

ISCRAM



NEWSLETTER

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Editorial:

Sorry! Sorry!! Sorry!!!

This edition of the newsletter is late, very late. I can shift about 3% of the blame for that onto others; but, try as I might come up with excuses, the remaining 97% of the fault lies with me. Sorry! I have no idea where all the time has gone since the last edition.

So I need a plan of how to get back on schedule. I normally call for news and articles, etc. a few weeks before I publish. Not this time. I am going to press with what I have. That means that there is little – well, nothing! – in the news section. But the next edition will be out in early November. So please, please send me news for that now!

OK: so what has been happening? In April, ISCRAM held a wonderful conference in Vancouver. The papers were great, be they invited plenary or contributed to sessions; there were continual and lively debate and discussion; great social events; and above all the chance to meet colleagues new and old. I am beginning to look on ISCRAM conferences as family occasions as much fun as Christmas – actually, thinking about it, *more* fun than some parts of Christmas! The proceedings and photos from the conference are available on the ISCRAM website: www.iscram.org. Thank you to all the organisers, both at Vancouver and from across the ISCRAM community, for bringing together such a splendid conference.

Then in August we held the 5th ISCRAM Summer School in Tilburg. It focused on Humanitarian Information Management and the Role of Social Media in Crisis Management. There were some 25 participants and many tutors and lecturers. One aspect was particularly pleasing: several of those lecturing or running sessions had attended ISCRAM Summer Schools and Doctoral Colloquia over the years as students. ISCRAM is definitely developing its community. A highlight of the School – there were many! – was the exercise "Disaster in My Backyard", which was run at Campus Vesta, Belgium. Photos of the students enjoying a night-time exercise with little sleep –

well, it had to be realistic! – are on the ISCRAM website: www.iscram.org.

The Summer School is, in a very real sense, an embodiment of ISCRAM's commitment to education. Two articles in this issue reflect this. The first by Andrea Tapia describes how she developed a Crisis Informatics course at Penn State and then took and presented it at the University of Costa Rica. The second by me is a short piece on research methodology. I have given versions of it over the years, most recently at the Summer School. People seem to find it useful, so I dare to offer it here.

Finally there is a piece by Jose DiBella on Disaster Reconstruction written on his return from Chile and the areas devastated by the Chile Earthquake and Tsunami.

As I said, the next issue is due out in early November. Let me have material for that. Do not let me have an excuse to be late again!

Finally the first call for papers for ISCRAM2013 is out (see page 9 or www.iscram2013.org). Get planning! It will be a great conference to be at and present your work.

Simon French
Newsletter Editor
simon.french@warwick.ac.uk

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Education Spotlight: Translating Crisis Informatics

In the summer of 2011 two remarkable scholarly opportunities were presented to me. First, I was given an opportunity to design a new course entitled "Crisis Informatics" for the College of Information Sciences and Technology at Penn State University in the United States. Simultaneously, I was awarded a US Fulbright Fellowship to conduct research and teach in Costa Rica during a planned sabbatical for the spring semester of 2012.

Since the Fulbright Fellowship included teaching a course as an element, I offered to teach a version of the Crisis Informatics class as a part of a new interdisciplinary Master's degree, focused on Risk Management and Emergency Response, at the University of Costa Rica. This Master's degree is the only one of its kind in Costa Rica and has the goal of producing a cadre of professional risk and emergency managers for the country.

However, I designed the Crisis Informatics course at Penn State University to be taught as part of an upper-division undergraduate course within the Security and Risk Analysis major. This major engages students in the challenges and problems associated with assuring information confidentiality and integrity as well as various methods for assessing and mitigating associated risk. This is applied to contexts that include transnational terrorism, cybercrimes, financial fraud, risk mitigation, and security and crisis management.

I knew that I had to design this Crisis Informatics course for two institutions, two cultures, two languages and two student populations.

