12TH ICCRTS

"Adapting C2 to the 21st Century"

Implications of Information Priorities for Command and Control of Interorganizational Crisis Management

Organizational Issues, Networks and Networking, C2 Concepts, Theory and Policy

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Abstract

This paper concerns the command and control in Joint operations of interorganizational crisis management from the information flow point of view. Interorganizational crisis management involves governmental and non governmental organizations. They are either international organizations or local actors. The organizational structure of these actors is typically not designed from smooth information flowing in networks of organizations point of view. Instead, their organization structure implementation follows the traditions of each actor. However, the command and control of shared, Joint operations require that the implications of information flowing requirements to the organizational structure of the actors are concerned.

Information concerning Joint operations in crisis management has to be shared and available to enable new types of command and control as well as interaction and collaboration. Information has to flow smoothly from one actor to another, both internally in an organization and collaboratively between organizations. The actors must achieve situation awareness and understanding by advanced technological systems combined with human analysis.

This paper is based on the main results of a study that addressed the information requirements of high-level decision-making activities during a sudden crisis situation. The target of the study was Finnish national administration. This paper presents the results of information flow profile study of decision-makers. The results of the study show that information delivered does not meet the requirements. This challenges command and control. The paper proposes that command and control can be improved by implementing a framework and information and communication technology based services for information sharing. The development can be based on the results of information flow profile study.
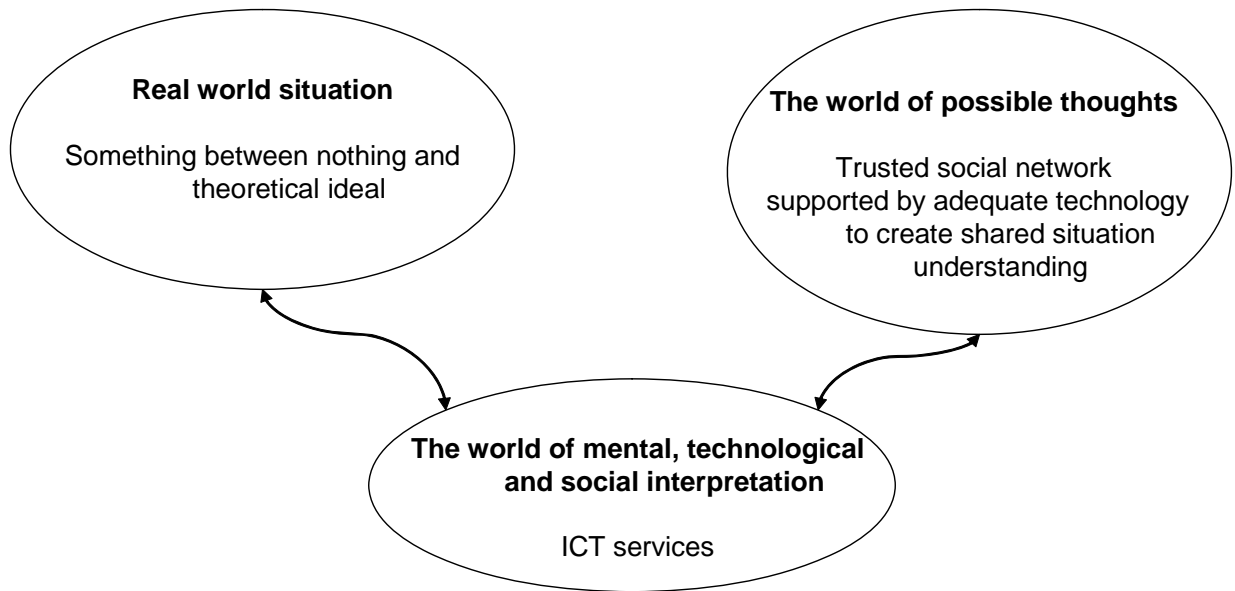
Introduction

