

## Chapter 5

# The Information Management of Co-Located Emergency Response Rooms in The Netherlands

**Kees Boersma**

*VU University Amsterdam, The Netherlands*

**Peter Groenewegen**

*VU University Amsterdam, The Netherlands*

**Pieter Wagenaar**

*VU University Amsterdam, The Netherlands*

### **EXECUTIVE SUMMARY**

*This case is about the re-organization of the Dutch emergency response sector. It involves the diffusion and implementation of new communication and information technologies (ICTs), the introduction of safety regions and the establishment of co-located emergency response rooms (ERRs). The challenge for those organizations is to introduce the new technologies in such a way that they meet the demands of the people who have to work with them. The impact of the reorganization is illustrated by two embedded case studies: new ICTs in the safety-regions Hollands-Midden and Amsterdam-Amstelland. What the case shows is that the implementation of new ICTs in the Dutch safety-sector is not just a matter of technological skills, but of a mutual shaping of the ICTs and the organizations to enhance platform of e-governance, in this aspect the emergency response system serves as an important element. That is an important lesson for those responsible for the Dutch safety-regions, which are confronted with a new organizational and technological challenge: Netcentric Work.*

DOI: 10.4018/978-1-61692-814-8.ch005

## **ORGANIZATION BACKGROUND**

This case is about emergency response organizations in the civil safety-sector in the Netherlands. The organization and information management of emergency response systems is an emerging area of interest to academics, students and practitioners (Perry, 1995; 2003). The emergency response rooms (ERRs) are interesting public sector organizational arrangements. They conduct the intake of 911-calls (in North America) or 112 (in Europe) for help and relay them to the appropriate services and disciplines; the fire brigades, the ambulance services and the police. ERRs are organizations, which highly depend on advanced information and communication technology (ICT) systems. They may comprise of time-critical decision support systems to provide real time support to the people or communities at need, and recent trend of research in this aspect leads to incorporate intricate ICT methodologies in designing, operationalizing and maintaining these systems. They not only save peoples life, or support them in various formats, but also provide a continuous source of information and knowledge during normal period of their livelihood. In essence, this form of real-time decision support system forms a core component of e-government and elevates e-governance at the grass roots (Nelson, 2004). However, this chapter is illustrating two cases on emergency response room that are being used for emergency purposes.

The case presented in this chapter is not about e-governance in the way that it presents changing communication patterns between the government and the citizens, but rather about the way ICTs are implemented and used in governmental organizations – in our case emergency response rooms – and on how they influence the way people in these organizations work and share information with each other.

Since 9/11 and hurricane Katrina academic studies on safety and security have increased dramatically. Many different aspects of these

have received attention. In some studies the gap between policy makers and operators is discussed (McConnell & Drennan, 2006); others deal with the new safety environment (Walter, 2003), or the use of training in the preparation for disasters (Perry, 2004). Yet, the organizational dimension has received far less attention. Usually, preparation for disasters is done in military fashion. Hierarchy predominates in predetermined responses to crises to be. Only, increasingly, awareness is rising of the use of emergent, networked forms of organization. These should supplement but not replace the existing hierarchies (Moynihan, 2008; Newburn, 2001). Central to these networked forms of emergency response according to some are ERRs (Perry, 1995; 2003). Unfortunately, there is a relative scarcity of literature on ERRs, let alone on ERR ITs (an exception is Schooley & Horan, 2007).

Emergency response rooms are not only responsible for the first reaction at the time of an incident or crisis but also for the quality of information and communication of the relief workers and professional services. ERRs are not stand-alone entities. They are – or are supposed to be – integrated organizations that work together at times of crisis whether they are man-made (e.g. terrorist attacks), natural (e.g. flooding or hurricanes) or incidents (e.g. a plane crash).

An interesting aspect of emergency response organizations is that they are hybrid organizations. They are not hybrid in the sense that they consist of various disciplines per se (they do), but hybrid because they partly exist on a continuous basis and partly on a temporal basis. They are ‘emergent’ organizations, since an important part of the emergency organization only comes into being and action during a crisis. To give an example, emergency response organizations are operational on a daily basis, but when a plane crashes emergency response organizations are ‘scaled-up’, that is, extra organizational layers including administrative bodies are added to the basis-organization. Up-scaling also means the

8 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/information-management-located-emergency-response/46470](http://www.igi-global.com/chapter/information-management-located-emergency-response/46470)

## Related Content

---

### Pattern Discovery as Event Association

Andrew K.C. Wong, Yang Wang and Gary C.L. Li (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 1497-1504).

[www.irma-international.org/chapter/pattern-discovery-event-association/11018](http://www.irma-international.org/chapter/pattern-discovery-event-association/11018)

### Learning Kernels for Semi-Supervised Clustering

Bojun Yan (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 1142-1145).

[www.irma-international.org/chapter/learning-kernels-semi-supervised-clustering/10965](http://www.irma-international.org/chapter/learning-kernels-semi-supervised-clustering/10965)

### Distributed Data Aggregation Technology for Real-Time DDoS Attacks Detection

Yu Chen and Wei-Shinn Ku (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 701-708).

[www.irma-international.org/chapter/distributed-data-aggregation-technology-real/10897](http://www.irma-international.org/chapter/distributed-data-aggregation-technology-real/10897)

### Formal Concept Analysis Based Clustering

Jamil M. Saquer (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 895-900).

[www.irma-international.org/chapter/formal-concept-analysis-based-clustering/10926](http://www.irma-international.org/chapter/formal-concept-analysis-based-clustering/10926)

### Information Fusion for Scientific Literature Classification

Gary G. Yen (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 1023-1033).

[www.irma-international.org/chapter/information-fusion-scientific-literature-classification/10947](http://www.irma-international.org/chapter/information-fusion-scientific-literature-classification/10947)