My teaching philosophy was the same for both courses. Central to my teaching was the development of a reflective practicum¹ for undergraduate and graduate students. A reflective practicum is one in which three relationships are reconstructed: the relationship between the student and the body of knowledge, the relationship between the student and faculty, and the relationship between expertise and ethics. My intention was the creation of a cadre of critical student thinkers around disasters and technologies. This is facilitated by my hands-on learning model, which promoted thinking and

¹ Practicum: A course, especially one in a specialized field of study, designed to provide supervised practical application of previously studied theory. (I had to look it up too! Ed.)

content expertise through the use of realistic scenarios or problems.

The core concepts of the course I held constant. Students were asked to examine how information and communication technologies have played a role in saving lives – specifically in the areas of technologies used toward disaster preparedness and response. Both courses explored the inter-connectedness of information, people, and technologies in a crisis. The students examined how information is managed, organized, coordinated, and disseminated during a crisis. Students reflected on lessons learned from past crises, and develop strategies to manage future crises.

In addition, both courses were housed within interdisciplinary programs. Both courses drew students from the traditional Colleges of Geology, Geography, Information and Computer Sciences, Public Administration and Social Sciences. As with all interdisciplinary courses, the students within their home colleges and departments had an interest in emergencies and disasters, but did not have resources within the current faculty to fully explore these interests. Courses such as these allowed students of technology to explore the social context and application of the systems they might build. Students of administration gained a deeper understanding of the ways technologies aid in collaboration and decision-making. Finally, students from the social sciences were exposed to the technologies and systems thinking involved in large-scale collaborative response systems.

Several core readings were also held constant, albeit one version in English and the other translated into Spanish. Here are six articles that can represent the shared core:

- United Nations Foundation, (2011), Disaster Relief 2.0: The Future of Information Sharing in Humanitarian Emergencies;
- E. L. Quarantelli, (1998), The Computer Based Information/Communication Revolution: A Dozen Problematical Issues and Questions They Raise for Disaster Planning and Managing;
- Bartel Van de Walle and Gerd Van Den Eede, and Willem Muhren (2009), Humanitarian Information Management and Systems;
- Leysia Palen Kenneth Mark Anderson, Gloria Mark, James Martin, Douglas Sicker, Martha Palmer, and Dirk Grunwald, (2010), A Vision for Technology-Mediated Support for Public Participation & Assistance in Mass Emergencies & Disasters;
- Huiji Gao, Xufei Wang, Geoffrey Barbier, and Huan Liu, (2011), Promoting Coordination for Disaster Relief (From Crowdsourcing to Coordination);

- Theresa I. Jefferson and John R. Harrald, (2007) Collaborative Technology: Providing Agility in Response to Extreme Events.

The principal differences between the two courses were the languages in which they were taught, and the levels at which they were taught. The Penn State Course was intended for undergraduate students in their third year, while the Costa Rican course was intended for professional Master's students. This led to the translation of all materials from English to Spanish and the inclusion of more, and more complex materials into the Costa Rican class.

Beyond these two simple, practical differences, there were three grander differences that represented some ontological and cultural gaps between the populations.

The first of these was a difference in perspective on the value of new technologies. In the Penn State class the students were very pro technology, believing that modern mobile and internet-based technologies would revolutionize emergency response. It may have been due to their relative youth or privilege, but these students were strongly critical of traditional response mechanisms and organizations, which were slow to adopt new technologies and practices. Technologies were perceived as a balm to all of the frustrations and ailments of the response system. Examples, such as the role of Ushahidi during the Haitian earthquake were held up as examples. Because of this, the final small group project of the course was the design and development of a technological service or application that would solve a problem in emergency response.

By contrast, the Costa Rican class, which was slightly older, in general, but no less economically privileged, saw newer technologies as frivolous and distracting from real technological needs, problems and solutions. The class focused more on the inter-organizational problems of collecting, curating and sharing information across organizations. Technologies were seen as large-scale databases and radio communications. An example of this is Costa Rica's 30-year old citizens' radio network, which acts as a human-early warning system. On a day-to-day basis, these community members watch, monitor and control the country's areas that are potentially threatened by hazardous events, reporting back to the National Emergency Commission via radio. The students saw this as a well-functioning system that needed to be aligned with other government technological efforts. Because of this, the final small-group project for the course became the analysis of the information needs, flow, collaboration and sharing of one of the major ministries of the country that contributed to disaster and risk management.

