). After the 2005 election, the Iranian government made a concerted effort to centralize the national media, a mistake considering that, as mentioned earlier, social media is a naturally decentralized entity. The 2009 election was marred by charges of fraud, and many took to Twitter to decry their outrage. Despite the Iranian government's efforts—cutting out SMS messaging and the Internet for a week after the elections—protests grew stronger, and pictures and videos of the discontent still made it to the web.

The Iranian election fraud most prominently highlighted how the "small stories" told on social media can galvanize the public to substantial action. Two examples prove this: the killing of Neda Soltan and the arrest of Majid Tavakoli. Neda Soltan, known throughout the world simply by her first name, which means "voice" or "calling", was an Iranian protester killed by gunshot at a rally (Mottahedeh). A video of the incident spread across the internet and became a symbol of the struggle against an anti-democratic Iranian government. Her story inspired many to speak up against the increasingly brutal rule of Mahmoud Ahmadinejad.

Majid Tavakoli was a student activist who also opposed the apparent election fraud in Iran. After giving a speech on the controversy, he was arrested, and a photo of him in a hijab—a traditional veil worn by females—was released by officials. Though the photo was intended to discredit Tavakoli as a coward who attempted to flee in women's clothes, the photo was imitated by many social media users as a sign of solidarity. Many people also tinted their Twitter and

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Facebook "profile pictures" a shade of green, the opposition movement's colour, to form a social media "sea of green" against the Iranian election fraud.

Once again, social media was employed in a humanitarian crisis, leading to results that could not have been achieved before the advent of Web 2.0. In previous generations, an authoritarian regime cutting off media and communications efforts may have quelled the outrage about election fraud. However, thanks to the connectedness of today's technology, and the inspirational stories of several protesters, the world's eyes turned to Iran. That being said, the social media campaign simply wasn't enough to bring about actual political change to the region. Political circumstances, international alliances, and fears over Iran's destructive capabilities all contributed to the inaction after the election. However, indications exist that change is possible in the future, as several other social media-influenced revolutions have taken place across the Middle East, confirming the importance of social media coordination in present day political movements.

Kenya's 2008 post-election crisis was similar in nature and in social media response to the Iran situation. The election, a closely contested race between incumbent Mwai Kibaki and opposition party candidate Raila Odinga turned to chaos after Kibaki was declared the winner amid Odingas claims that the electoral commission had "doctored the results," (Makinen & Wangu, 2008). The confusion deepened when internal security minister—and Kibaki ally—John Michuki imposed a ban on live broadcasts and SMS messaging, "in the interests of public safety and tranquility," (Reporters Without Borders, 2007).

Again, as in Iran, citizens actually became empowered by the traditional media limitations, using social media to organize, discuss, and report their personal experiences. The

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usual social media suspects were again in action: Facebook and Twitter for organizing and spreading awareness, YouTube and Flickr to distribute images from Kenya, and active crisis maps to show citizens where it is safe to be (Makinen & Wangu). A difficulty in these efforts is that Kenya does not have a large population with internet access—only 3.2%, according to Makinen and Wangu. They suggest that mobile phone technology may be more effective in less developed countries. The advantage of text messaging is that many more Kenyans have access to such technology; a difficulty is that there exists no centralized "text message board" where everyone can look at the aggregation of messages to determine the best course of action.

These three case studies have shown how social media has already made an impact on humanitarian crisis responses. Haiti showcased how many levels of communication can be facilitated through social media. Iran and Kenya both illustrate how traditional media shutdowns no longer can keep news from being transmitted. However, all three situations could have been executed better, and through more research and analysis of how past crises incorporated social media, the future of social media in humanitarian responses can be more effective, more efficient, and more catered to each specific situation.

Analysis

To analyze the ways that social media change how to execute humanitarian crisis responses, this paper will first look at the different levels of communication affected by social media. Highlighting examples from the case studies in each level, this paper will determine which levels of communication are particularly strong or weak in specific types of crisis. This will lead to a discussion of the negative consequences of social media and the most significant

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difficulties with integrating social media within humanitarian responses. This paper concludes with a number of prescriptions for improving the ways that social media gets used for crisis response.

