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ABSTRACT

As emergency management agencies and organizations implement social media and web technology to support crisis information and communication efforts, many question if present strategies are beneficial. This is especially true if social media is being implemented for the first time or has not been experienced in a live disaster. Studies have been conducted providing information on a variety of interactions between Social Media and Emergency Management (SMEM). However, few have taken a formal scientific approach as a means of measurement providing a ‘Comprehensive Performance Metric.’ Performance metrics need to have consistency while providing room for implementing unique measurement criteria for individualized efforts. The authors offer a research design using field studies of real world cases, evaluating rural and metropolitan areas. The result produces a set of ‘Best Practices’ through implementation. By offering a means of measuring success, SMEM can continue to evolve by using a methodologically sound approach using social media.

Keywords: Action, Cases, Emergency, Management, Measuring, Media, Research, Social, Web 2.0

DOI: 10.4018/jiscrm.2012070101
1. INTRODUCTION

“Do not panic. Do not panic! We are trained professionals!” - Antz

Emergency Management (EM) is defined as “the application of science, technology, planning, and management to deal with extreme events” (Drabek, 1991). Disasters and/or catastrophes can impact entire communities for decades and tend to either unify or devastate a community. The 2004 Indian Ocean Earthquake, Hurricane Katrina in 2005, Haiti Earthquake of 2010, Iceland volcano 2010 (Eyjafjallajökull) and The Great Japan Eastern Earthquake of 2011 are all recent examples of communities that were impacted by a catastrophic event. To this day, residents in numerous areas as such, continue to deal with the aftermath. It is for this purpose that each person within the community is considered an EM stakeholder. This helps us to understand that EM is not simply an agency, department or division, but rather, a field that involves the entire community.

Due to the breadth and depth of stakeholders for each emergency manager, decision-making becomes a complex task. Each decision or non-decision has the potential to impact the entire community (Lindell, Prater, & Perry, 2007; White & Turoff, 2010). The key to making good decisions as a disaster unfolds is the ability to have a holistic view of the response efforts across the community. If an assessment of the situation occurs during the response phase, it is usually focused on intelligence or understanding the behavior of the hazard that is impacting the community and the people/property at risk (Lindell et al., 2007). An emergency manager constantly struggles with real time incident assessment, particularly if the event is extensive and requires a multi-disciplinary response. The goal of a real time situational information assessment is to create a Common Operational Picture (COP) across the entire area of impact. A COP is defined as “a single identical display of relevant information shared by more than one command to facilitate collaborative planning and to achieve situational awareness” (Misbah, 2009).

Social media was never intended to be used for emergency management (White, Plotnick, Kushma, Turoff, & Hiltz, 2009; Fugate, 2011). However, numerous studies support the notion that social media is an invaluable part of emergency response communication and information sharing efforts (Palen, Hiltz, & Liu, 2007; White et al., 2009; Starbird & Stamberger, 2010; Red Cross, 2010; Crowley & Chan, 2011; Fairfax County Web Metrics Report, 2011; Red Cross, 2011; White, 2011). These studies also confirm that the citizens use social media and have an expectation that EM officials monitor their respective social media sites for emergency information (Red Cross, 2010, 2011). However, at present, most emergency management agencies and officials do not have a formal social media strategy in place to accommodate the needs of its population. Social Media has the characteristics of flexibility, scalability, interoperability, and provides a common operating picture, which creates a robust system for providing information to citizens (Jennex, 2010). This type of two-way information and communication system also allows citizens to be utilized as a resource during all phases of emergency management thus meeting the demands of government directives using the community. This demonstrates the potential usefulness of SMEM in linking together both official and non-official crisis response channels.

The community, volunteer organizations, and news organizations are currently embracing social media, but EM is slow to adopt and implement it on a full scale. One can understand this hesitation, given the lack of guidance and quality assurance. As EM officials and agencies begin to implement social media, several questions need to be answered such as:

- How do you know a social media strategy is working?
- What is considered social media success?
- Does it work better than past methods of communication and information sharing?
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