Figure 1. The frame of interorganizational crisis management, based on (Popper 1975)
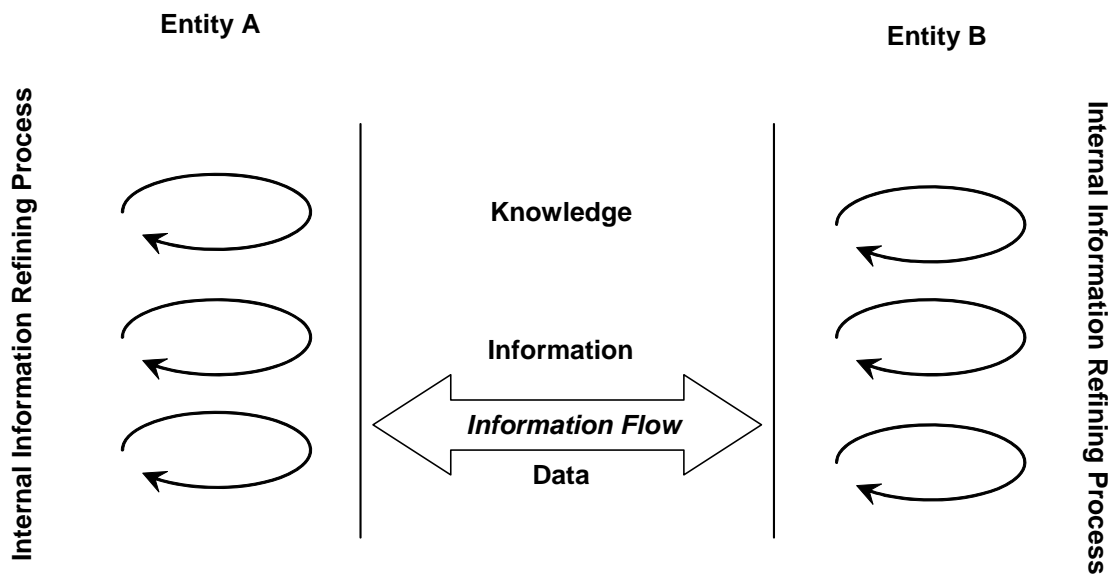

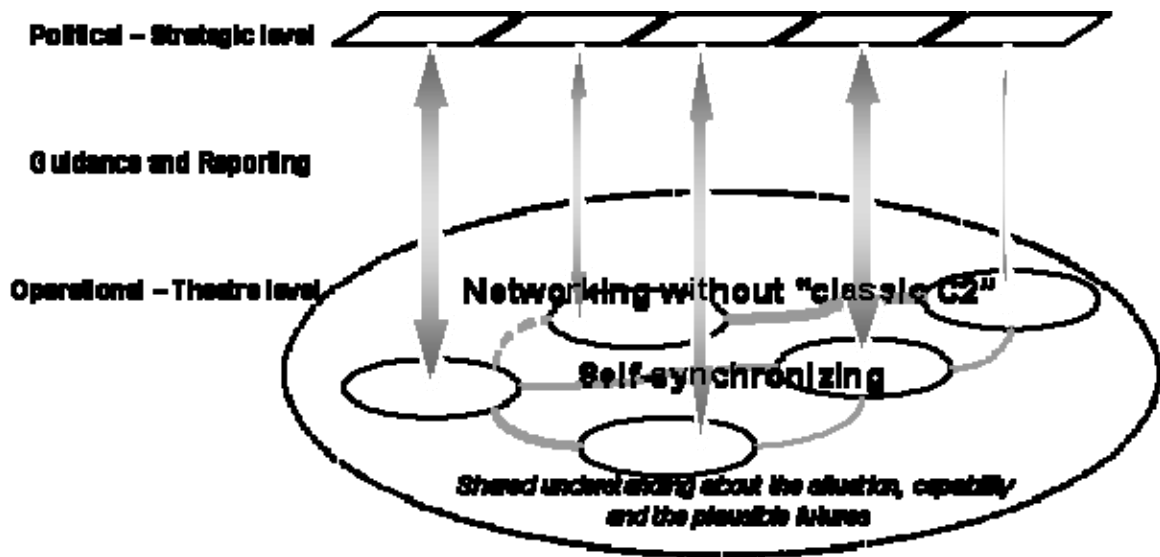*Figure 2. Information Flowing Concept (Kuusisto 2004, based on Maier 2000)*

Figure 3. Organizational levels in crisis management (Kuusisto et al. 2007)