One of the biggest impacts that social media have had in recent humanitarian crises is with visibility and how the world sees a crisis. This first category, the "outside looking in", is exemplified in the Haiti earthquake response as well as the political unrest in Kenya, Iran, and more recently, Egypt. Observers are able to get quicker, more colloquial descriptions of a crisis because social media users are reporting in real time how the situation is affecting their lives. Especially in times where political entities attempt to silence traditional media sources, social media is strong because of its decentralized nature. Even when the internet itself has been shut off, other technologies such as text messaging have been employed to show the world what is happening. Just as the advent of televised news pulled people closer to war-ravaged countries, social media connects humanity in an even more direct manner, leading to an even deeper level of dedication to humanitarian causes.

The second level of communication facilitated by social media is the "inside looking out" sphere, where victims and citizens of affected countries contact the outside world. The ability to tell the story of those on the ground experiencing the crisis is important for a variety of reasons. On a personal level, victims gain a sense of empowerment in being able to show the world what is happening to them. Especially in complex humanitarian emergencies, victims tend to feel surrounded and without allies, and the mere idea of others listening to their problems can be meaningful. Additionally, the "inside looking out" communication level can help aid organizations know what areas are most in need, leading to a more efficient distribution of assistance. When every victim has a defined role to play in a time of crisis, they are more likely

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to stay engaged instead of falling into complacency. In the Iran and Kenya case studies, this self-reporting was an extremely important role, since it was the only source for information on the unrest. Rebecca Goolsby's analysis on crisis mapping offers a similar conclusion, arguing that communities take pride and ownership of their crisis maps, leading to a united populace.

Communication within a humanitarian crisis is critical for a successful response. As observed earlier, most responders agree that a policy of transparent information-sharing is important to help coordinate aid distribution. While the "inside looking out" communication level is important for identifying high-need areas, it isn't enough if that information is hoarded by one group. A major success on the "communication within" level can be found in the Haiti case study, as the World Food Programme worked in conjunction with the U.S. military to distribute food aid quickly and efficiently in the highest-need areas. Also from Haiti, the person-location initiative—where volunteers would monitor social media feeds and record mentions of missing and found people—made it much easier to unite separated families. Especially in countries with little to no infrastructure, social media are helpful in keeping communication lines open.

The final level of communication—communication without—is most relevant for fundraising and spreading awareness about humanitarian crises. Many options are available for outside actors who want their personal networks to know (and care) about an emergency. Facebook and Twitter posts are the most obvious resource, especially since we know that those venues often flare up during important global events, the most recent example being the flurry of internet activity after the announcement that Osama bin Laden had been killed by U.S. forces. Beyond this, there are many other avenues to spread awareness: social media applications that solicit donations, YouTube and blog posts describing the importance of recent events, NGO

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websites that facilitate discussion about response efforts, emails to corporations that typically

supply aid in emergencies, and countless other humanitarian internet sites. A valuable aspect of

this communication level is that technological infrastructure is established across the affluent

world, so social media and internet fundraising efforts have the potential to be extremely

effective.

It would be ignorant to assume that the advent of social media yields only positive

consequences, especially considering how powerful and versatile modern technology has

become. After all, if the "good guys" can use communication to alleviate suffering and improve

response efficiency, then the "bad guys" can communicate ways to impart suffering. The recent

roundtable on social media and risk communications detailed one example of the unintended

negative consequences of modern technology, describing a terrorist attack in India that was

facilitated by a number of media and internet resources.

> The 10 gunmen, well armed with assault rifles and grenades,
> Richard Kolko [chief of the FBI's National Press Office] pointed
> out, 'were experts in communications as well.' Media outlets
> unintentionally interfered with police efforts by pinpointing for the
> terrorists where law enforcement was arriving by helicopter.
> Meanwhile, the terrorists had effectively used tools such as Google
> Earth maps and photos to scout a location before the deadly attack
> and used a GPS device to navigate across the Arabian Sea. (Currie,
> et al., 2009)

In that particular instance, social media were also their undoing, as text messages, tweets, and

Flickr photos were the first images of the attacks available to the world. The lesson remains:

terrorists and combatants are able to take advantage of social media. Terrorist networks like Al-

Qaeda have long been known to operate as a decentralized entity with "hubs" in different

locations; it would follow that they may benefit from decentralized communication methods.

