Chapter 27
From Reactive to Proactive Use of Social Media in Emergency Response:
A Critical Discussion of the Twitcident Project

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ABSTRACT

This chapter examines the introduction and implementation of the pilot project Twitcident in an emergency response room setting. Twitcident is a web-based system for filtering, searching and analyzing data on real-world incidents or crises. Social media data is seen as important for emergency response operations: it can be used as an 'early warning monitoring system' to detect social unrest, and for improving common operational pictures (COPs). This chapter shows that the expectations on the functioning of the tool were not fully met: first it was hard for the response room professionals to make sense of the data and second, the management did not develop a proper project planning. The recommendations are twofold. On the one hand, the professionals who work with Twitcident must invest in developing new information management routines. On the other hand, the response room management needs to create a much more inclusive project learning strategy.

INTRODUCTION

Over the last five years, the use of social media and social networks such as Twitter, Facebook, Yammer and Instagram by citizens at times of crisis has gained the attention of professionals operating in crisis response organizations, such as the police, fire service and medical teams (Palen, 2008; Merchant, Elmer, & Lurie, 2011). In the crisis management literature it has been recognized for decades that citizens are self-reliant when there is social disruption and in crisis situations, whether those are incidents, emergencies or large-scale disasters (Helsloot & Ruitenberg, 2004). Nowadays, social media platforms provide a new opportunity for people to keep each other informed, adding a bottom-up information network that provides a platform for online communication (Machjzrack & More, 2010). In addition, they can potentially provide welcome additional resources for professionals in crisis response organizations. The promise is that, by using social media data, the first responders can enlarge their *common operational picture* (COP) (Yin, Lampert, Cameron, Robinson, & Power, 2012).

Yet, although the response organizations have started to recognize the importance of social media data during times of crisis, *how* this data actually can be made sense of, interpreted, validated and used is still an issue that requires further research. Therefore, professional crisis response organizations have also carried out (pilot) information management projects to understand how social media platforms actually work and how they can include social media data in their operations, both day-to-day and during crises. Over the years, many pilot projects have been implemented to test social media platforms as early warning systems, and to provide professionals with data that predicts upcoming social disruptions (Goolsby, 2010). In particular, the police have undertaken projects to determine how they could use social media data in their surveillance activities (Crump, 2011). Whereas for a long time social media data was regarded merely as 'noise' or, at best, not validated data[1], these projects indicate that crisis response managers and professionals are starting to take social media and Web 2.0 platforms seriously. Their problem, however, is how to incorporate these new information flows properly into existing information architectures in order to build a coherent crisis information system and, eventually, make the emergency response more reliable.

In this chapter we will present a project management case from the physical safety in the Netherlands, where 25 safety regions were established in 2007 to cover the crisis response across the whole country (Boersma, Groenewegen, & Wagenaar, 2010; Boersma, Wagenaar, & Wolbers, 2012). The safety regions have various functions. First, they facilitate integration between the two main first response disciplines: the fire service and the ambulance service medical teams. They work closely together with the police, who are organized at the national level in the Netherlands. Second, each safety region has had to establish a bureau responsible for developing emergency response plans and strategies and for how their professionals communicate with those in other emergency services, with policymakers and with citizens. Third, the safety region bureau is responsible for undertaking a specific risk analysis and assessment for the region. Finally, the safety region must ensure that there is a dispatch center, or *emergency response room* function, available. In the response room all three of the first response disciplines or services (police, fire and ambulance) are represented. The response room can be shared with other safety regions, on condition that the on condition that they are still able to respond adequately to incoming calls from citizens from across their own region.

Since 2012, those responsible for managing the safety regions have started to improve their crisis information management by implementing social media projects. For the various professionals working in the safety regions, however, it is still difficult to include social media data in their information

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