Chapter 10
Social Media (Web 2.0) and Crisis Information: Case Study Gaza 2008–09

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ABSTRACT
Social media technologies such as blogs, social networking sites, microblogs, instant messaging, wikis, widgets, social bookmarking, image/video sharing, virtual worlds, and internet forums, have been identified to have played a role in crises. This chapter examines how social media technologies interact with formal and informal crises communication and information management. We first review the background and history of social media (Web 2.0) in crisis contexts. We then focus on the use of social media in the recent Gaza humanitarian crisis (12.2008-1.2009) in an effort to detect signs of a paradigm shift in crisis information management. Finally, we point to directions in the future development of collaborative intelligence systems for crisis management.

INTRODUCTION: ICTS FOR FORWARD-LOOKING CRISIS MANAGEMENT
Crises in the 21st century are expected to astonish both the experts and the lay people. Lagatec (2005) was succinct in portraying the current situation in his paper titled “Crisis management in the 21st century: ‘unthinkable’ events in ‘inconceivable’ contexts.” Therefore, traits such as responsiveness, flexibility, self-organization, improvisation, resilience, agility seem pertinent for forward-looking risk and crisis management.

Crisis information management is no different. Top – down fixed information systems and tools cannot fully capture the spatial - temporal - social dynamics and respond to the uncertainties of future emergencies, disasters and crises. Numerous tools that have recently been developed to support crisis and emergency management have a pre-defined structure and rely primarily on information collected and maintained in normal (i.e. non-emergency) conditions. Although the deficiencies of central, hierarchical architectures...
have been pointed out and alternative solutions have been proposed (Dandoulaki & Andritsos, 2007), emergency management tools remain habitually centrally administrated and still reflect a top-down approach.

Current information tools, either formal (e.g. local traffic surveillance cameras, global alert and monitoring systems) or informal (mobile phones taking videos on the spot), gradually change the landscape in emergency information (Moss & Townsend, 2006). Social media technologies (social networks, microblogging, blogs, wikis, annotatable maps, image and video sharing, instant messaging, internet forums and other web forms) have also been acknowledged to have played a role in emergencies, disasters and crises (Palen, 2008; Palmer, 2008).

The emergence of such shifts and incursions summon and merit the clarification of the basic concepts in our discussion. The conceptualization of emergency, crisis and disaster is central in the current discussion among scholars (Quarantelli, 1998; Perry & Quarantelli, 2005, Gundel, 2005) and has significant implications in policies and practices. The relationship between crisis and disaster is still to be defined. The two are inextricably linked (Boin, 2005, p.155); however crisis is a general concept encompassing disaster (Quarantelli, 1998 p.235). Boin (2005, p.164) suggests that disaster is a “crisis gone bad”, thus including in the disaster category a spectrum of events and processes such as riots, epidemics, acts of terrorism and massacres.

This chapter examines how social media technologies affect crisis information management. We first review the background and history of social media (Web 2.0) in crisis management. We then focus on the use of social media during the recent Gaza humanitarian crisis. Finally, we point to directions in the future development of collaborative intelligence systems for crisis management.

Why focus on Gaza in order to grasp future trends? For one, social media played a major role in redefining the spatial and social locus of the crisis, thus the focus of crisis management, by triggering response all over the world. They also contributed to more resilience of the information system once the formal systems and tools could not or would not perform. Moreover, the Gaza case demonstrates the influence of social media technologies even when the disaster area has huge inadequacies in technological infrastructure. Finally, the vast Gaza mobilization on a worldwide scale exemplifies on one hand, the potential and strengths, as well as the perils and weaknesses of collaborative media, and begs on the other hand the question of a new structured platform for collaborative intelligence systems in decision-making for disaster management. It should be stated, however, that our objective is not to survey the use of social media in this case study; rather, we would like to discuss certain aspects that highlight a paradigm shift in crisis information management.

THEORY AND PRACTICE: SOCIAL MEDIA (WEB 2.0) IN CRISIS CONTEXTS

Crisis Management and the Media in the Risk Society

Crisis management is not separate from understanding the processes of risk and vulnerability that unfold both at micro- and macro-level. Yet, while much effort is put in dealing with the macro-level, especially as regards current information systems, less progress is made in grasping the situation and the dynamics at the micro level.

Being there in a crisis, having experienced the crisis and its multiple realities, having been part of the dynamics of a crisis, is by itself valuable knowledge (Hewitt, 1998, p.87; Barton, 2005 p.136, Buckle, 2005). The knowledge of experience is highly significant and on par with scholar and expert knowledge. Therefore, it is a challenge for crisis management to bring up also the micro-
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