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Project Title: Volunteered Geographic Information, community engagement and bushfire preparation

Commencement Date: July 2013

PHD PROGRESS REPORT 2015

My research explores the role of emergent technologies that allow members of the general public to create and share geographic information online, such as smartphones, online mapping sites, and social media, for community engagement and disaster preparation. Collectively, these technologies and practices are termed volunteered geographic information (VGI). Through my research, I am learning that VGI represents a shift in the ways geographic information is created, shared, used and experienced. This has important implications for various applications of geospatial data, including disaster management, where the social practice of VGI has potential to transform the traditional top-down structure of disaster management.

In investigating the potential for VGI to be useful in engaging communities in bushfire preparation in Tasmania, my research has 3 main components:

1. In 2014 I designed and completed surveys of over 150 residents from 12 communities across Tasmania to examine bushfire preparedness and current uptake, usage patterns, and limitations of social media and VGI technologies. These results gave an indication of potential for use of VGI in engaging communities in disaster risk reduction.
2. This year I have been interviewing emergency management professionals to determine how community use of VGI can work alongside traditional emergency management. Interesting insights are being gained into how community-driven bottom-up systems both disrupt and can complement authoritative top-down systems, such as emergency management. Preliminary results appear both useful for emergency management and also interesting for thinking about the broader implications of VGI – VGI may provide local data and speed in communication, perhaps empowering individuals, but what does it mean for official emergency management systems not set up to handle this type of data? What does VGI mean for expert geographers when the general public can now easily create geographic information through technology?
3. Later this year I will complete my last piece of fieldwork. This will involve running mapping workshops with communities to assess their experience of contributing

information, and the value to people of having local information from other community members mapped and shared together for their bushfire preparations.

I have established a thesis outline, and my literature review was recently published in the journal *Geography Compass*. I have presented my work at various conferences and events in Australia, Europe and the USA. A paper based on my survey results has been accepted for publication in the *Australian Journal of Emergency Management*.

My research so far indicates there are substantial benefits and opportunities associated with VGI, but also significant challenges that need to be overcome, including issues of quality assurance, the digital divide (or those people without technology access being excluded), and conflict between relatively unstructured community-driven activities and highly structured emergency management systems. Outcomes of my work will offer evidence based guidance for how these new community practices and data creation/sharing methods can best work alongside official emergency management, and how VGI may be effective in engaging communities in disaster preparation.