THE ROLE OF SOCIAL MEDIA IN THE 2011 EAST JAPAN EARTHQUAKE AND TSUNAMI AND ITS POTENTIAL FUTURE APPLICATION

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1. BACKGROUND AND PURPOSE OF THE STUDY

During the 2011 East Japan Earthquake and Tsunami, newly popular social media such as Twitter and Facebook acted as a lifeline for directly affected individuals, a means of information sharing, and a way for people inside and outside Japan to volunteer and to provide information-based support to those affected individuals. Social media was used to perform vital relief functions such as safety identification, displaced-persons locating, damage information provision, support for disabled individuals, volunteer organization, fund-raising, and moral support systems as well as others. This study discusses the potential for involvement in disaster preparedness and response utilizing social media by public, civil society, and government organizations.

2. METHODOLOGY

This research study was performed as follows: first, literature review of social media use in disasters was performed. Second, an extensive quantitative online questionnaire survey was undertaken. Based on the literature review, the following factors were identified to measure the experiences of users of social media during disaster: *information, motivation, problems, evaluation*, and *expectation.* In addition, based on the documented experiences of social media use in past disasters, the following categories of users of social media during disaster were identified: *non-user, non-sender, basic sender, volunteer sender*, and *manager sender*. The survey was made available for response on a webpage designed specifically for the survey over a one month period from September 13th to October 13th, 2011. In order to generate a specified response, the survey was distributed to groups and individuals identified as having utilized social media in the disaster. Following this, general appeals were made through the social networks Twitter and Facebook by contacting users who had shared information related to the disaster. The survey was made available to all regardless of location or use of social media in the disaster. The webpage for the survey was visited 1,538 times and 206 responses to the survey (156 in Japanese and 50 in English).

3. ANALYSIS AND FINDINGS

Key findings show that over 60% of non-affected individuals, nearly 80% of indirectly affected individuals (individuals who were not affected, but had family or friends were affected), and over 55% of directly affected individuals (individuals who experienced the earthquake to a strong degree or had to evacuate due to the tsunami) responded that social media or the Internet was their most relied on source of information. While areas outside of the Tohoku region cited social media and the Internet combined at a rate near 70% (Kanto 71%, other areas in Japan 69%, areas outside of Japan 80%), individuals in the Tohoku region, the area affected by the tsunami, cited social media and the Internet combined at a much lower rate of 45%. Respondents in all areas in Japan evaluate "lack of trust in information" as the greatest problem associated with social media use in the disaster, with respondents in all locations rating it over 33%, whereas respondents outside of Japan rate it much lower at 14%. Users regardless of location (inside disaster areas and non-disaster areas) or level of affectedness (non-affected, indirectly affected, and directly affected) both overwhelmingly evaluate social media to be "helpful" or "extremely helpful" during the disaster at a combined rate of 94%. Support for government use of social media for respondents in the disaster affected areas (Tohoku and Kanto regions) is 95%, higher than those of other areas, which is over 84%. Support for government use of social media in disasters is extremely high, above 80% for individuals in all locations, levels of affectedness, and user roles.

4. WAY FORWARD

Given the overwhelming approval of social media in the disaster and the strong support for government use of social media in disasters, which has been demonstrated by this survey, as well as the strong likelihood that social media use will increase, it is recommended that organizations and governments become familiar with the associated tools and issues and create action plans to implement social media use in disaster preparedness and planning, so in case of disaster they may be ready to use it for disaster response and recovery.