



ISCRAM2010

Defining Crisis Management 3.0

7th International Conference on
Information Systems for Crisis Response and Management

**May 2-5 2010
Crowne Plaza Hotel
Seattle Washington USA**

Call for Papers

Submission of work-in-progress, discussions, and practitioner papers remain open until January 18th 2010.
Submissions of full research papers is now closed.

The theme for ISCRAM2010 is *Defining Crisis Management 3.0*. Our aim is to look forward at the conference and consider how our rapidly changing technologies may change the way that we respond to crises in our ever more interconnected world. As always the conference will be multidisciplinary drawing together perspectives from across all socio-technological domains. Human behaviours are as important to us as the technologies that enable us to share information and situation assessments quickly and in increasing volumes. While we particularly solicit papers emphasising the conference theme, we welcome papers covering all aspects of information systems for crisis response and management.

The conference will involve the following tracks:

- **Collaboration and Social Networking.** The convergence of information and communication technologies, the growth of the internet including the mobile internet, and the advent of technologies known under the general heading of Web 2.0 have all contributed to our ability to collaborate over great distances, both synchronously and asynchronously. Our aim in this track is to explore how these new approaches to and support for collaboration can help in crisis management and response. The track will consider submissions about systems development, their application and evaluation, as well as studies that address socio-behavioral and cognitive features and consequences of systems..
- **Geo-Information Support.** Recent disasters clearly identified the shortcomings of IT solutions for disaster rescue and recovery. In particular, geospatial information and technologies are often critical elements of effective emergency response systems, and within the disaster cycle as a whole. Examples range from the real-time tracking of relief supplies to public web interfaces showing evacuation routes and shelters. Science encompasses the theoretical and conceptual elements that

underlie Geographic Information Systems (GIS) and related geospatial technologies. In this track we would like to attract academic, practitioners and possible demos showing the relationship and impacts of Geo-Information Science to crisis management. These elements include geographic information visualization, representation, interaction, storage, manipulation, integration and exchange, spatiotemporal reasoning, the impacts of GIS on society and individuals and vice versa and basic spatial themes from fields such as geography, geodesy, and cartography.

- **Humanitarian Actions and Operations.** The humanitarian context presents unique challenges for the design and deployment of information systems. While interpretations of the term '*humanitarian*' vary, it is generally associated with actions and operations that seek to alleviate human suffering the face of crises as diverse as armed conflicts, epidemics, famine and natural disasters. These crises often occur in fragile environments characterized by low incomes, sparse infrastructure and in some cases low levels of IT skills. Also, the response to these crises is often international in nature, generating the requirement that information systems foster information sharing and processing both locally and globally. This track invites submissions that showcase research results or practitioner cases which address these unique challenges in developing information systems artifacts, methods or theories that help further develop humanitarian response efforts.
- **Human-Computer Interaction (HCI).** HCI is the interdisciplinary study of the design, development, and evaluation of user interfaces. Focusing on useful and usable information systems for crisis response and management these HCI tasks become particularly challenging. The essential criterion for all activities in this area is acceptance by practitioners who are the experts in their domain. They often work under stress with a high cognitive load and under difficult physical conditions. New and innovative IT concepts and tools introduced to the domain could be mission critical and decide about lives.
- **Intelligent systems.** Providing adequate information management and decision making support makes exacting demands on the design of computer systems. Acquiring, filtering, organizing, representing, reasoning with and distributing relevant information to the right stakeholders at the right time and in the right format is a challenging task. Intelligent systems provide a way of managing this complexity reducing the cognitive workload of personnel and helping to manage the emergency in the most efficient and effective way possible. The goal is to enhance the emergency management capacity of the international community by finding intelligent technological solutions to support crucial areas such as decision-making, information management and coordination. Techniques from artificial intelligence and a sound understanding of cognitive science may be employed to develop robust and adaptable information management and decision support systems.
- **Planning, Foresight, and/or Risk Analysis.** We are interested in any approaches or methodologies for the above that would aid in the improvement of any Emergency Preparedness or Management Process, integration of the results into other phases such as mitigation, detection, evaluation, response, and recovery. Certainly any improvement in supporting information systems or new applications of information systems is also appropriate. Of particular interest are improved collaborative methods and ways to integrate volunteer individuals and local organizations into planning, foresight, and or risk analysis. Also of significant interest are approaches and methods that are low cost for localities without flexible budgets.
- **Research Methods.** This track presents state-of-the-art research methods in the broad area of crisis management. The focus of the track is on presenting innovative methods that have been applied and evaluated, whether in field, laboratory or synthetic environments. Consistent with the overall theme of the conference, particular emphasis of the track is on methods that may be used to uncover the processes that underlie human interaction with information and communication technology (ICT). We particularly welcome novel and/or critical views on appropriate ways to conduct research in this area.
- **Standardization and Ontologies.** Due to the complex nature of crisis response and management, information systems in this field are more often than not a "system of systems". Information

interoperability among such systems is essential to make key data flow among the many stakeholders during a crisis. In addition, information systems are integrated in decision processes controlled by legislation and regulation, and set in an fast-changing environment of people with different levels of expertise, multi-disciplinary backgrounds, and multicultural and multi-lingual work environments. The key challenge of information systems is to ensure that information is encoded in a way that the receiver understands the semantics of the information in an interoperable environment. Thus it is vital that we adopt and if necessary create effective and efficient standards and ontologies for information exchange. These include IT standards for software interoperability (such as web service standards and geospatial standards), but also process standards for interoperability of (multi-national) emergency teams. It includes ontologies ranging from description of relief teams, resources and locations, over hazard preparedness (seismic building codes) to techniques to uniquely identify a disaster.