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Another negative aspect of social media, partially addressed by Goolsby's "aggregation" theory, is that every post cannot be individually verified and processed. This can lead to false information, whether it is misinformation or disinformation, and a lack of legitimate reliability. It also means that reaction time to social media reports cannot be quite as "instant" as with verified sources. For example, with the recent killing of Osama bin Laden, there was actually a nearby onlooker who posted an account of the operation on Twitter as it was happening (Gross, 2011). Had Pakistani officials, or Al Qaeda sympathizers, for that matter, been able to instantly assess that information, they could have investigated the operation much earlier and perhaps changed the end outcome. This is not so much a "negative consequence" of social media as it is a reality about the venue. For now, we must analyze social media posts in large volume, spotting common trends in order to determine the truth.

In addition to the negative consequences of widely accessible social media, there also exist a number of fundamental roadblocks that currently prevent full integration of social media in humanitarian responses. Different roadblocks affect different levels of communication, and identifying how to eliminate or work around these roadblocks within each level will ensure that responses maximize the potential of social media. This section will focus on several significant roadblocks, analyzing their characteristics as we lead into prescriptions for expanded use of social media.

The most basic barrier preventing full use of social media is the lack of technological infrastructure in many areas of the world. The United States is undoubtedly the center of the social media universe; some argue that the main reason why Haiti received elevated social media attention is because of its geographic proximity (Muralidharan, Rasmussen, Patterson & Shin). While Western countries have incorporated the internet within daily life, many developing

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countries have little or no access to social media. Equally problematic, these countries often have much more pressing problems to deal with than spotty internet access. Expanding internet access to the entire world is a difficult task that requires an immense amount of upfront investment costs. It is likely that one day the entire world will be "online", but without massive funding from the Western world, that day remains far in the future.

Even for countries with an established internet infrastructure, consistent internet access during a time of crisis cannot be guaranteed. In the case of natural disasters, internet access is often wiped out by the emergency, perhaps even leading to greater confusion from people who rely on internet sources for disaster information. For complex humanitarian emergencies, as we've seen in Iran and Kenya, authoritarian figures may shut off internet access intentionally to prevent opposition groups from organizing. In either case, most of the established social media outlets are not accessible, making it much more difficult to communicate.

Many of the other main concerns for social media integration have already been addressed and repeated in the literature review and case studies. Not only access, but also reliability, information-sharing, social media use instruction, and data analysis are all major concerns that manifest themselves because of the unprecedented level of connectedness associated with social media. The expert roundtable on Social Media and Risk Communication identified four categories of issues that need resolution to ensure full integration: Public/Private Partnerships, Evaluation/Metrics, Capacity/Resources, and Social Media/Communications Strategy. We will use that framework to offer prescriptions for social media implementation in humanitarian crisis responses, exploring how those four categories interact with the four levels of communication.

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Addressing relationships between public and private entities in humanitarian responses is mainly related to the "without" and "outside looking in" levels, as the main concern is how different actors interact with each other. Several of our case studies confirm that in times of crisis, information-sharing is a mutually beneficial way for NGOs, militaries, and IOs can coordinate and identify particular areas of need. Furthermore, aggregating social media data helps analysts identify trends and create more accurate reports of the "on-the-ground" situation. This can lead to creation of better crisis maps that can in turn be distributed to crisis victims. To strengthen Private/Public Partnerships, I advocate for the creation of humanitarian databases, administrated by an independent organization, specifically in charge of processing and redistributing critical information as it rolls in.