A second major ontological difference between the two courses was the students' belief at which level change in the emergency management system should take place. For the US students, they strongly believed that the large response organization was beyond saving, meaning that they were too slow or unwilling to adopt new practices and technologies. These students believed that change would happen at the individual level, or at the small group level. They focused their interest at the individual user using a mobile device and an application, at the level of the technological volunteer who created the application or processed the crowd-sourced data, or at the group or crowd level including those micro-blogging about an event. These students relished the work by Leysia Palen, Sofia Liu, and Sarah Vieweg.

The Costa Rican students focused on change at the government level. The students believed that if the diverse organizations who respond to disasters are going to coordinate there must be an external force, like a national government, which gently pushes the groups into functional relationships. An example of this Costa Rica has used the power of the National Commission to compel organizational and informational coordination. In 2006 the Costa Rican National Commission for Risk Prevention and Emergency Response (CNE) created the National Emergency Law, an institutional national platform for disaster response. This law mandates that during times of disaster all involved responders must coordinate, communicate and share information. The students focused their interest in the National Commission and how its influence could change the rest of the emergency response network. These students enjoyed the work of Van de Walle, Hiltz and Turoff, Quarantelli and Tapia.

The third major difference was whether the focus of change should be on risk management and prevention or on disaster response. The US students were very interested in immediate, real-time data and action. They wanted to develop systems, which would allow information to pass from individual to individual during the time of crisis and to convert every bystander and neighbour into an empowered first responder. On the other hand, the Costa Rican students believed that resources and effort should be devoted to make communities more resilient with greater capacity to withstand disasters, rather than patching them up afterwards. Through acts of law, Costa Rica has developed a new strategy for disaster risk management, which refocused the country on risk awareness, management and capacity building. Neither group dismissed the importance of the other path to change, but they had a preference for action. The US students believed they could do the most good

by changing technologies and individual behaviour, while the Costa Rican students believed that organizational action through government agencies would produce the most likely change in the emergency management system.

At the end of both courses the students agreed on several points. Finally, almost all of the students involved found that technologies are playing a much larger role in both risk management and response. In addition they believed that citizens should be directly involved in their own risk management and emergency response, acting as citizen scientists, community organizers and first responders. The students also believed that universities should make a significant investment in promoting Risk and Emergency Management professional education, which would lead directly to careers in a (National) Risk and Emergency Management system. This system should then be strengthened both from the top and bottom, through laws, which compel forms of collaboration during times of crisis, and more support for direct individual and community participation in local risk awareness and management activities.

Andrea H. Tapia
Associate Professor,
Penn State University

Cynefin and Research Planning

I was an invited speaker at the first ISCRAM conference and gave what has remained my best-titled paper² ever; the contents may be dubious, but the title stands out! "Believe in the Model, Mishandle the Emergency!" In it I and my co-author, Carmen Niculae, discussed how *Cynefin*, a simple model for discussing decision contexts, might help in explaining the dynamics of crisis management. Over the years I have come to use *Cynefin* in structuring my thinking on many things³ including research methodology. I have used these ideas in teaching research methods courses at various places and on various courses, including the recent ISCRAM

² S. French and C. Niculae (2005). "Believe in the Model: Mishandle the Emergency." *Journal of Homeland Security and Emergency Management* 2(1): 1-16.

³ For a summary of these, see: S. French (2012). "Cynefin, Statistics and Decision Analysis." *Journal of the Operational Research Society*. <http://www.palgrave-journals.com/doi/10.1057/jors.2012.23>.