- **Technologies, Tools and Demos.** Information Systems for Crisis Response and Management is about putting effective tools and technologies in the hands of people with critical needs in critical situations. In recognition that many effective tools and technologies are created outside research settings, the ISCRAM 2009 conference call for papers to surface intellectually stimulating work that contributes to the field but whose evolution has favoured practical application over rigorous scientific grounding. This track offers practitioners, technology developers and researchers the opportunity to showcase working technologies, and discuss the technical, social or political challenges that were encountered in implementation or deployment.
- **Open Track.** The conference welcomes general submissions that meet the broad objectives and interests of ISCRAM2010.

In addition there will be a special track organised by the University of Washington Conference on Safety and Security Education & Research (SASER):

- **Safety and Security Education (SASER).** The objectives of SASER are to create a community dialogue to explore research and education priorities for (regional) safety and security. Submissions relating to this objective sought.

There will also be a number of special sessions, including

- **Assessing Crisis Management Operations and Exercises**
- **Response Information Systems Requirement Engineering and Evaluation**
- **Studies of Command and Control Systems**
- **Virtual States**

Further details of the special sessions may be found at www.iscram.org.

Note that more detailed descriptions of the tracks and special sessions as well as guidance on housestyle and formatting with a MS Word template for submissions are available at www.iscram.org.

Type of submissions

ISCRAM is aware that it serves a wide community of different disciplines spanning both academic and practitioner interests. The demands on individuals from their various professions differ greatly in terms of publications and conference presentations. Academics need conferences and related publications to conform to certain standards – time consuming standards – of peer review; practitioners have far greater

time pressures and often do not need such formal reviewing of their work for career progression. All have relevant and important perspectives on the issues that face us.

ISCRAM2010 is soliciting four types of submission:

1. Full research papers, which will be double blind peer reviewed. It is intended that these will report completed work which can be assessed to the highest academic standards. Such papers should be no more than 10 pages with figures & tables (~5000 words)
2. Work in progress and discussion papers which will be subjected to a peer review to ensure clarity, relevance and significance. Such papers should be no more than 5 pages with figures & tables (~2500 words).
3. Practitioner reports and discussions which raise issues, examples and case studies, examples of best practices, improvements, and significant insights or examples. Such paper will be subject to a peer review to ensure clarity, relevance and significance. Such papers should be no more than 5 pages with figures & tables (~2500 words). Authors may prefer to submit an extended abstract rather than a full paper and perhaps a set of powerpoint slides. The template for submission (see below) explains how this may be done. Also you may wish to propose a discussion panel, in which case several authors/proposer might use the template to submit an extended abstract on the broad issues to be discussed.
4. Demonstrations. (see below).

Note that the designation of the paper and its reviewing will be indicated in the conference proceedings. Also anyone is welcome to submit any of these types of submission.

Presentations

ISCRAM will have plenary, parallel and poster sessions. Accepted papers will be assigned to the most appropriate session given the reviewers reports and the papers objectives. Such designation of the paper will be advised at the time of the acceptance of the paper.

Demonstrations

There will also be possibilities for demonstrations. These may be associated with a paper or simply stand alone. If you wish to have a demonstration associated with your paper, please email the conference organisers to this effect. However, you must submit the paper separately for review as indicated below. Contributors simply wishing to demonstrate their systems or technologies without any associated presentation should email the conference organisers. (iscram2010@iscram.org). Note that there is a fuller call for demonstrations on www.iscram.org.

Submission Process and Deadline

Submissions must be in the ISCRAM housestyle. Details of this are provided in a Word document /template, which is available at www.iscram.org.

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About ISCRAM:

The ISCRAM Community is a worldwide community of researchers, scholars, teachers, students, practitioners and policy makers interested or actively involved in the subject of Information Systems for Crisis Response and Management. At its annual international conference alternating between the US and Europe, the ISCRAM Community gathers to present and discuss the latest research and developments in this growing area during an interactive and stimulating 3 day program. The ISCRAM Community also

organizes an International Summer School for PhD students and ISCRAM-CHINA, an annual conference for ISCRAM research in China. Full information on ISCRAM can be found at www.iscram.org.

Rough Schedule of Important Dates

- Nov 30, 2009: Submission of full research papers ended.
- Early Jan 2010: Acceptances or otherwise of full papers will be announced.
- Jan 18, 2010: Final submission of work in progress papers, practitioner papers, demos and posters.
- Early Feb 2010: Closing date for applications for doctoral consortium, and any workshops or tutorials which require separate registration and pre-event communications.
- Mid Feb 2010: Acceptances or otherwise of work in progress papers, demos and posters announced. Notification of acceptance of places at doctoral consortium and other workshops with limited registration.
- Feb 28, 2010: Final submission of all accepted papers, full, work in progress or practitioner reports, for inclusion in the proceedings. Note that by this date at least one of the authors of each paper will need to have registered.
- Early Mar, 2010: Early registration deadline.
- May 2-5, 2010: ISCRAM2010 conference.

Further details of ISCRAM2010, as they become clear, will be published on www.iscram.org and through its discussion and mailing lists.

We look forward to seeing you in Seattle

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