A local lens on risk communication about severe weather

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Wireless emergency alerts v weather alerts

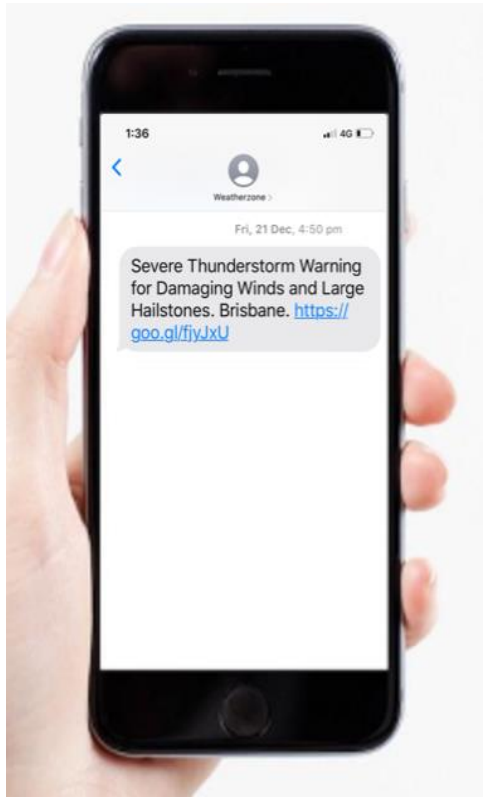
- Wireless emergency alerts are short and terse messages (Sutton et al., 2015)
  - Ideally, they should comprise source, guidance, hazard, location and time
- Most studies are based in the US or Europe and examine the provision of immediate protective actions (e.g., Bean et al., 2016), post-event evaluation of issued alerts (e.g., Gutteling et al., 2018), or false alarms (DeYoung et al., 2019)
- Existing studies consider words and maps (Liu et al., 2017)

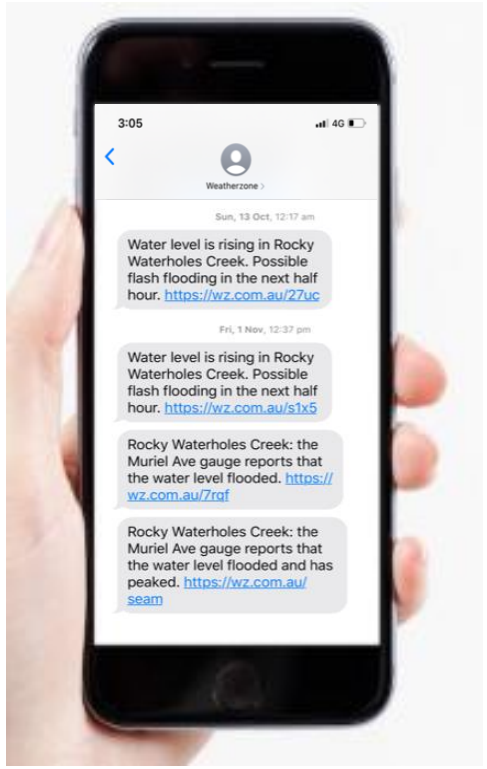
Contributions

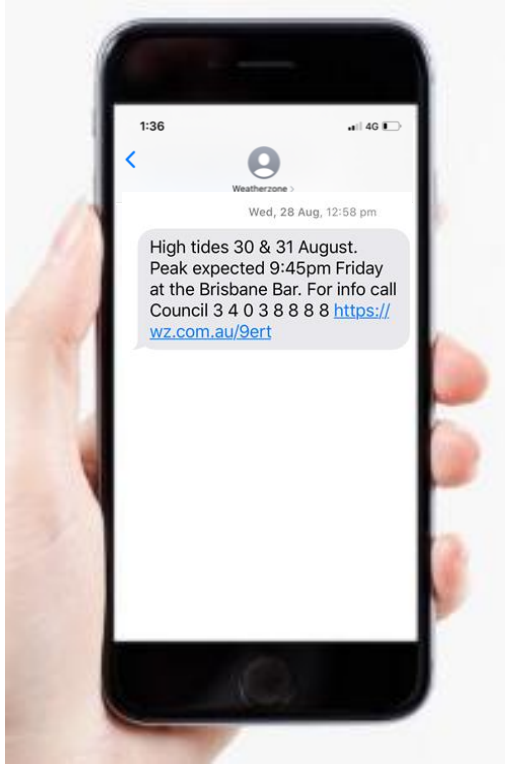
- Wireless alerts for severe weather in text and visual format

Existing alerts

- Lack of source (e.g., “BCC advises”)
- Identification of hazard (i.e., “rainfall” or “high tides”) with the majority further specifying the potential damage or impact
- Lack of instructions (or protective actions), though, this may only be particularly relevant for flash floods
- Location was noted in both specific and broad ways
- Some messages identified timing







