

Mastering Social Media: An Analysis of Jefferson County's Communications during the 2013 Colorado Floods

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ABSTRACT

We report on the social media communications and work practices of the Jefferson County Type III Incident Management Team during the September 2013 Colorado Floods. In this case study, we examine flood-related communications across three platforms: Facebook, Twitter, and the team's blog for insight into how this innovative team coordinated their communications to meet the information needs of a community outside of the media spotlight. Using a mixed method approach of interviews and social media content analysis, we describe their online behaviors in relation to the needs of the emergency response as a whole. We report on adaptations to their work practice that allowed them to extend traditional communications with social media to create an integrated communication plan. Finally, we look to the team's experiences for direction in how to use social media in emergencies generally.

Keywords

Crisis informatics, emergency management, public information, social media, trusted volunteers

INTRODUCTION

Information and communication technology (ICT), and specifically social media, provide additional means for people to receive information about emergencies beyond mass media and public meetings. Members of the public use it to communicate and share information with friends and family, gather timely and relevant information, seek assistance, and to provide assistance to others (Palen and Liu, 2007; Shklovski, Palen, and Sutton, 2008; Palen, Vieweg, Liu and Hughes, 2009, Qu, Wu and Wang, 2009; Heverin and Zach, 2010; Starbird and Palen, 2011; Perng, Büscher, Halvorsrud, Wood, Stiso, Ramirez, and Al-Akkad, 2012). However, when emergency response groups establish social media accounts, members of the public attend to them and pass on their posts as credible sources for the latest emergency information (Starbird and Palen, 2010). The public engages directly with emergency responders who are actively online, posing new opportunities and challenges for such groups (Denef, Bayerl and Klaptein, 2013; Hughes, St. Denis, Palen and Anderson, 2014).

However, public adoption of social media has far outpaced emergency management's capacity to adapt to it internally themselves. Relatively few groups use social media, in spite of a demand for "best practices" around social media use for emergency management. Lantonero and Shklovski (2011) examine how change happened in a fire department by way of a social media champion. A recent study of the online communication practices of the 840 fire and police departments within a 100 mile radius of the 2012 Hurricane Sandy landfall shows that a little more than a third of the departments (37%) had an account on any one of the online tools studied (Web, Facebook, Twitter or Nixle). Furthermore, use *during* and immediately after the disaster was even dramatically lower: only 7% used Twitter and 25% used Facebook (Hughes, et al. 2014).

This low level of use is likely due to a number of factors. Emergency management groups may lack official support for the use of social media, and with it, the resources for the necessary staffing. This may take the form of policies and procedures that prohibit the use of social media. It may also be that formal command and control procedures make the use of social media difficult or impractical (Palen and Liu, 2007). Without personnel resources that are free during emergencies, groups may be unable to communicate with the audience following they build up during times of peace (Hughes and Palen, 2011 and 2014). Additionally, social media practices during emergency response are perceived as sufficiently different than more routine forms of public communication. There are few role models for how to use social media effectively during an emergency. Experimentation comes at a cost when costs are already high.

Furthermore, though such groups are increasingly seeking “best practices” for social media use, we wonder if such an idea is somewhat premature. We question whether “best practices” over-constrains use during a phase of technological change that is inherently experimental. What we saw in Sandy shows how over-determination and rigidity of practice ultimately gets overruled by one’s own experiences: The Fire Department of New York (FDNY) notably changed their practice from first stating a clear policy that social media could not be used for 911-type reports, to conceding the need when 911 was overloaded at the height of the storm (Hughes, et al., 2014). Other emergency practitioners are experimenting with use of Virtual Operational Support Teams (VOST) to help manage the demands of social media interaction and monitoring during an emergency (St. Denis, Hughes, and Palen, 2012). These teams are formed through a flexible structuring of a distributed, skilled, pre-qualified often volunteer workforce.

We continue to explore these issues in recent events that affected the Denver Metro Front Range region of Colorado in September 2013, when the region was afflicted by dramatic rain storms and subsequent flash flooding. We focus in on how one county—Jefferson— somewhat outside the worst affected region conducted their communications work: though the county had damage, the amount was not nearly that of its neighbors. As an experienced county-level team for the fourth largest county in the state, they were able to put their communications expertise to a rather new problem: reaching their afflicted constituents and seeking mass media attention to then secure the state and federal level attention they also needed to get a formal disaster declaration. Because other counties were far more affected, the mass media attention was not on Jefferson County. These demands, their existing experience, and that their risks for flood damage were somewhat reduced created a set of conditions under which they could carefully experiment with new forms of social media use. In the end, they and others have described their communications practice, which included a fairly deep integration of social media, as highly effective, and this situation, though considered critically, is one we approach as a “height of practice” case.

