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HAZARDSCRC

CONNECTING COMMUNITIES AND RESILIENCE: A MULTI-HAZARD STUDY OF PREPAREDNESS, RESPONSE AND RECOVERY COMMUNICATIONS

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Presented by Dr Dominique Greer

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An Australian Government Initiative



INTERDISCIPLINARY RESEARCH

The project aims to develop **evidence-based strategies that motivate appropriate action** and increase informed decision-making during the **response** and **recovery** phases of disasters.

Marketing and Communications

- Dominique Greer
- Amisha Mehta
- Paula Dootson

Law

- Sharon Christensen
- Bill Duncan
- Amanda Stickley

Emergency Management

- Vivienne Tippett

WORK PACKAGES TO DATE

1. Policy analysis of national, state, and local emergency management plans and relevant Acts
2. Social media analysis of emergency communications
3. Assessing message comprehension of emergency warnings
4. Experiments on message compliance

PACKAGE 1: POLICY ANALYSIS

Aim: Investigate coherence between Acts and the emergency management plans at national, state, and local levels to identify facilitators and inhibitors to communication in the response and early recovery phases of a natural hazard.

Key recommendations:

1. There is (dis)advantageous **flexibility** in regulation that may lead to architectural incoherence in the regulatory system but such flexibility may be necessary to **respond to complex situations** in chaotic systems that are not accounted for in policy but are within the resource constraints of the responding agency.
2. Not every situation can be planned for. When operationalizing policy in chaotic systems, **responders need to be empowered** to make their own judgments.
3. When **cross-agency cooperation** is required, horizontal alignment and prescription in regulatory components is especially important, as it creates the greatest opportunity for conflict between responding agencies leading to interaction complexity.

PACKAGE 2: SOCIAL MEDIA CASE STUDY

Aim: Explore the different ways in which different groups communicate during a natural disaster including the community, emergency services agencies, businesses, government agencies, and the media.

Key recommendations:

1. Add **precision** to updates and instructions
2. Integrate stories that **personalise** risk to reflect trends in community Tweets
3. Recognise power of emotions and engage in **preparation at appropriate times during recovery**
4. Ground-truth confirm cause of damage and overcome familiarity bias for next disaster – **anchoring for next event**

PACKAGE 3: COMMUNITY MESSAGE COMPREHENSION

Aim: Investigate how the community comprehend emergency warning messages

Key findings:

1. Remove **barriers** to information and make information easy to access.
2. Messages are personalised by naming the affected location and using visuals.
3. **Personalisation** of risk is the evacuation trigger.
4. Readability can be improved through **stylised** messages.
5. Messages should assume **no preparation, no hazard knowledge, and no geographic knowledge** to appeal to the majority of the population.
6. **Time** between updates is an unintended signal of risk.
7. Ensure **accuracy when cross posting messages** because individuals get their information from familiar sources, which are not always the official lead agency in an event.
8. The **presence** (and sometimes absence) of **responders** can lead to over-reliance on emergency responders or optimism bias that the event is being handled, which then delays community action.

PACKAGE 4: MESSAGE COMPLIANCE EXPERIMENTS

Aim: Add empirical depth to findings in the focus groups, generalising the findings, and testing best practice emergency warnings prior to field testing by end users

Work in progress:

1. Stylised messaging
2. Presence of responders
3. Time as proxy for severity
4. Message ordering

Also: Personalisation, deadlines, framing

UTILISATION PLANNING

National Review of Warnings and Information (2014) finding:

“It would appear that many practitioners are aware of a range of research and of many post-incident inquiries, but that few have time available to reflect upon and apply the findings. Continued effort to summarise, present and ‘make ready’ research for agencies to easily utilise would be valuable.”

1. Decision-support tool (aka. Warning Wizard)
2. Best practice emergency warning messages: through consulting, workshops or hard deliverable
3. Input to doctrinal documents
4. Auditing and compliance with best practice
5. Legacy content: reporting, podcast overviews, best practice messages

Dominique Greer

dominique.greer@qut.edu.au

QUT Business School

Queensland University of Technology

QUESTIONS OR COMMENTS?