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

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An Australian Government Initiative

PROJECT BACKGROUND

PROJECT OBJECTIVES
MULTI-HAZARD APPROACH

Preparedness and Planning

Response

Recovery

C7

C8

C8

PROJECT OVERVIEW

This project adopts a multi-method research design to:

- examine the content and delivery strategies of emergency messages

- develop evidence-based advice to guide trigger communications during hazards

- analyse the effectiveness and efficiency of official emergency messages in the response and recovery phases

- promote both community and end-user understanding of the psychological and legal motivators for maximising engagement with emergency instructions

- examine opportunities for application of new technology and communication systems (e.g., emerging digital and social media platforms) to maximise the comprehension and compliance of communities at risk.

DISPLAN POLICY ANALYSIS

- Reviewed all national, state, territory, and some local level disaster management plans and the results of major disaster enquiries.

- To identify any potential points for concern with respect to the *interpretation* and *implementation* of the plan during an emergency, as well as *any legal liability issues* surrounding inconsistencies between plans or between plans and source legislation.

DISPLAN POLICY ANALYSIS

Key takeaways:

- Variation across disaster plans re: activation conventions & little advice regarding communications

- No direct legal implications, but could result in operational issues, which can then lead to enquiries

DISPLAN POLICY ANALYSIS

National review of communications and warnings post-dated this report BUT

- appears to be a palate for improved coordination and consistency of public information provided during hazard/disaster events;

- agencies have variables access and/or utilisation of multiple channels of communication [NB: different channel/different construction/message consistency] & its not yet clear what the principles or standards of practice should be around use of social media

MESSAGE COMPLIANCE

Assumptions:

- 100% compliance is not achievable in any circumstance

- Messaging compliance may already be maximised ie: has hit a critical plateau where no further compliance could be achieved through message manipulation

- Shared responsibility

MESSAGE COMPLIANCE

The aspects of message style that influence an individual's understanding of the natural hazard, and increase message compliance include:

- Consistency
- Accuracy
- Certainty
- Clarity
- Specificity
- Guidance
- Provision of sufficient information
- Timeliness

MESSAGE COMPLIANCE

Message types include:

- direct-rational
- manipulation
- negative vs positive phrasing
- exchange appeals,
- normative appeals, and
- appeals to self.

Flood Evacuation Warning for Brushgrove, Cowper and Low Lying Areas of Woodford Island

As a result of the flood level predicted by the Bureau of Meteorology for Grafton Prince St gauge at Saturday 23 February 2013 the NSW State Emergency Service recommends that residents within the nominated areas should prepare to evacuate. It is also recommended to relocate livestock outside the impact area.

Residents should monitor the situation and be prepared to evacuate when instructed to do so. A Flood Evacuation Order will be issued by the NSW SES if evacuation is required.

To prepare for possible evacuation you should:

- Raise belongings by placing them on tables, beds and benches. Put electrical items on top. You may be able to place light weight items in the roof space.
- Collect together medicines, personal and financial documents, mementos and photos
- If possible, check to see if your neighbours need help
- Make arrangements for care of pets or other animals, or take your pets with you when you evacuate
- Take three days' supply of clothing and medicines
- Find out where to turn off the electricity and gas
- Continue to listen to a local radio station for updates

Don't walk ride or drive through floodwater – this is the main cause of death and injury during floods.

For emergency assistance telephone the NSW SES on 132500

MESSAGE COMPLIANCE

Message **source** : who and what channel

Individual differences
- demographics (age, gender, SES, education)
- mood
- self-efficacy
- past experiences

Situational variation
- hazard specific factors (strength of the hazard)
- strength of relationships with others involved individual's
- perceived right to resist compliance
- benefits to the individual and others from the individual's compliance,
- environmental cues or physical characteristics
- social setting.