THE STUDY

The Jefferson County Type III Incident Management Team

Overview. Jefferson County is the fourth most populous county in Colorado with an estimated population of 545,358 (2012 US Census Results) covering 773 square miles (see Figure 1). It is located just west of the City and County of Denver and directly south of Boulder County. The northeastern portion of Jefferson County incorporates several Denver Metro suburbs including Arvada, Wheat Ridge, Lakewood, Golden, and Morrison. The western and southern portions of the county contain the less-populated, unincorporated lands and communities in the foothills west and southwest of Denver.

The Jefferson County Type III Incident Management Team (IMT), part of the Jefferson County Sheriff’s Department, manages all major incidents in Jefferson County. This team is made up of full-time staff from the Sheriff’s office and county personnel that join the team during an activation.

Use of Social Media in Recent Disasters. The Jefferson County IMT first experimented with the use of social media during the 2011 Indian Gulch Fire, but they were not able to launch a full social media plan because of friction with the federal-level incident management team. The first full trial of what they now call their “Integrated Social Media Strategy” came later during the 2012 Lower North Fork Fire. The fire was originally started as a prescribed burn that spread when a cold front with 50 mph winds passed through the area spreading it across containment lines to receptive fuels where it ignited the wildfire. It burned 4,140 acres and resulted in three citizen fatalities, loss or damage to 25 homes and numerous outbuildings, and the evacuation of thousands of residents. The IMT used a blog and Twitter account as the primary communication platforms. They also created a Google map to share information about the fire perimeter, property damage, and the resource center for evacuees. They used Facebook to share information, but the content was not managed directly by them. The same tools and strategies were used again in the 2012 Bluebell and the 2013 Lime Gulch Fires.

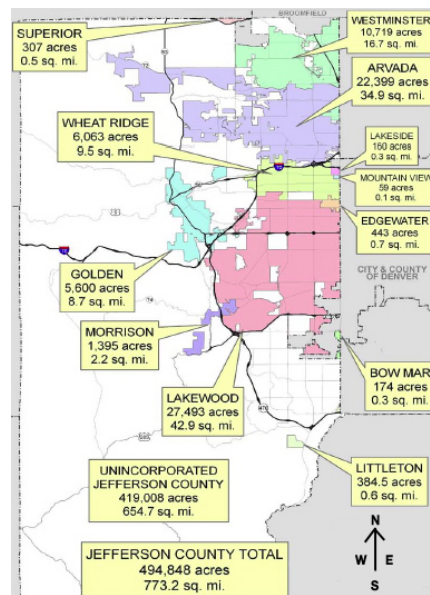


Figure 1. Jefferson County

By the time the JeffCo IMT was activated for the 2013 Floods, the subject of this paper, they added Facebook to their “Integrated Social Media Strategy,” and were in the process of formalizing a standing VOST team (St. Denis, et al., 2012). The accumulated experience and their interest in adopting the VOST protocol demonstrates a progressive orientation toward social media use going into the 2013 Colorado Floods.

The 2013 Colorado Flash Floods & their Impact on Jefferson County

The storm began on Monday, September 9th with steady rainfall forecasted throughout the week. On Wednesday, September 11th the storm intensified producing widespread flash flooding in the Denver-Boulder metro area. Mandatory evacuation orders were issued for parts of Boulder County—JeffCo’s neighbor to the north—including Four Mile Canyon, Jamestown, and portions of the University of Colorado Boulder campus. Residents in affected areas were encouraged to shelter in place. Residents of some towns and cities in Boulder and St. Vrain County were isolated because of severe road damage. The National Guard evacuated residents and pets from mountainous areas by air. FEMA approved a Major Disaster Declaration on Saturday, September 14th.

