The Internet, particularly social media services, is an important and integral element in the daily routines of many individuals. In urban areas, these social media services are provided through dense network coverage and mobile platforms, such as smartphones, and are accessible from almost everywhere. Therefore it is not a surprise that social media services also have a major influence on the communication and media coverage of crisis events and disasters.

Emergency services agencies have integrated different social media services into their communication portfolio as an additional communication channel to engage and interact with the general public during extreme events.

This research project is concerned with the integration and utilisation of social media microblogging services in emergency services agencies. Preliminary data analysis of such organisations, which are operating in the management of natural disasters, reveal that these organisations undergo several distinct phases of social media adoption and adaptation with their utilisation of social media channels.

### Three phases of social media adoption

Three phases of social media adoption and adaptation seem to be especially dominant in emergency services agencies and consist of: “Broadcasting”, “Engagement”, and “Intelligence”.

Such organisations typically start using social media services purely as a broadcasting tool. In the second phase, the organisation begins to interact and engage actively with the general public through their social media channels. From this engagement phase, the organisation is either reverting to phase one utilising the social media channels again as a pure broadcasting tool, or is moving further to phase three utilising the social media channels as an intelligence tool to gather relevant information from the event.

Our research shows that these identified phases build on each other. This means that the organisation first needs to establish the capabilities of each phase before it can commence the subsequent phase.

### First phase: “Broadcasting”

In the early stage of social media adoption, emergency services agencies often use their social media channels to broadcast relevant information such as press releases and information from the organisation webpage. This is often automated.
In this phase of adoption, little to no interaction with members of the audience can be observed and the channels are mostly used for a passive one-way communication to the listening audience. A suitable metaphor, which would reflect this type of social media utilisation, would be that of a megaphone.

**Second phase: „Engagement“**

In the second phase, which referred to as the engagement phase, the organisation actively uses social media channels to interact and engage with their listening community. This frequent interaction can be, amongst others, in the form of answering specific individual questions or through active requests for information from the community. Individuals from the listening community, as well as the traditional media, seem to be actively managed by the emergency services agency organisation. The social media channels are, in this phase, not only used as a broadcasting channel but also as a two-way communication and interaction channel.

From the “engagement” phase, two transformations to other phases could be identified. Some organisations are downscaling back to a pure “broadcasting” phase. The operations of social media channels can be a very time and cost intensive task. Limited resources in an organisation can cause this downscaling. The second possible transformation is that the organisation enters into the third phase of social media adoption.

**Third phase: “Intelligence”**

In this third phase of social media adoption, the social media channels are not only used as a two-way communication channel but they are also used as an intelligence tool to gather relevant disaster or crisis information from the community. This process requires technical resources and can increase the need for further human resources.

Social media online communications can be accurate discussions about ongoing events, but can also include rumours and false information. Further these discussions can turn into “witch-hunts”, therefore, the gathered information can be about the event progression in the physical world, but can also include critical information from the virtual world that the organisation needs to have knowledge about or might need to react to.

In this “intelligence” phase social media platform are actively used to feed back into the operations of the organisation. The social media services are becoming more embedded into the operational structure of the organisation and the tactical use of these services changes over time.

**Takeaway and limitations**

The adoption model, as outlined, is constructed around the characteristics of natural disasters, such as floods and bushfires. It may not be fully applicable therefore for organisations that are concerned with civil and other human made disaster typologies, such as terror attacks.

Nonetheless, the research shows social media services can be a valuable communication channel to engage and interact with the general public. These services can be used to broadcast information, to actively support the management of events on a virtual channel, and to gather information about a specific ongoing event. However, we must take into account that the utilisation of social media services for the purpose of supporting the management of disaster and crisis can be time and resource intensive. Not every organisation has the means to operate their social media channels to their full potential.

Yet, social media channels should not be fully ignored. Online communication can have an influence on the progress of a disaster or crisis event and the online community tends to actively use the official emergency services agencies social media channels as a clearinghouse for this information.

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**This information sheet has been prepared for the IEERG by**

Christian Ehnis (The University of Sydney)

**For more information**

Interoperability for Extreme Events Research Group

sydney.edu.au/business/research/ieerg