

Abstract

Collaborative Computing in Complex Humanitarian Crises – Lessons Learned in Iraq

Track: Sustainable Development and Humanitarian Affairs

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In complex humanitarian crises it is essential that information is shared in timely manner between extremely dissimilar organizations under austere computing conditions. The degree to which information can be shared is often hampered by factors such as a low level of trust between personnel in the disparate organizations, rapidly changing situations and needs, low availability of communications infrastructure, broad geographical dispersion of the participants, and a high degree of uncertainty as to the nature and makeup of the relief efforts. To accommodate these detractors to the quality of information sharing, it is necessary to provide a flexible architecture of information technologies that can be quickly reconfigured to include and exclude participants in multiple organizations, and to quickly adapt the tools to meet the changing needs for data gathering and information sharing. Field personnel must be able to adapt the system to their need as the requirements change.

The humanitarian relief efforts in the recent conflict in Iraq served as a proving ground for the use of information technologies to facilitate collaboration and communication of aid-related information. This paper will examine the strengths and weaknesses of possible architectures of collaboration solutions. A description will be given of how distributed, centerless, secure network-forming technologies with the potential to interface with Geographic Information Systems was critical for the successful information sharing in the complex humanitarian crisis in Iraq. The paper will conclude with a description of how a tight coupling of collaboration technologies and GIS systems will greatly enhance the users' ability to visualize, analyze, make coordinated decisions about the shared information.

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