In Jefferson County, directly south of Boulder, storm conditions also caused damage, though to a lesser extent than their neighbors to the north. On September 12th at 6:24 am the Jefferson County Sheriff’s Office activated their “Emergency Blog.” Flash flood conditions in Coal Creek Canyon washed out portions of the road and damaged the natural gas supply. As the heavy rains continued, Bear Creek overflowed its banks flooding downtown Evergreen. Leyden Creek in Arvada overflowed its banks causing widespread flooding for the City of Arvada. Affected residents were notified via CodeRed, a notification system, and advised to “shelter in place,” a safe option, but one that can limit access to information if power is out, or cellular reception is limited.

Method

We conducted interviews with the JeffCo IMT less than 3 weeks after the height of the event. We conducted an initial interview with a member to gather information about their history of social media use and an overview of their use during 2013 Colorado Floods. We transcribed this interview and reviewed it to identify key topic areas for a group interview with members of the IMT, which happened one week later. During the group interview, all but three of the 8 members of the IMT were present. We conducted a group interview at the Sheriff’s office, focusing on five topical areas: 1) how they used social media during the 2013 Colorado Floods, 2) motivations for their use, 3) how social media is affecting communications with mass media and public, 4) integration of social media into formal response procedures, and 5) details about their employment of a Virtual Operational Support Team (VOST) into their future response. The group interview was video- and audio- recorded and transcribed.

Data Collection and Coding

We collected and analyzed the data from each of their online and social media accounts during the 2013 Colorado Floods. This included the Jefferson County Sheriff's Office Facebook page, the official Twitter account: @jeffcosherrifco, the VOST Twitter account: @JeffCoVOST, the Jefferson County Sheriff's Office Emergency Blog: <http://jeffcosherriff.blogspot.com>, the 2013 Colorado Floods Map, and the form used to gather photos and videos from the public. We also had access to the archive of the JeffCo VOST Skype chat to identify key communications from the VOST monitoring efforts.

Collection began on Thursday, September 12th when the first flood-related posts appeared, and ended on September 19th timed with the last blog update. The *2013 Jefferson County Flood Data Set* includes 115 blog posts, 361 tweets, 157 Facebook posts, and 11 Facebook albums containing 731 photos. We also analyzed the public's engagement on the JeffCo Facebook page and with their Twitter accounts. The *2013 Jefferson County Public Engagement Data Set* included 5125 Facebook likes, 1027 public Facebook comments, 169 Jefferson County Sheriff's Office Facebook comments, 54 public tweets and 49 reply tweets from the Jefferson County Sheriff's Office Twitter account.

Each post and tweet was coded for relevancy to the flood and the content was coded using a set of 8 topic categories and a set of sub-categories. The coding scheme was developed inductively with multiple passes over the data before settling on the final scheme. The first author coded all the data for consistency. The sub-categories allowed deeper analysis within each category. Five of the categories relate directly to emergency communication and emergency work. The remaining categories look at how the accounts are interconnected with one another and the relationship to other sources of information and the public (see Table 1).

Table 1: Content Categories

Category	Description
Hyperlinks & Explicit References	Hyperlink connections to sources of information during the storm or explicit references to other sources of information Sub-categories: Contact Information, CodeRed, Emergency Blog, External Sources, Facebook, Flood Map, Photo/Video, Submission Form, Internal Web
Online Engagement	Captures all types of online interactions such as mentioning other online accounts, reposting or retweeting official sources of information, sharing information in an online format (e.g. photos, videos, interactive maps), or engaging in direct conversation with the public through online tools Sub-categories: CodeRed, Emergency Blog, Facebook, Flood Map, Photo/Video, Reply, Request, Retweet, Thanks, Twitter (including follows and mentions),
Protocol	Descriptions of official emergency protocols (e.g. 911)
Public	Publicly generated comments or replies Sub-Categories: Comment (general), Feedback, Information Sharing, Reply, Thanks
Rumor	Messages addressing misinformation or rumor
Safety	All messages related to public safety Sub-categories: Flood, Fraud, Gas, Road, Water
Services	All message related to disruptions of utilities of government services Sub-categories: Natural Gas, Water Supply, US Mail
Status	Updates on changing conditions as a result of the storm Sub-categories: Closures (road, parks, schools), Emergency Response, Evacuation, Flood Conditions, Natural Gas, Resources, Water Supply, Weather

FINDINGS: QUANTITATIVE AND QUALITATIVE DESCRIPTIONS OF USE

The JeffCo IMT maintained a high level of engagement with the public throughout the floods. We make this claim by comparison to another recent, and far larger event: When compared with the online communications of the 840 police and fire departments in our Sandy study (Hughes, et al., 2014), the number of communications exceeded those of the departments in the Sandy study in half the timeframe. For example, the most active Twitter account during our Sandy study produced 303 tweets in 16 days whereas the JeffCo IMT produced 316

in eight days. The difference was even more pronounced on Facebook.

