



Social Media and Communication in Emergencies

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Summary

Emerging technologies have great impact on humanitarian actions. In this context, emergency response groups have recognized the potential of social media tools to enhance and facilitate communication, interact with public, get better situational awareness, and share lessons learned. Up to 2010 most research was focused on ICT integration in emergency communication plans, its positive and negative sides, with very little thought given to ad-hoc online volunteer networks and their role in emergencies. The paper describes the way social activists used Ushahidi platform to collect and disseminate crisis data and the impact it has on emergency management in general. It also offers directions for efficient use of social software that may benefit emergency preparedness and response, help decision makers to come up with the best possible solutions during a crisis, and improve relief efforts.

Key words: *Social media, emergency management, communication, Ushahidi.*

1. INTRODUCTION

The way we learn and interact, due to significant social media influence on our daily lives, is completely transformed. Nowadays we are all members of some social network that may be goal driven or not. Given that information travels in real time and reaches its wide audience quite rapidly, most government bodies, NGOs, volunteer organizations and individuals are using social media as their alternative or primary means of communication [1].

On a global scale, many emergency and humanitarian agencies are constantly working on various strategies and policies to incorporate social media tools efficiently into their crisis communication plans [2]. The change from traditional methods of communication to smart devices and wireless technology represents quite a challenge. There still may be certain limitations and weaknesses of using social media in this context [3], but most of these applications are free of charge and user-

friendly, and therefore, becoming highly popular among the emergency field practitioners, citizens of crisis-affected communities, and digital volunteer groups. Global organizations like UN OCHA, UNHCR, and WHO have recognized the potential of social media use in emergencies and have already acted based on data gathered and shared via Facebook, Twitter, Ushahidi, Sahana, etc. [4,5].

The first part of the paper shows the way digital volunteers used Ushahidi platform to create live crisis maps moments after Haiti earthquake in 2010 which helped first responders save lives, provide support to those in need, coordinate humanitarian aid, and so on [6], whereas the second part deals with general communication strategies and recommendations in emergencies that should be developed and used by emergency practitioners.

As stated in [7] even there were other significant Ushahidi deployments since 2010, the Ushahidi Haiti Project stands for a major milestone in crisis mapping. It demonstrated the power of ad hoc volunteer networks, which later influenced other humanitarian projects.

2. NEW TECHNOLOGIES IN EMERGENCIES

With the advancement of new technologies, new methods of communicating, or social media as we know it, came up. These electronic communication tools enable its users to collect, exchange, and share information, personal messages, images, video content, and much more in real time. With no time or geographic barriers, social media is the best communication channel nowadays. First-hand raw data coming from the other side of the globe is instant and offers better understanding of a situational context.

According to digital market research company eMarketer¹, by 2017 there will be over 2.5 billion social media users worldwide. Naturally, some platforms are more popular than others. The global leader is Facebook² with 1.55 billion monthly active users. Facebook allows its users to create pages and groups to inform public about an emergency, collect crisis information coming from different areas, track missing people, etc. In 2014 Facebook introduced Safety check feature - users can quickly alert friends and family that they are safe at times of crisis.

Twitter is ideal to report breaking news. Using hashtags on search terms, i.e. #floods or #earthquake, it is possible to find out information about a particular emergency event before mainstream media has had an opportunity to broadcast it. Also, Twitter introduced the Twitter Alerts feature to help users get important and accurate information from credible organizations during emergencies. Location-based services, such as Ushahidi and Google Maps, are widely used to mark users' locations in emergencies.

2.1 Ushahidi - A Crisis Mapping Tool

Ushahidi is an open-source platform helped to crowdsource information during Haiti's earthquake in January 2010. It collected data from different social media, such as Facebook and Twitter, which later were drawn on the Haiti crisis map. This map, supported by a digital volunteer network that included Haitian diaspora translating text messages from Creole and French to English, was used by humanitarian teams in their rescue missions [8]. Information pinned on the 'live' crisis map increased both the situational awareness and the crisis response. These valuable data were used by organizations like US Coast Guard, US Marine Corps, FEMA, and Red Cross in their rescue actions [9,10].

¹ Source: <http://www.emarketer.com>

² Source: Facebook as of 9/30/15

Many studies have discussed role and impact of digital humanitarians in the 2010 Haiti earthquake response [11-13]. The importance of the Haitian response is nicely described in [4]: "On the timeline of the Internet's evolution, the 2010 Haiti earthquake response will be remembered as the moment when the level of access to mobile and online communication enabled a kind of collective intelligence to emerge—when thousands of citizens around the world collaborated in volunteer and technical communities (V&TCs) to help make sense of a large scale calamity and give voice to an affected population".

Lessons learned after 2010 earthquake were focused on emergency organizations and crisis mappers joint cooperation in order to standardize ways of information aggregation and dissemination; building networks of trustworthy online sources and mapping vulnerable uncovered areas before a crisis strikes [13].

Since then, Ushahidi interactive mapping has been used to map the emergencies in Somalia and Libya, Japan's earthquake and Tsunami in 2011, Ebola outbreak in West Africa, Nepal's earthquake, and many more.

3. COMMUNICATION IN EMERGENCIES

Given that disasters are becoming more frequent and versatile, research on social media use in this context is progressing [14].

An organization with active presence in social media world should have a developed strategy that clearly reflects its mission. Most emergency agencies and services use their Facebook accounts to offer some basic tips on how to behave and react in dangerous situations as shown on US Environmental Protection Agency and Federal Emergency Management Agency (FEMA) Facebook pages.

By updating their profiles with useful information on a daily basis, not just during a crisis, they build a culture of transparent communication and earn public's trust. Their followers always come back for more valuable up-to-date information, engage in virtual discussions, and share data on other popular networks. The published content often includes images and infographics which increase its understanding.

Organizations within the emergency field should carefully plan how to utilize social media in times before, during and after crises. Various educational trainings, e.g. workshops, seminars, and drills, can help prepare the right communication tactics to reach maximum possible audience in order to successfully collect and disseminate large amounts of correct crisis data in (near) real time. These communication tests can greatly help in improving emergency preparedness and response, reduce crisis costs, and influence decision-making process [15].

Authors of [2] advise that "realistic drills are the best way of evaluating the readiness of an organization to respond to an actual crisis. An exercise like this provides an ideal opportunity to test the technologies that will be used to aid communication".

These tests, besides saving time and money, provide valuable insight into understanding crises dimensions [16].

According to CDAC Network's report on Social Media in Emergencies, top reasons why organizations should incorporate social media in an emergency setting are to provide lifesaving information, to collect information useful for the response, engage affected communities, help communities to help themselves, manage expectations and let people know what they are doing [17].

If social media space is exploited properly, the interaction among different emergency agencies, crises-affected communities and digital volunteer networks will be more productive which is crucial in times of crisis.

4. CONCLUSION

This paper discusses social media application in emergencies. It offers general recommendations emergency organizations and other direct or indirect participants in crisis communication should implement in order to optimize its use during or after an unfortunate event. The efficient use of social media must be further developed and improved through educational trainings where necessary.

Given that social media is growing exponentially, more attention should be given to its usage in this context, with special attention to services that enable various types of geo-information.

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