MESSAGE COMPLIANCE FRAMEWORK
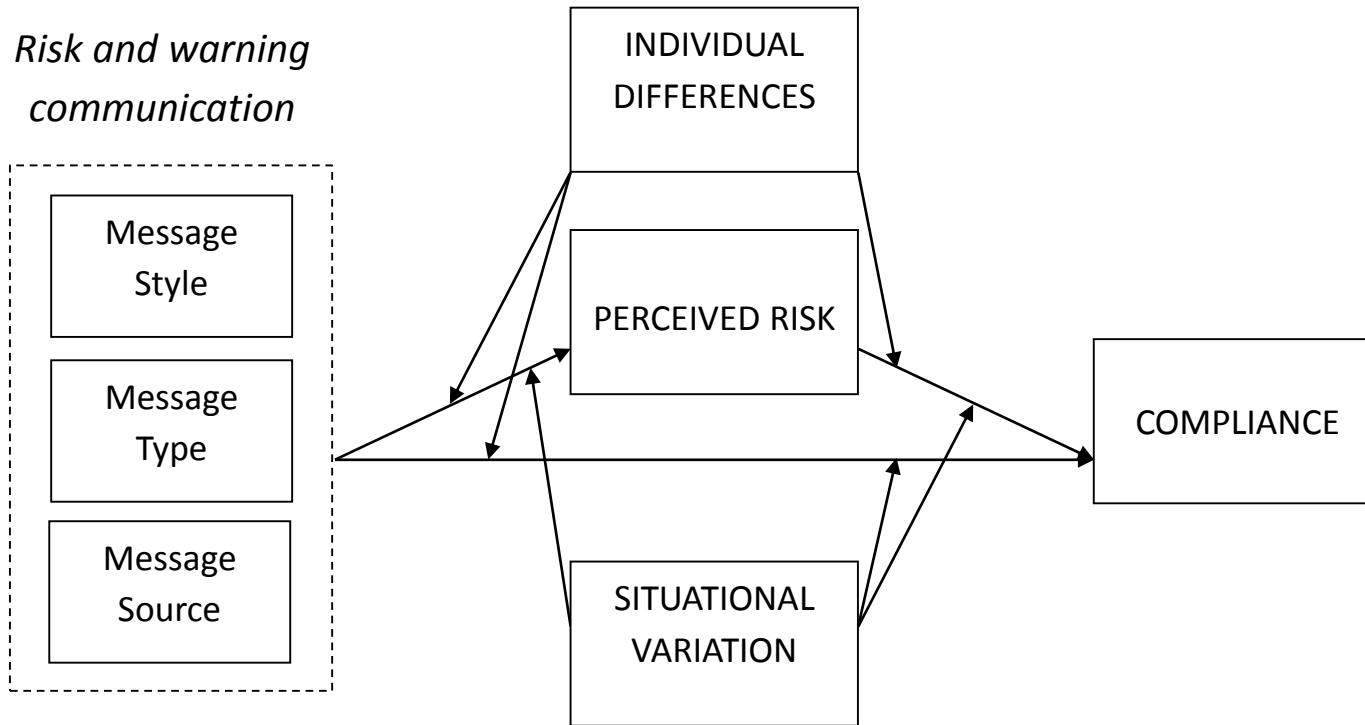
SOCIAL MEDIA PILOT

(A) EMERGENCY SERVICE AGENCY MESSAGING

- No universal # hashtag for disasters – mixed use by emergency services –what implications if any does this have?

- Largely informational messages

  a) Most of the content is in a link included in the message

    - **Q:** Are you checking the number of 'click -through'?

      - **There is an opportunity to test whether certain message types are more likely to result in a click-through than another.**

  b) Can lead to message fatigue – at what point do people stop looking for more information?

SOCIAL MEDIA PILOT

- Instructional messaging

  a) Direct-rational approach

  b) Others: appeals to self, exchange appeals, negative appeals, normative appeals, and positive appeals

  c) There is an opportunity to investigate which ones (used in social media and other channels) are more effective at achieving compliance

- Assumptions made about community knowledge

  a) "Time to enact your plan" – panic – I don't have a plan

  b) What does 50km/h winds mean?

  c) Use of 'warning' across hazards – has different meaning

(B) PRELIMINARY COMMUNITY SOCIAL MEDIA FINDINGS

Attention to risk communication

- Attention to emergency services Tweets challenged by share of voice with other participants and other events (e.g. TC Lam)
- Use of multiple hashtags (#Marcia, #TCMarcia, #CycloneMarcia)

Knowledge about event

- Informative Tweets dominate over instructive Tweets
- Community share information about likelihood and impact of event
- Some tolerance for uncertainty

Compliance

- Community demonstrate compliance, challenge non-compliance, show emotions relating to impact of event. Tweets reflect individual differences.

@REALMANSGUIDE: People in SEQ are buying supplies ahead of the #CycloneMarcia. Back in FNQ we used to play golf in a Cat.2... It's how'd you eagle a par 5!

SOCIAL MEDIA

1) What are the opportunities for "pull" as well as "push" messaging in this space? Ie: can members of the community inform operational analysis/decision making reliably?

2) What's the correct content for social media channel?

3) Consistent assessment protocols for measuring social media penetration and effectiveness

EXPERIMENTS

WOLLONGONG, MELBOURNE, BRISBANE + 2

To test understanding of and compliance with:

- Existing messages

  - Using templates and warnings that are commonly used by emergency services

- New messages, created by us from existing templates

  - Are certain messages more likely to achieve compliance than others, when framed in certain ways?

EXPECTED OUTCOMES

(1) Improved evidence base for maximum comprehension/compliance messaging eg: what language; which channels; what information?

Basis on which to review existing messaging templates OR develop new templates.

Might be delivered via:

- an aide memoir
- a Masterclass workshop curriculum
- modified templates in line with national warnings harmonisation

EXPECTED OUTCOMES

[2] Delivery of strategic advice about encouraging appropriate risk analysis/awareness .

How?

Provide information to the preparedness and planning group [C7]

Might be delivered via:

- Evidence based best practice advice

EXPECTED OUTCOMES

[3] Improved understanding of the interplay of multiple messaging channels & the impact of community messaging on official notifications

How could this inform protocol/guidelines for social media use?

EXPECTED OUTCOMES

[4] Improved understanding of the benefit of targeted segmentation of messaging to the community pre & immediate post event

Use of community champions to facilitate sub-population information/advice/instruction during hazard/disaster events.

Might be delivered via:

- Systematic messaging tool that allows for efficient message tailoring and real time learning

EXPECTED OUTCOMES

[5] Analysis of potential legal consequences

• This can inform the best practice advice

NEXT STEPS

1) Community focus groups (2015)

   a) Investigating community comprehension of emergency warnings.

   b) Explore community risk assessment & expected behavior

2) Experiments (2015)

3) Expert Delphi interviews (rolling)