Each of the online tools serves a unique function in their communication plan. The team summarized it this way in their interview:

Twitter is for delivering the news, Facebook is where we talk about the news, and the blog is where we provide the details.

The JeffCo IMT produced a total of 619 messages over eight days: Twitter messages outnumbered Facebook and the emergency blog each day (Figure 1). This is consistent with prior research findings that when Twitter is used for sharing emergency information, the number of messages tends to outnumber the volume of communication on other online tools (Hughes, et al. 2014). This difference was the most pronounced during the first two days of the storm when conditions were the most volatile. Half of the messages (313) were sent on September 12-13; 64% of these were tweets.

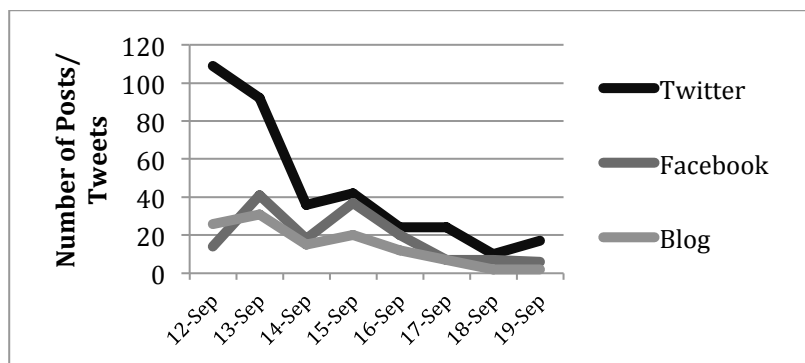


Figure 1 Summary of Daily Communications during the 2013 Floods

Twitter as Real-Time Notification Tool

The IMT reported that Twitter is unmatched in terms of getting the information out quickly to a broad audience. The Jefferson County IMT used multiple strategies for reaching their constituents: the use of relevant hashtags, frequent messages in the early days of the storm helped to establish a presence on Twitter, and hyperlinks within these tweets helped to establish the blog, Facebook page and map as valuable sources of information.

Hashtags are a convention developed in emergencies to allow people to monitor communications from multiple sources surrounding an event (Sutton, Palen, Shklovski, 2008). Nearly all tweets generated by the JeffCo Twitter account (with the exception of retweets and direct replies) contained at least one hashtag. There were 27 different hashtags used in all, but a small set of these were used for the duration of the floods. The primary hashtags were #ccc an abbreviation for Coal Creek Canyon Flood (185 times), #jeffcoflood (175 times), #jeffco (49 times), and #coflood (109 times).

A limitation of Twitter is the 140 character tweet limit. Often URLs are embedded within tweets to link to detailed information. The JeffCo Twitter dataset contained 169 links (47%). As we see in Figure 2, the largest number of links is to the blog.

The team stressed the technical skill and PIO experience required when crafting emergency tweet text. Each tweet has to function as a self-contained message. One of the team members summed it up this way:

"...that little 140 character message...has to stand all on it's own. If that tweet was put above the fold on the Denver Post without any of the tweets before it or any of the tweets behind it, it has to make sense."

When done well, they report that their tweets are picked up by mainstream media directly and shared verbatim on their web pages and across telecast news crawlers.

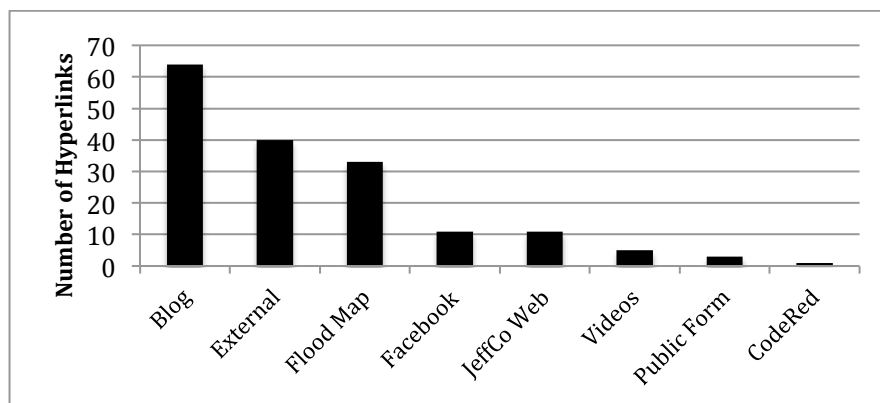


Figure 2 Hyperlinks Embedded in JeffCo Tweets

The Emergency Blog as the “Information Backbone”