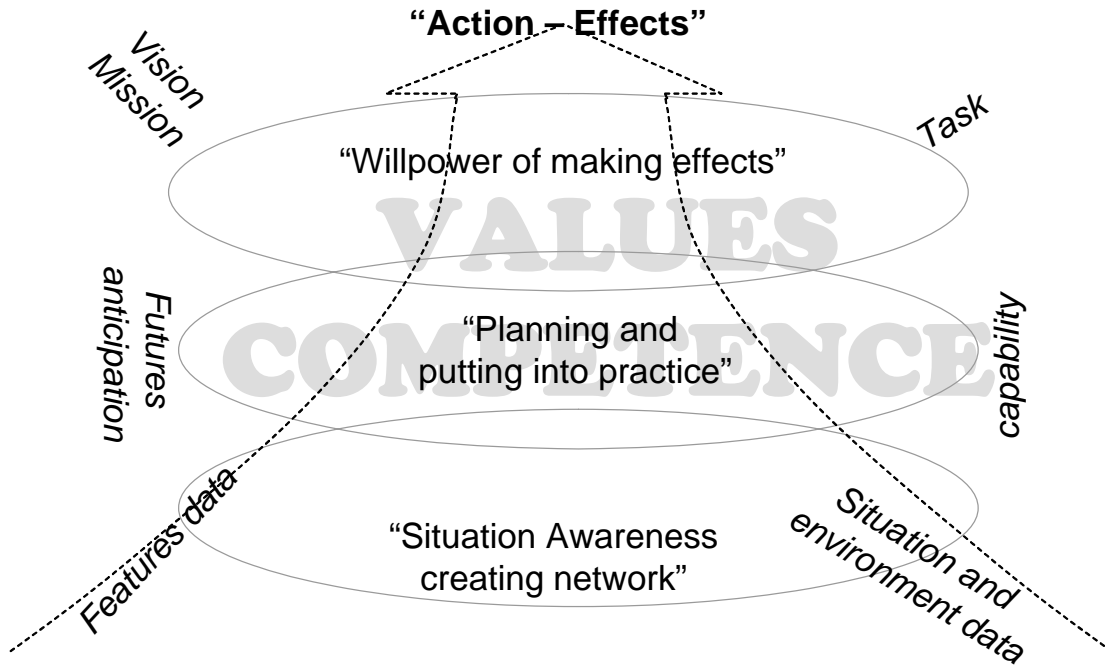## Situation Awareness Information Model and Information Profiles