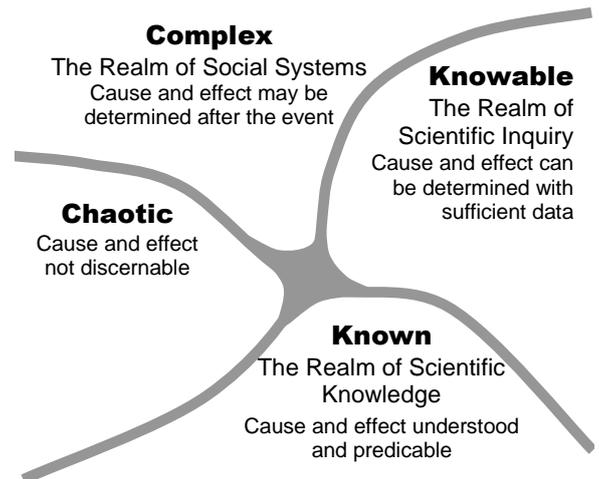


Figure 1: Cynefin

Summer School. I offer it here as a way of thinking about research planning.

So what is *Cynefin*? It is an approach to categorising and discussing decision contexts that was developed by David Snowden⁴. The word 'Cynefin' is Welsh for 'habitat'. The *Cynefin* model roughly divides decision contexts into four spaces: see Figure 1. In the *Known Space*, or the Realm of Scientific Knowledge, the relationships between cause and effect are well understood. All systems and behaviours can be fully modelled. The consequences of any course of action can be predicted with near certainty. In such contexts, decision making tends to take the form of recognising patterns and responding to them with well-rehearsed actions.

In the *Knowable Space*, the Realm of Scientific Inquiry, cause and effect relationships are generally understood, but for any specific decision there is a need to gather and analyse further data before the consequences of any course of action can be predicted with any certainty.

In the *Complex Space*, often called the Realm of Social Systems though such complexity can arise in environmental, biological and other contexts, decision making situations involve many interacting causes and effects. Knowledge is at best qualitative: there are simply too many potential interactions to disentangle particular causes and effects. There are no precise quantitative models to predict system behaviours such as in the known and knowable spaces. Analysis may begin and, perhaps, end with informal qualitative models.

Finally, in the *Chaotic Space*, situations involve events and behaviours beyond our current

⁴ Full references to Snowden's work and other material are given in the paper cited at footnote 3.

experience and there are no obvious candidates for cause and effect. Analysis is effectively impossible because there are no concepts of how to separate entities and predict their interactions.

The boundaries between the four spaces should not be taken as hard. The interpretation is much softer with recognition that there are no clear cut boundaries and, say, some contexts in the Knowable Space may well have a minority of characteristics more appropriate to the Complex Space.

Snowden uses the ideas of Cynefin to discuss other issues such as organisational culture, leadership, and, importantly, knowledge management. A distinction is made within knowledge management between *explicit knowledge* – i.e., knowledge with can be encoded – and *tacit knowledge* – the skills, expertise, values and so that we cannot articulate, at least currently, other than by showing them in our behaviours. Within Cynefin one would expect tacit knowledge to dominate in the complex and chaotic spaces, while explicit knowledge dominates in the known and knowable spaces. This in turn suggests that knowledge management relies more on socialisation in the complex and chaotic spaces whereas one uses combination in the known and knowable spaces. Indeed, the use of the term scientific knowledge in the known space suggests the archetypal example of explicit knowledge: a scientific model or theory.

How then does this all relate to research methodology and planning? Well, Cynefin can articulate a discussion of how we make gradually sense of a mess of events and stimuli, discern patterns within them and then build more general understanding. That is essentially the process that Science formalises in the Scientific Method. Consider Figure 2.

We begin ignorant, facing events and behaviours in the Chaotic Space. Initially, we might not even be able to organise the stimuli and happenings that we see into events and recognisable behaviours. Causes and effects are certainly unclear: things are 'random' to us. Gradually through our interactions with our environment, we begin to make sense of some parts of it, seeing patterns or some such. Slowly our perception of those parts of the environment move into the Complex Space as we perceive some causes and their effects, but we still do not have enough understanding to model and predict precise effects of a set of causes. Through continued interactions with the environment, we make more sense of some of the behaviours and build a much tighter understanding of cause and effects, developing scientific models and laws. While we still cannot predict perfectly, needing parameters or similar

to complete the models, our understanding moves into the Knowable Space. Next we seek data to determine parameters and so on, which will allow our models to predict in detail effects from a particular set of causes. Through more interactions, we determine the parameters, finding that some are very widely applicable, e.g. (physical) constants, and these aspects of our understanding move into the Known Space, where we can predict effects from a set of causes without further data.

