Community-centred innovation: Co-designing for disaster preparedness

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Context.
Natural disasters are predicted to become more frequent and severe. This project addresses a wicked problem, to overcoming fractured networks, confusion and complacency, and dependency upon disaster management authority.
The project.
This is a suite of co-design methods used to facilitate engagement with communities and emergency agencies in Australia to build their adaptive capacities for collective and continuous development in strengthening resilience. The design approach uses visual and tactile artifacts that trigger thinking, catalyse discussion, heighten awareness to potential risks and collectively devise emergency plans.
The design process. We used a co-designing method in partnership with relevant authorities and councils, enabling communities to devise ‘solutions’ for themselves. This approach catalyzed the need for conversations on collective action and to continue this among co-located groups to strengthen resilience.
The community’s autonomy and inter-dependency for disaster preparedness is a core objective, averting the need to depend upon emergency services alone. To overcome social and mind-set barriers for preparedness, it required a radical re-design of power-dynamics between the fire authorities and communities and strengthen social relations among residents.
Our design approach precipitates collective discussion to share tacit knowledge, question assumptions or misunderstandings about preparedness, helping people to make sense of the complex issues and challenges in their own words, views and contexts. This approach catalyzed the need for conversations on collective action and to continue this among co-located groups to strengthen resilience.
The process scaffolded group action, inducing neighbours who know little about one another to formulate reasons to take collective action for survival. Scaffolding this community-centred engagement can build social bonds where learning and transformation of behaviour can take place among a supportive group, leading to more resilient and sustainable change.

Social Interactions and Relations

Structuring social relations
Precipitate neighbours to talk
The highly successful uptake of our methods in communities is expedited through the Australian Emergency Management Institute’s Community in Emergency Management course, demonstrating its adaptability into localized and multi-hazard contexts across Australia. Our design methods is a central feature of their course since 2012. The hands-on-learning workshop enables them to re-shift EM staff practice towards a community-led process and adapt it to their local contexts.
We designed various methods for the co-designing workshops, like *Playful Triggers* that has a visual, tactile and accessible quality. Some residents used them to indicate potential hazards and resources, access routes and vulnerable residents on a local map (left). In other locations, it was used to visualise community networks to think through whose advice could be sought and trusted in an emergency. *‘What if’ scenario cards* (right) highlighted common accidents and unexpected occurrences to prevent insular thinking. These methods catalysed a knowledge sharing processes, emphasising that the community has ‘expert’, relevant and critical knowledge to mitigating disasters.