Scholars have already proposed a number of ways to evaluate and measure social media data and its helpfulness in humanitarian interventions. In the long-term, mechanisms like Ushahidi and the Crisis Oriented Search Engine (COSE) are outstanding resources for evaluating how humanitarian crises unfolded and what actions had the most positive impact. This is clearly the "without" communication level, as outsider groups analyze how they intervened and what can be improved. The greater difficulty is the "in the moment" evaluation—a more complex relationship that involves the "inside looking out", "outside looking in", and "without" levels. Hypersensitivity to small bits of information can lead to mistakes, but waiting too long for confirmed trends is equally problematic, as the fear of being wrong may lead to hesitance during life-saving opportunities. An information-sharing database is again key, as is past humanitarian response research. If we hone our "everyday analytics" by evaluating other crises and understanding trends, we will be able to respond quicker when trends are starting to present themselves.

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Capacity and Resources are substantial barriers to social media integration in developing countries. Situated in the "within" and "inside looking out" communication levels, the reality is that very little can be changed in relation to resources once a crisis is underway. The long-term solution is obviously to get the entire world on the internet, but such a task is easier said than done. In the immediate future, humanitarian actors must recognize the resource limitations and take measures to compensate for the lack of certain social media outlets. Cell phone technology is much more commonplace in the developing world, and text messaging is very similar to Twitter and Facebook status updates, only directed to a specific phone number. By establishing and publicizing a "reporting hotline", responders can still aggregate victim reports and go about trend-spotting in a similar way to social media. It may even be possible to have a television feed with this information, perhaps even synthesized into a "crisis map" or another easily-digestible transmission.

Social Media and communications strategy is the most variable of the four challenges, as it depends on a number of situational factors including number of actors, severity of threat, and availability of resources. It is difficult to offer standardized prescriptions for communication strategy, but the main focus must be on giving agency to the local population. Even though this is situated in the "outside looking in" communication level, the ability of local officials and groups to understand and redistribute information is more important than the outsiders' organizational goals or priorities. If the message isn't relevant or maximally beneficial to its recipients, not only will it not be processed or distributed, but it may jeopardize future lines of communication. Because of this, local actors must be involved as much as possible in the communication strategy, to ensure that the information distribution is effective.

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Conclusion

The social media explosion of the last decade has had remarkable effects on many aspects of everyday life. Just as humanitarian crises became "closer to home" with the advent of televised news, social media has once again cut down the space between victims and witnesses. But while the potential for social media to help facilitate humanitarian response is great, there has been a degree of skepticism from scholars and humanitarian actors about its immediate usefulness. This essay has identified three main concerns related to social media: reliability of data, implementation within responses, and analysis of social media data.

Our case studies, the earthquake in Haiti and political unrest in Iran and Kenya, highlighted how multifaceted social media can be in impacting humanitarian crises. Response to the Haitian earthquake was extremely strong, and information sharing and cooperation between NGOs and states helped reunite family members and allocate food aid to the areas with the greatest need. Iran and Kenya both showed how social media gives victims agency and empowers them to organize and unite in spite of an authoritarian government. Overall, these cases highlighted how there are many ways social media can contribute to humanitarian responses, and how even if resource shortcomings limit certain avenues of communication. We identified four levels of communication that occur during humanitarian crises: within, without, inside looking out, and outside looking in. Each is unique, involves different actors, and can be helped by social media in different ways.

We concluded with several prescriptions for the future of social media in humanitarianism. First, we advocated for establishing an information aggregation website that can receive data from numerous sources (social media websites, NGOs, IOs, military groups)

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and quickly processes and analyzes them in a manner similar to the "Ushahidi" software program. Second, we encourage humanitarian actors to involve local groups in crafting a communications strategy. Despite the potential lack of social media resources at the crisis site, it is nonetheless important to stay linked in any way possible in order to ensure that all crisis communications are situation-appropriate and that credibility is not lost due to improper messaging. Finally, this paper strongly endorses future research on social media postings and their relation to humanitarian responses. There is a massive amount of data stored from recent humanitarian crises, and an equally massive amount of potential links and trends that can be identified. By evaluating timelines that incorporate social media data, timing of humanitarian responses, and local activity, responders can be better prepared for future crises and understand how the events correlate with one another. It is through practice, preparation, and familiarity that social media can be used to the fullest in humanitarian responses. Social media can be an extremely effective tool in these situations, and by optimizing its use, responders can better uphold the humanitarian imperative and alleviate suffering for more victims of humanitarian crises.