The JeffCo IMT refers to the Emergency Blog as the “information backbone” of their communication plan. Most communications start with developing the content of the blog post and then adapting the content to other platforms. They describe it as a “living, breathing press release” that is continually updated as new information comes out. The content focuses exclusively on emergency updates and coverage generated by the PIO team. There is no facility for public comment, making the blog more formal than their other online tools. The format of the blog allows for an expanded narrative and deeper content than the other tools. Many of the posts have the format and style of a formal press release while other posts have more of a journalistic quality—reporting on a story from the incident management team’s perspective.

The blog acts as an information hub providing direct links to all sources of information: the Facebook page, Twitter, CodeRed, the Jefferson County Government website, a community resource list, and contact information for the Jefferson County Sheriff’s office.

Community Engagement on Facebook

The JeffCo IMT managed the content of the event’s Facebook page for the first time during the 2013 Colorado Floods (other groups were responsible for Facebook communications during events in 2011 and 2012). The team reports that they were impressed by the value that it added:

“We can have conversations with the citizens, and they with one another, in a public forum for all to see. Through this type of dialog you start to understand your community and what is important to them. That is invaluable.”

There were 1027 public comments and 5125 public likes distributed across the 150 flood related posts, 11 photo albums and 731 photos. These likes and comments were produced by 1761 unique user names.

Our coding scheme focused primarily on the questions and comments that were directed to the sheriff’s office, but that is only a small part of the communication on the Facebook page. We counted a total of 163 publicly generated questions on the page, but only about 87 of these were emergency response specific. The IMT was diligent about monitoring and answering these questions, but the public also actively participated. This was particularly true when the discussion was about information in photographs. Two of the albums contained a series of aerial photos, and the Sheriff’s department had limited information about where they were taken. Members of the public provided numerous replies pointing out landmarks and providing location-specific information. We counted a total of 98 public replies to questions, 77 informational posts, and 18 providing community feedback directly to the Sheriff’s department. This accounts for 35% of the public comments.

The remaining 65% of public comments demonstrate the value of the page as a forum for public conversation surrounding the floods. They used the page to check in with one another and report on personal welfare, offer sympathy, prayers or help to one another, and to talk about the effects of the floods on their community. In the album “Coal Creek Canyon Flood, September 12” we observe residents of the Canyon checking in with one another. As an illustrative example, in one photo there is an open mailbox full of mail in the middle of the flooding. The owner of the mailbox posted a message to a neighbor sheltering in place, asking them to retrieve the mail or shut the box. The neighbor replies that it was not safe to go to the box, and the next morning replies

again saying that the box is not longer even there and offers additional help

Intermingled within these comments are other neighbors' comments and even a little humor. These sorts of conversations illustrate the value of the page *as a place* to come together as a community. From the response perspective, these conversations provide direct insight into what is going on within the community.

The Importance of an Interactive Public Information Map

The JeffCo IMT Team created a Google map to provide public safety information; they explain that this kind of map is different than a hazards map that emergency professionals use and is tailored to usability. The team reports that geospatial representation is critical for communicating to the public. If they provide a good map, they find that people are able to effectively locate hazards and necessary resources which results in a measurable decrease in phone call volume. The map is interactive in that it allows the viewer to navigate and zoom. When other blog sites embed it, it updates automatically with their changes, which makes it additionally authoritative.

Gathering Photos and Videos from the Public

On September 14, the Jefferson County IMT published a Google Form requesting photos and videos of flood damage via a series of tweets. The form was integrated into the blog and posted four times to the Facebook page. The form standardized the submission process and captured source of photo/video, ownership, where taken, when taken, and optional contact information. They received about 57 responses to their request through either email or the form, which they used to document the severity of the flood conditions in Jefferson County. Part of the aim was to secure state and federal disaster declarations. Public response was a critical part of this process. With the submitter's permission, the photos were posted in a separate album on Facebook to make them public.