Figure 4. Situational awareness information model

from superiors

11

from my
organization

14

to my
organization

16

to superiors

12

from network

12

to network

11

from subordinates

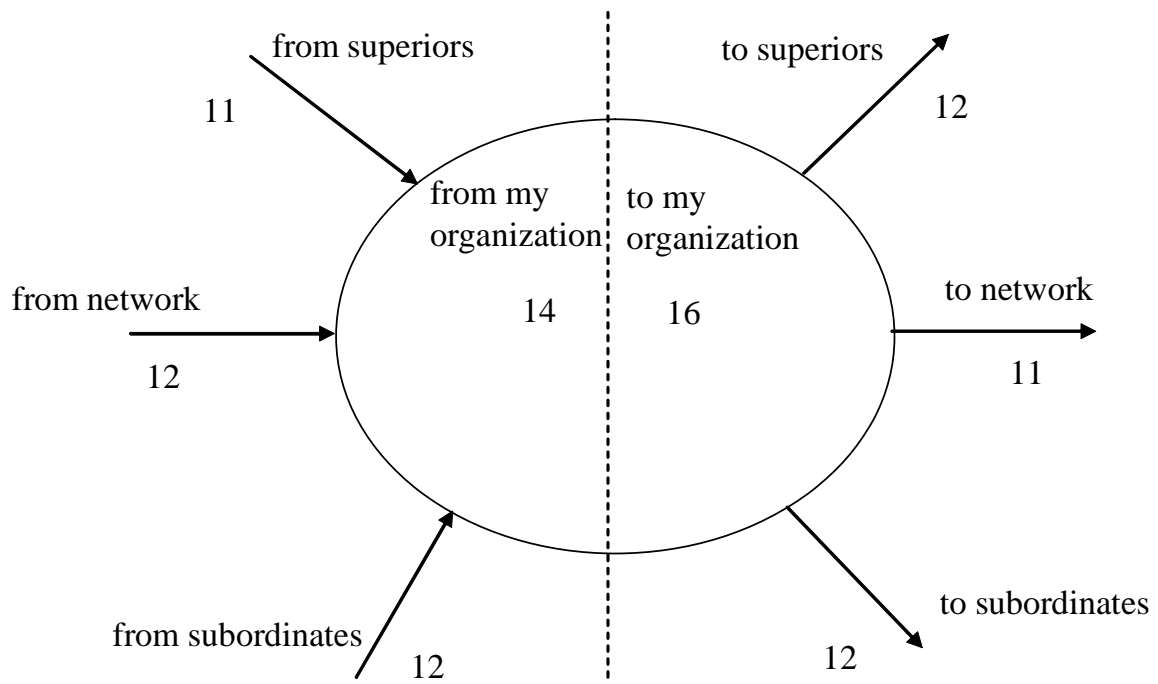12

to subordinates

12

Figure 5. Results of a study about directions (%) of information flows in crisis management
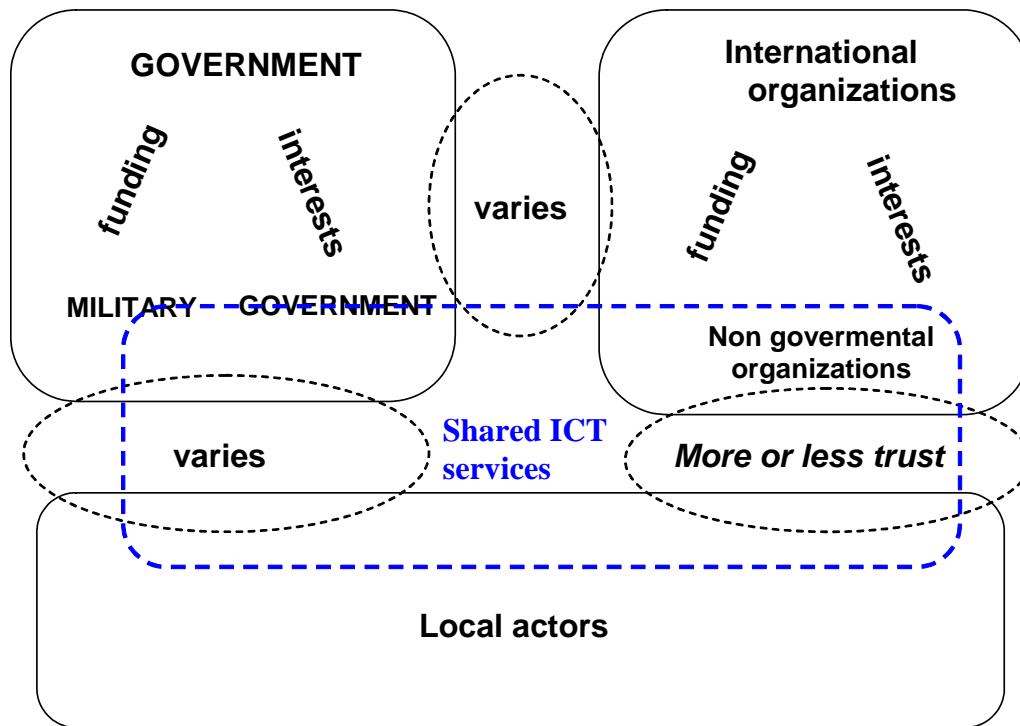*(Kuusisto 2005)*

Conclusions

Figure 6. Trust and shared ICT services between actors of interorganizational crisis management

Literature
Kuusisto, R. (2004) *Aspects on Availability, A Teleological adventure of information in the lifeworld*, Edita Prima Oy, Helsinki. 124p.

Kuusisto, R. (2005) *Tilannekuvasta täsmäjohtamiseen, johtamisen tietovirrat kriisinhallinnan verkostossa* (From situational picture to precision management, information flows of management in crisis management network), Liikenne- ja viestintäministeriön julkaisuja 81/2005. 29 p. In Finnish.

Kuusisto, T., Kuusisto, R., Nissen, M., (2007) "Implications of Information Flow Priorities for Interorganizational Crisis Management", *Proc. of the 2nd International Conference on Information Warfare and Security*. San Diego, USA, to be published

Maier, R. (2001) *Knowledge Management Systems, Information and Communication Technologies for Knowledge Management*, Springer-Verlag. Berlin, Heidelberg, New York.

Popper, K. (1975) *Objective Knowledge, An Evolutionary Approach,* Oxford University Press.