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Works Cited

Chang, Y.-J., Liao, R.-H., Wang, T.-Y., & Chang, Y.-S. (January 01, 2010). Action Research as a Bridge Between Two Worlds: Helping The NGOs and Humanitarian Agencies Adapt Technology to Their Needs. *Systemic Practice and Action Research, 23,* 3, 191-202

Currie, D., Fouse, D., Tinker, T., Association, A. P., Booz, A. &., University, G. W., et al. (2009). Social media and risk communications during times of crisis. McLean, VA: Booz Allen & Hamilton.

DiNucci, D. (1999). Fragmented Future. *Design and New Media* , pp. 32, 221-2.

Expert Round Table on Social Media and Risk Communication During Times of Crisis, Currie, D., Fouse, D., Tinker, T. L., American Public Health Association., Booz, Allen & Hamilton., George Washington University., ... National Association of Government Communicators (U.S.). (2009). *Social media and risk communications during times of crisis*. McLean, VA: Booz Allen Hamilton

Goolsby, R., & National Institutes of Health (U.S.). (2010).*Crisis maps and social behavior: How information from people will change crisis planning*. Bethesda, Md: National Institutes of Health

Greenwald, T. (January 01, 2010). Humanitarian of the year: David Kobia, 32: software that helps populations cope with crises: Ushahidi.(INTERNET). *Technology Review (cambridge, Mass.), 113,* 5.)

Gross, D. (2011, May 2). *Twitter user unkowingly reported bin Laden attack.* Retrieved May 2, 2011, from CNN.com: http://politicalticker.blogs.cnn.com/2011/05/02/twitter-user-unknowingly-reported-bin-laden-attack/?iref=allsearch

Howe, A. W. (2010). *Social cloud media and crowdsourcing in emergency management: An analytical review of Exercise24*. San Diego, Calif: San Diego State University

Mäkinen, M., & Wangu, K. M. (January 01, 2008). Social Media and Postelection Crisis in Kenya. *The International Journal of Press/politics, 13,* 3, 328-335

Mottahedeh, N. (January 01, 2010). Green Is the New Green: Social Media and the Post-Election Crisis in Iran, 2009. *New Politics, 13,* 1, 65-68.

Muralidharan, S., Rasmussen, L., Patterson, D., & Shin, J.-H. (June 01, 2011). Hope for Haiti: An analysis of Facebook and Twitter usage during the earthquake relief efforts. *Public Relations Review, 37,* 2, 175-177

Novinger, M. T. (2010). *COSE: Crisis Oriented Search Engine*. (Masters Abstracts International, 48-5.)

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Palen, L., Vieweg, S., & Anderson, K. M. (January 01, 2011). Supporting "Everyday Analysts" in Safety- and Time-Critical Situations. *The Information Society, 27,* 1, 52-62

Reporters without Borders. 2007. "Kenya: Government Imposes 'Dangerous and Counter-Productive' News Blackout." <http://allafrica.com/stories/200712310654.html>

Rieff, David. *A Bed for the Night: Humanitarianism in Crisis.* New York: Simon and Schuster, 2002

Rodgers, R. (2005), New media effects: Do formats organize networks?. *Complexity*, 10: 22-34.

Schultz, F., Utz, S., & Goritz, A. (March 01, 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

Slagh, C. (2010). *Managing chaos, 140 characters at a time: How the usage of social media in the 2010 Haiti crisis enhanced disaster relief.* Georgetown University, USA.

Wigley, S., & Fontenot, M. (June 01, 2010). Crisis managers losing control of the message: A pilot study of the Virginia Tech shooting. *Public Relations Review, 36,* 2, 187-189

Woodcock, J., & Naval Postgraduate School (U.S.). (2009). *Leveraging social media to engage the public in homeland security.* Monterey, California: Naval Postgraduate School

Worldwide Civil Affairs Conference, & United States Institute of Peace. (2002). *Good practices: Information sharing in complex emergencies : report from a roundtable on humanitarian-military information sharing : 2001 Worldwide Civil Affairs Conference.* Washington, DC: U.S. Institute of Peace

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