

The Digital Aid Framework

Technology enables humanitarian relief organizations to come closer to achieving Dunant's dream. The Digital Aid Framework shows organizations how to use technology during complex humanitarian relief operations.

By Jason Sargent

Henry Dunant, joint founder of the International Committee of the Red Cross (ICRC), in his book *A Memory of Solferino* (1862) was convinced that the power of humanity could be engaged to alleviate suffering on a global scale. As a result of the digital revolution of the mid 1990s, international humanitarian relief agencies, including the ICRC, have increasingly engaged information technology in an attempt to achieve Dunant's vision by supporting relief personnel in managing complex humanitarian crises.

The advantages offered by the digital revolution to international relief organizations include but are not limited to: cost-effective broadband satellite transmission for communication and data transfer, the Internet for inter- and intra-organizational communication, data storage, query and manipulation made possible through powerful database management systems (DBMS), and research data retrieval and agency promotion using the global reach afforded to agencies by the World Wide Web (WWW).

Relief literature abounds with examples of single technology applications such as:

- * Biometric identification (iris scanning) in refugee camps on the Pakistan-Afghanistan border
- * Documenting war crimes with digital cameras

* Deploying geographical information systems (GIS) to determine feasible transportation and supply routes

* Internet information centers (kiosks) in the Balkans.

However, there is scant literature that conceptually guides relief organizations through the process of technology enabling their traditional functions in an end-to-end, encapsulated format across all stages of a refugee relief crisis.

A conceptual framework incorporating illustrated examples of information technology deployment is long overdue. The cognitive benefits of using a combination of diagrams and brief process narratives to represent a broad range of suitable, feasible and adaptable IT applications in such a framework are threefold.

1. A conceptual framework with suggested or indicative examples challenges the mindset of relief organizations to consider the potential of IT for supporting traditional relief functions in readiness for future relief interventions.

2. A sample framework for deployment incorporating diagrams, flow charts and narrative provides the reader with a far more comprehensive understanding of the concepts involved.

3. Finally, a conceptual framework acts as a substructure on which relief agencies can build upon and adapt their traditional relief functions rather than reinventing the wheel in regards to technology-enabled humanitarian relief.

The conceptual Digital Aid Framework offers a solution to the current gap in end-to-end, encapsulated technology-enabled relief literature. The framework consists of three iterative modules; Planning, Implementation and Evaluation and is "wrapped" within an

External Considerations layer where Non Government Organizations (NGO) codes of conduct and relief guidelines drive the framework development process. A feature of the proposed framework is its Internet-centric design, allowing relief organizations and personnel to take advantage of Internet protocols to communicate, manage information and work remotely with global reach and high transmission speeds over the Web. This design methodology takes advantage of the fact that the Web is presently the most widely used IT-based information platform for the international humanitarian community.

Examples of technology-enabled refugee relief functions contained in the framework include

- * Disseminating timely email alerts over the Internet in response to a crisis trigger
- * Integrating an Electronic Payment System (EPS) with biometric authenticated smartcards for logistic payments
- * Conducting Web-based training packages for relief personnel pre-crisis
- * Conducting online evaluative forums post-crisis
- * Using Personal Digital Assistants (PDAs) to collect medical treatment details of refugees and Internally Displaced Persons (IDP) within refugee camps for storage into E-health "passports".

Complex humanitarian relief interventions appear set to continue in the new millennium with the emergence of socio-political triggers such as terrorism and natural climatic events such as famines and floods impacting upon developing nations. In this context the dichotomy of two seemingly opposed concepts -- IT applications utilized by aid agencies to support humanitarian relief operations, and humanitarianism, emanating from centuries old noble and religious beliefs -- unite to demonstrate that ideas formed in the past can be sustained by technologies embedded in the present in the goal of relieving the suffering of mankind.

The author is a final year undergraduate IT student in Wollongong University's faculty of Informatics. His honors thesis involves the development of the Digital Aid Framework. Further details about the Digital Aid Framework may be found at the following URL:

<http://thesis.jasonsargent.net>

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