Emergency Work

Figure 3 shows a summary of the content distribution across the emergency blog, Facebook page, and Twitter by the primary responsibilities of emergency work as described in our coding scheme. Posts if necessary are assigned multiple content categories. The largest number of them related to closures where 89% of these messages referred to road closures. The smallest categories are fraud safety, 911 protocol, and rumor. We interpret this volume as an indication that rumor mitigation, fraud, and bypassing of protocol were not difficult to manage on social media during the floods. The Jefferson County IMT report that they were aware of rumors, particularly relating to resilience of local dams and water supplies, which they addressed through updates.

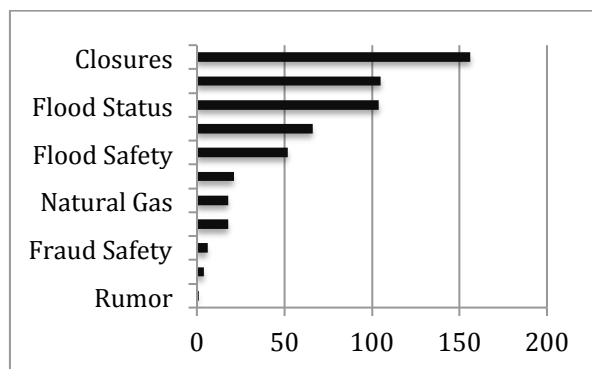


Figure 3. Topics that blog and social media posts contained (distribution of topics across all platforms was consistent)

VOST

Just before the 2013 Floods, the IMT was in the process of forming an official VOST (St. Denis et al., 2012). With the team members defined, but not trained, they decided to deploy the team for monitoring and message amplification purposes only. The VOST was active during the eight days of the activation, and provided extended social media monitoring coverage to the IMT. They looked for emergency requests by the public, as well as the spread of misinformation. The VOST made number of communication "catches." The most notable of these were fraudulent tweets asking for donations for the Colorado National Guard troops. The IMT then counteracted this misinformation across their online platforms.

The IMT is working on a formal training plan for the VOST to ensure that VOST members are well acquainted

with formal response procedures (through online FEMA certifications) and Jefferson County specific policies and procedures (through regularly scheduled virtual training sessions). The role of the VOST is likely to evolve as the team's skills level increases.

DISCUSSION

An "Integrated Social Media Plan"

The Jefferson County IMT refers to the coordinated content of their online tools as an "integrated social media plan." Although the content is similar, each platform is used for slightly different purposes. The emergency blog is activated only in an emergency and serves as the "information backbone" such that all communications going out on other channels refer back to it. Twitter provides real-time notification to the public as details change. Facebook is used as a persistent forum so that members of the community can comment on information, ask questions, and provide new information to the IMT team and the general community. The emergency map provides concise visual geospatial information. A Google form helped solicit information in a streamlined fashion from their constituents. They expanded their immediate team to include the newly formed VOST, which focused on extending their monitoring coverage.

A Community Sheltering in Place

Due to the severe flooding and dangerous conditions, residents in communities impacted by flooding were instructed to shelter in place. Widespread road closures made travel difficult or impossible. During the height of the storm, mass media coverage was focused primarily on the events in Boulder County and so Jefferson County residents could not get information that way. These conditions created a public communication challenge that is different than in the wildfires that more typically affect this region, where people must evacuate, and therefore congregate in public areas that public information officers can reach. The IMT reports that their social media plan helped them bridge this new information gap.

"We are Our Own Media"

In addition, their plan helped them be "their own [mass] media." The Jefferson County IMT found themselves supplementing the limited media coverage and soliciting information from the public to provide "homegrown" coverage of the storm. Because the media were focused on areas that had even greater impact, and because there were many locations they couldn't reach, the IMT employed their public information officers to act as journalists who reported their stories on the blog and shared the photos in albums on Facebook. This type of embedded reporting is becoming increasingly common during emergency response (Hughes and Palen, 2011)

An emergency blog post on September 15th titled: "Neighbors Helping Neighbors: Colorado National Guard on the Job" illustrates this nicely. Through the use of photos and narrative, the post tells the story of the Colorado National Guard helping residents of Coal Creek Canyon to protect their homes from flood waters. Photos show soldiers and neighbors working side-by-side building sandbag barriers. The format of the story is a clear departure from purely fact-based emergency communication:

Across the counties of the Front Range and Eastern Plains, the story is the same: neighbors helping neighbors, whether uniformed or in hip waders or flip flops. Amid destruction and tragedy, communities pull together to overcome whatever nature hurls at their doorsteps.

