BUILDING RESILIENT COMMUNITIES: CREATING EFFECTIVE MULTI-CHANNEL COMMUNICATION DURING DISASTER RESPONSE AND RECOVERY



Vivienne Tippett¹, Dominique Greer², Amisha Mehta², Sharon Christensen³, Bill Duncan³, Amanda Stickley³, Paula Dootson²

¹Health Faculty, Queensland University of Technology, ²QUT Business School, Queensland University of Technology, ³Law Faculty, Queensland University of Technology

Our aim is to examine evidence-based strategies to motivate appropriate action and increase informed decision-making during the response and recovery phases of disasters. We combine expertise in communication, consumer psychology and marketing, disaster and emergency management, and law.



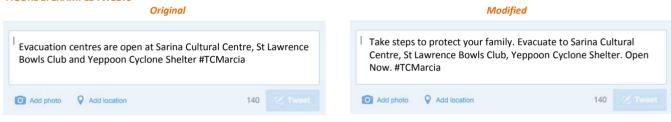
SOCIAL MEDIA ANALYSIS: EMERGENCY SERVICES MESSAGING

In a review of Twitter communication during Tropical Cyclone Marcia, on February 18-21, 2015, we examined how community members responded to emergency risk and warning messages.

The findings of the social media analysis suggest five opportunities for emergency services organisations:

- 1. Add extra precision to updates and instructions (see Figure 1)
- 2. Filter out noise and introduce #official as a hash tag to draw attention to important messages
- 3. Integrate stories that personalise risk and enhance self-efficacy to reflect trends in community tweets
- 4. Take advantage of affect and engage in preparation messages during recovery phase
- 5. Ground-truth to share knowledge about events and their impact to add accuracy and avoid familiarity bias for next disaster

FIGURE 1. EXAMPLE TWEETS



COMMUNITY FOCUS GROUPS: MESSAGE COMPREHENSION

The purpose of the community focus groups was to assess public comprehension of current emergency warning messages. We visited Hervey Bay, QLD; Brisbane, QLD; Melbourne, VIC; Dandenongs, VIC; and Kempsey, NSW. We used tsunami, severe storm, cyclone, fire, and flood emergency warning messages from our end users as stimuli for discussion. Findings from the focus groups are informing the message compliance experiments we will conduct in our next phase of research.

Flood Watch for Greater Melbourne Catchnesses (where the Management Catchnesses) and the Catchnesses (where the Management Catchnesses) are considered from the Catchnesses (where the Management Catchnesses) are considered from the Catchnesses (where the Catchnesses (where the Catchnesses) are considered from the Catchnesses (where the Catchnesses (where

Our preliminary impressions include the following:

- Visuals: community members actively seek out visuals as they help to personalise the risk by indicating likely affected areas
- Style: community members appreciate the use of bolding, headings, and text boxes to highlight important information; information is processed quicker and engages the reader for longer
- Timing: frequent (infrequent) updates implies high (low) severity of an event, potentially increasing (decreasing) perceptions of risk
- 4. Information seeking: an emergency warning triggers further information seeking rather than immediate action; people seek localised information to inform risk perceptions and actions; they are looking for confirmation that their potential action will be supported by others
- Damage/impact v strength: highlighting the potential damage/impact of the disaster rather than just the strength (e.g. 200km/hr winds will uproot trees) adds context to decisionmaking
- Familiar v unfamiliar events: individuals process the messages very differently; requiring more detail about unfamiliar events
- Aggregate the information: Not all states aggregate their warnings like in South Australia at <u>www.alert.sa.gov.au</u>, for example, but community members are often seeking a single source of "truth" or a common portal to aid decision-making.

END-USER - Andrew Richards, NSW SES

The way the project will be utilised by emergency services is in the form of best practice guides for communicating during the response and early recovery phases of a natural disaster via a number of channels, emergency warning templates modified to reflect experimental results on message framing and increasing individual-level compliance, and webinars addressing key issues in communication.

NEXT UP:

Experiments testing how an emergency warning can be framed to achieve the highest level of compliance by the community.