This is, of course, a very naive description of the process of Science, though I have heard more naive in some research methodology courses! While this description lacks subtlety and sophistication, particularly in the later stages of the process as models and laws are inferred, it has the virtue of beginning with sense-making in the Chaotic and Complex Spaces. Too often thinking on scientific inference begins with the assumption that there is enough understanding of some aspect of the environment to have recognise cause and effect, perhaps even a hypothesis or putative model. Sense-making has not received the attention it should have in the Philosophy of Science. Rather the methodology of science has focused much more on the testing and validation of models and theories and the estimation of parameters, i.e. processes that fall in the Known and Knowable Spaces. Note that contexts which fall into those spaces are necessarily repeatable or commonly occurring in some sense. Repeatability has come to lie at the heart of the Scientific Method, which is in a sense to say, as we have above, that discussions of research and research planning have tended to ignore issues of sense-making that are needed to move from the Chaotic through the Complex and into those spaces in which the full gamut of scientific and statistical tools may be deployed.

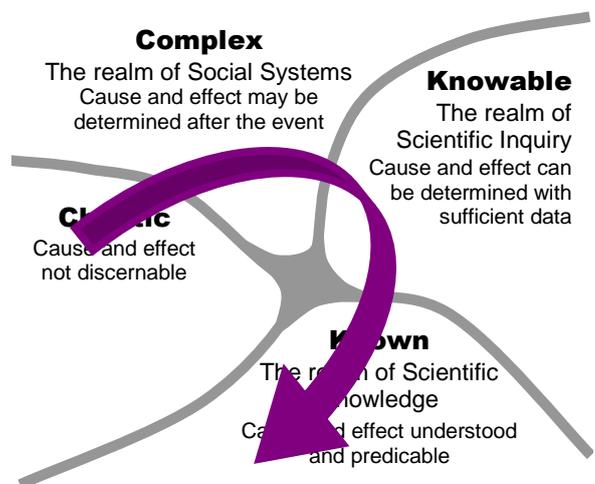


Figure 2: Learning and developing scientific understanding

So what forms might we expect for observations and data collection in the different spaces? In the chaotic and complex regions, we have no clear and accepted knowledge of how cause and effect might work. So we cannot design carefully controlled experiments in which we vary some inputs while keeping other constant. We might, I suppose, have some idea of what to vary, but without some clarity on cause and effect we would have no idea of what to control. So in the social sciences data collection in these spaces might involve case studies, interviews and questionnaires with many open ended questions. In physical and biological sciences, data collection would be based on observation: for instance, watching animal behaviours or mixing some chemicals in a test tube to see what happens. Only when we have begun to discern some patterns, some regularity does our understanding move into the Knowable and Known Spaces and we can design controlled experiments and trials.

Because of this, I find it sadly misplaced that many research theses and proposals that I see are clearly addressing behaviours in the Complex or Chaotic Spaces, yet they begin with tightly defined research hypotheses and a project plan in which they talk of the statistical power of the tests that they will perform rigorously on the data that they collect. Where is the recognition of the need for creative and reflective sense-making?

I have mentioned that dreaded word: statistics. It is a word that brings fear and lack of comprehension to many scientists or, worse, an irrepressible need to quote: "there are lies, damn lies and" It is easy to make fun of statisticians: we are not known for the excitement of our subject and seldom for our infectious sense of humour! But statistics, when used correctly, lies at the heart of scientific inference – and that is, of course, the rub. Researchers need statistics more than some of them realise. Some methods of statistics, e.g. estimation, confidence intervals and hypotheses tests, are based upon the assumption that there is a putative well-structured model of cause and effect. They also rely on repeatability. Thus these methods can only be applied correctly in the Known and Knowable spaces. These methods are often called *confirmatory* statistical methods because they are used to confirm that the scientist has the 'right' model and/or parameters. Such statistical methods are also beloved of journal editors because they demonstrate that some effect that is being discussed and exhibited in an article is not likely to have arisen by chance. Editors love them, therefore researchers are determined to use them, whether applicable to their data or not: after all, every researcher needs publications.