This sort of coverage provides an inside perspective that wouldn't have been possible otherwise.

Social Media Communication and Mainstream Media

The IMT team reports that maintaining personal relationships with mainstream media contacts remains critical, but most of their emergency communication is now done through social media. During the floods, they were not contacted by the media and they did not hold press conferences, yet the information they were posting online was being picked up and shared across mainstream media. Instead, all the local media agencies follow them on Twitter. The IMT reports that they observe their messages being shared verbatim across the local news crawlers within minutes of sending a tweet. They also uploaded video footage to YouTube and in some instances it aired on the local news. This type of behavior illustrates a shift in communication that minimizes the time it takes to get information to the public on both social media and mainstream media channels.

Balancing Command and Control with the Need for Immediacy

The communication plan has evolved to adapt to meet the information demands of the public. In the words of one of the IMT team leaders:

“The old days of ... having a press conference in the morning and sending out a press release and having a press release in the evening, those days are long gone. The public will not stand for it. When information is so readily available in the rest of their lives and [they] have a catastrophic event going on in their lives – it better be even more readily available!”

Making information available this quickly requires a more flexible organization within the command and control structure with more autonomy for the public information team. They establish this shift in communication style with the incident commander at the start of the activation.

“I think one of the keys to the success of this team is the ability of the team to communicate very proactively without seeking authorization from a higher authority. Under classical incident command everything that goes out has to be reviewed by the incident commander and that system does not work because you would have to be in there literally every 5-10 minutes and our team since it's inception has had the authority to proactively push information out and, only in the most serious of consequences, fatalities and things like that, do we go through that process where it's not time-sensitive, where it's not life-safety, evacuation notices and so that is very different.”

This shift requires a high level of trust between the incident commander and the incident management team, but it also requires a high level of trust between the team members and an efficient, open communication style. The team's working style has evolved so that they all work in close proximity to one another around a table and in close proximity to incident command. This allows them to share ideas easily and develop a shared awareness, much as we see in safety-critical mission control systems (Heath and Luff, 1992; Watts et al., 1996).

Monitoring Public Communication

The Jefferson County IMT believes that if a group is going to use social media, they must participate and interact in the larger conversation. The public expects a group with a Twitter presence to monitor their questions and concerns, and to respond. However, this kind of work is far more taxing than to simply push out messages.

A team could choose to ignore public communications and instead publish statements making it clear that the channel is not being monitored. However, the reality is that, despite clearly defined emergency protocols, requests for emergency assistance are being sent on social media channels (Hughes, et al., under review). For the Jefferson County IMT, they chose to do their best to monitor public communications and are part of a growing emergency response community that has chosen to do so. During the 2013 Colorado Floods, there were two incidents needing immediate response that were found during the monitoring effort.

CONCLUSION

The Jefferson County Type III Incident Management Team is in the minority of groups in the emergency response community that are developing and implementing a wide-berth strategy for integrating social media into their practices. They refer to it as their “Social Media Strategy” but clearly define it as an extension of their traditional communications. They plan to continue to hold press and citizen briefings and to maintain information within the community on the “trap lines” during their more typical wildfire hazards—the physical perimeter around a wildfire region that the public cannot cross. The explicit use of the phrase in the strategy “social media” is an indication of the novelty of what they are doing. From a broader perspective, we see that this team is developing an “Integrated Communications Plan” that extends traditional practice to meet changing information expectations through a wider range of options.

The 2013 Jefferson County Flood event highlights new possibilities for emergency response communication through ICTs. Their social media use as an extension of their traditional practices suggest there are opportunities to communicate quickly and efficiently with a broad audience. There are opportunities to craft the story and provide richer coverage—which proved to be important in circumstances where there is an information dearth. The public engagement on their Facebook page and on Twitter shows public receptiveness to this style of communication and growing expectations that responders provide some means of direct, public communication.

We should be looking to innovators such as these to see what lessons can be learned and understand where they can be applied. Through these experiences we can begin to understand the role that social media could potentially play in communications between emergency responders and the public.

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