Role of Online Communities in Recent Responses to Disasters: Tsunami, China, Katrina, and Haiti

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ABSTRACT

The initial response to the Indonesian Tsunami was from a handful of bloggers. This small group grew into a community which ultimately spanned the globe and played a critical role in coordinating communication and resources. A similar online community grew up in response to the Haiti Earthquake, to the Sichuan Earthquake in China in 2008, and the Yushu Earthquake in 2010 but not in response to Hurricane Katrina. The panel will explore the factors that encourage the formation of a community of practice, of interest, or of advocacy and the role of technology in the formation of natural response online communities. The response is often attributed to social computing, but is the technology simply an enabler of the natural response of communities? What factors contribute to sustaining a community after the initial disaster has passed? Are these online communities simply expanded, technology-enabled Hastily Formed Networks (HFN’s)? The panelists have direct experience working and studying recent response to disasters and will draw upon that experience to highlight the similarities and differences of particular disaster responses, and share their thoughts on how and what can be done to leverage communities and technology to effectively and efficiently respond to future disasters.

Keywords
Online communities, Disaster response, Communication, Community Response Grids, Hastily Formed Networks, Technology, Micro-blogging, Peer-to-peer emergency response, Earthquakes, Hurricane Katrina, China, Haiti, Tsunamis.

MODERATOR
Dr. Denise Bedford, Goodyear Professor of Knowledge Management, Kent State University

Biography
Denise Bedford, PhD, is the Goodyear Professor of Knowledge Management, at Kent State University. She is also adjunct professor, Communication Culture and Technology, Georgetown University, and the School of Communication and Information, University of Tennessee at Knoxville. Dr. Bedford recently retired from the World Bank where she was involved in a variety of information and business architecture projects, as well as semantic analysis and multilingual applications. Her current research interests include communities of practice, use of semantic analysis methods to characterize knowledge transfer, automated structured profiling of unstructured information, multilingual architectures, business rules engineering, and search architectures and governance models.

PANELIST

Mr. Iskandarsyah Bakri, creator of the Aceh IT Learning Center (video participant)
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Biography
Mr. Iskandarsyah Bakri is the creator of the Aceh IT Learning Center. He is a former Information Officer at the World Bank.

Tsunami Response, 2004
Mr. Iskandarsyah Bakri was one of three bloggers who mobilized the initial informal international response to the 2004 Indonesian Tsunami through their use of social media and informal networks. Mr. Bakri is from Bandah Aceh. Mr. Bakri was not only a key player in mobilizing the response to the Tsunami, but has been a critical player in rebuilding Aceh and its knowledge economy. Mr. Bakri will share his views on the critical roles of technology and communities not only in the disaster response but in the rebuilding work.

PANELIST

Ms. Tiantian Wang, Graduate Student, Communications, Culture and Technology, Georgetown University, Washington DC
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Biography

Tiantian Wang is a Master of Arts candidate in the Communication, Culture, and Technology program at Georgetown University. Her academic interest is in organizational communication and knowledge management. Before coming to Georgetown, she studied drama, film, and television literature at Tongji University in Shanghai and acquired practical experience working in media organizations. After the earthquake hit Sichuan Province, she went to Shifang City, located in one of the most severely damaged regions, and volunteered in the News Center of Shifang Earthquake Relief Headquarters. Following her volunteer work, she served as Administrative Assistant in the Department of Public Relations of the Shifang Municipal Government where she engaged in communicating with the public during the reconstruction of the city after the earthquake.

Sichuan Earthquake Response, 2008

Ms. Tiantian Wang will discuss her first-hand volunteer experience and analyze the emergency response at the News Center of Shifang Earthquake Relief Headquarters as a disaster community of practice.

• How was the center organized, under what domain?
• What constitutes the disaster community?
• Who are the members and how are they to be managed?
• What are the practices of the community?
• What kind of tools did they use to connect internally as well as externally?
• How is information and knowledge transferred and shared among the members?
• How is the knowledge generated during the event to be retained?
• What form does it take and what tools are to be used?

