

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



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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

Original	Modified

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.

Our preliminary impressions include the following:



1. **Visuals:** community members actively seek out visuals as they help to personalise the risk by indicating likely affected areas
2. **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
3. **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
5. **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 decision-making
6. **Familiar v unfamiliar events:** individuals process the messages very differently; requiring more detail about unfamiliar events
7. **Aggregate the information:** Not all states aggregate their warnings like in South Australia at www.alert.sa.gov.au, 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.