Methodology

Audit of existing text-based alerts

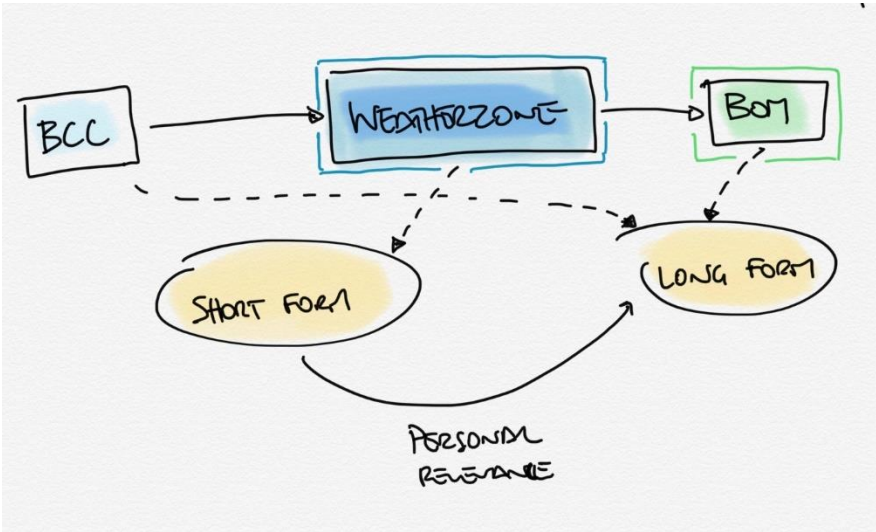
Mental models and co-design

Modes of data:

i. 8 x expert interviews

ii. 3 x community focus groups

iii. 3 x community co-design workshops



Interview, focus group and co-design findings

- Pre-alert mindset
  - Disaster management v event-based
  - Informed decision-making
- Source and share of voice
  - Brisbane City Council in URL
- Trust
  - Trust in information but more needed to make the link to Brisbane City Council

Comparative findings

Expert findings

Disaster management experts hoped or assumed community members understood weather behaviour and their personal risk ahead of weather events

Scientific understanding

Wanted community members to feel alert and confident in message

Convergence

Protective action set

Information sources

Community findings

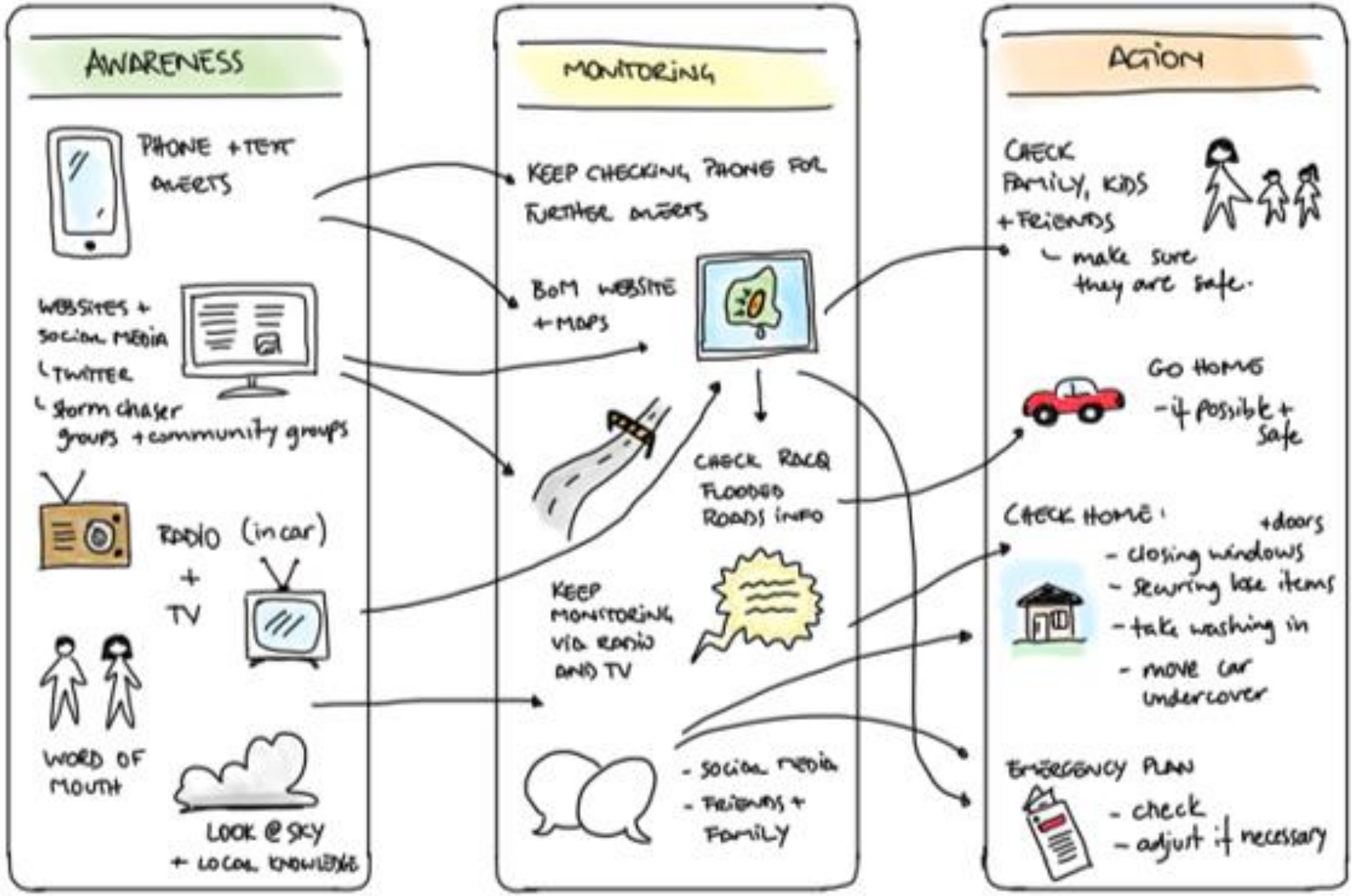
Community participants cultivated an understanding of risk and required actions from the alerts themselves

Reliance on environmental cues

Wanted alert to be comprehensive

Felt worry, confused, or no emotion

Severe weather journey may



Next steps

Testing of co-designed messages against existing Brisbane City Council alerts

Taken together, we aim for this work to support community understanding and response to early warnings and build trust between community members and Brisbane City Council.