PANELIST

Dr. Yan Qu, Assistant Professor, College of Information Studies, University of Maryland, College Park
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Biography

Yan Qu, PhD, Assistant Professor at the College of Information Studies, University of Maryland, College Park. Her research interests are social computing, sensemaking and learning, information system design, human computer interaction, and emergency response systems. She has conducted several studies on online community’s response to major disasters. Immediately after 2008 Sichuan earthquake, she led a study examining the response of Chinese netizens’ responses to two major disasters: the 2008 Sichuan earthquake and the 2010 Yushu earthquake.

• What role does the online community play in disaster response?
• What lessons were learned that can be applied to the design of emergency response systems that harness the power of citizen participation?
• How does the behavior of the micro-blogging community compare with the online forum in their responses to disaster?

PANELIST

Dr. Dave Yates, Assistant Professor of Information Studies, University of Maryland, College Park
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Biography

Dave Yates, PhD, is Assistant Professor of Information Studies, University of Maryland. His research interests are the knowledge management implications of collaborative technologies used by organizations and social media in organizational and public contexts. Dr. Yates has published articles in journals such as Government Information Quarterly and Journal of the American Society for Information Science and Technology (JASIST). Additionally, he has consulted on the employment of collaborative technology and social media with industry, government, and non-governmental organizations.
The formal U.S. government response to the 2010 Haiti earthquake featured, for the first time ever, extensive use of social media such as wikis and collaborative workspaces. While existing communities employed these tools for their own knowledge sharing purposes, the open nature of these tools led to a never before experienced interconnectedness between response agencies that positively impacted the response effort. As a US Air Force reserve officer, Dr. Yates was called up to participate in the Haiti response and used the opportunity to conduct a bit of action research where he configured collaborative tools and studied their employment by a community of responders. Some of the key takeaways from this experience for knowledge and community research are:

- When properly employed, social media facilitate not only more efficient knowledge sharing within a community but transformational knowledge sharing between communities (or where no pre-established community exists)
- When not properly employed, social media are at best marginalized and at worst add needless complexity to the response effort
- In a disaster response, it is not always apparent which members of the community have the most important information at any given time. Thus social media tools must not only enable access to everyone's information but provide contextual cues for making sense of different perspectives quickly
- An issue for formalized communities is how to leverage the 'wisdom of the crowd', i.e. the public. Mechanisms such as trust, verification, and reciprocity which are always important for community information sharing dynamics are especially important in this case. Disaster response is a volatile, high stakes activity and close-knit communities such as police and fire departments, military units, and aid organizations, tasked with important responsibilities are not used to sharing information outside of their communities.

**PANELIST**

Dr. Erika Pryor, Assistant Professor, Department of Communication, Denison University, Graville Ohio  
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**Biography**

Erika Pryor, PhD, is Assistant Professor, Department of Communication, Denison University, Graville Ohio. Dr. Pryor earned her B.A. degree at Western Michigan University, Kalamazoo, MI and a Ph.D. from the University of Pittsburgh, Pittsburgh, PA. She has also studied at The DuBois Institute, at Harvard University and at New York University.

**Hurricane Katrina Response, 2004**

Dr. Pryor will share her insights into use of communications media in response to Hurricane Katrina in 2005. Almost a year after the Indonesian Tsunami of 2004, the use of social media and the mobilization of communities in response to disasters was not as widespread as it is today.

- What did we learn from the poor response to Katrina, and how has that influenced responses to disasters such as those in Haiti?
- Why were natural response communities not a factor in the Katrina emergency response?

**PROGRAM FORMAT AND AUDIENCE ENGAGEMENT**

Panelists will each frame the disaster response and the presence or absence of natural response online communities for their own topic. Led by the moderator, the panelists will jointly discuss and invite audience participation on the questions posed above. The panelists and the audience will share their thoughts on how and what can be done to leverage communities and technology to respond to future disasters. One panelist will participate via live video conference from Indonesia.