In the Chaotic and Complex Spaces one needs *exploratory* statistical methods, ones that allow the researcher to 'look' at the data from different perspectives to see if they can discern patterns. There are a whole host of methods here from box-and-whisker plots through multivariate statistics to modern data mining tools. All are tools to help find putative patterns: no more. Sometimes methods from confirmatory statistics, e.g. analysis of variance, can be applied loosely to explore data in the complex space, but any *p*-values or whatever should be taken as indicative, no more.

Thus when I am working with someone to plan a research project, I use Cynefin to discuss with them where their research is located: i.e. how much they know and whether they are still sense-making or whether they really do understand quite a lot about cause and effect. I find it works wonderfully well. If it sounds good to you in thinking about your research, then you can find more references through the paper cited at footnote 3.

Simon French
University of Warwick

Information Continuity, Participation and Governance of Disaster Reconstruction

Recent studies have evidenced unequal distribution of reconstruction funding among communities affected by natural disasters. This has been explained by different levels of social capital among individual members of the community that are able to mobilize and use personal networks to secure needed reconstruction resources. Increasingly complex reconstruction scenarios require a better understanding of the processes that might reinforce inequality and leave devastated communities vulnerable to future hazards. This presents challenges for governments and international donors to create resilient communities, and promote balanced distribution of funding. Understanding the role that new electronic mediums can have in supporting participation mechanisms, managing and distributing information and enabling continuity of information for improved governance mechanisms of reconstruction processes is necessary for innovations in disaster reconstruction strategies.

This study analyses the potential of Information and Communication Technologies (ICT) for participation in longer term governance of

reconstruction programs and how information management and continuity influence the process of reconstruction. After disaster relief work, where the main objectives are to rescue survivors, provide medical assistance, supply water, food and shelter to the local population, the later stages of recovery and reconstruction are too often disconnected from the information generated during the first stages.

However, it is these later stages where decisions are taken that determine how the economic texture of the affected region is revitalized by the distribution of resources. However, these mechanisms are not straightforward distribution processes. A natural hazard becomes a disaster when the reconstruction becomes a political event by the interaction and influence of different actors in the recovery and reconstruction, leaving already marginalized groups increasingly in a more vulnerable situation. Unequal distribution of reconstruction funds and more influential actor's capture of resources destined for the recovery of the community are partly attributed to local actor's abilities to cope on the basis of personal networks and higher levels of social capital.

Over the past 10 years, ICTs' penetration in developing countries has created new opportunities to access to government information. Furthermore, social networks, open data initiatives and e-government give the opportunity for citizens to actively participate and access information and communicate with institutions. In the area of disaster management, new communities of practice such as crisis informatics have become relevant for coordination among humanitarian actors. As past events in Haiti demonstrated, new ICT tools such as social media and GIS platforms provided essential support for ground mobilization in relief work. This work intends to consider the potential of information continuity by linking the information from the first stages of the disaster across the complete disaster cycle.



The theoretical framework draws from literature exploring E-Governance and ICTs in disaster

management. Current literature in the uses of ICTs in disasters focuses on early warning systems, damage reports and the use of technologies for coordinated needs assessments. But the potential of information systems to provide continuity to data for better policy and program design by local government and agencies involved in reconstruction and development is a crucial step in promoting resilient communities and mitigation strategies.

Through the gathering of data 24 months after the disaster in Chile, empirical evidence is providing important insights into how information was managed, integrated and considered for the design of reconstruction programs that ultimately influenced the transitions from relief to reconstruction, and determined the content of reconstruction programs will provide an important insight into links of the different stages after natural crisis events. The research is currently at the analysis stage to understand to what extent information flows and participation in disaster reconstruction strategies supported inclusive development programs.

This study focuses on the role of ICTs, information flows and management in continuity and longer term processes of governance and reconstruction. By focusing beyond crisis informatics and understanding how the continued access to government information and communication from the affected communities, local and regional government organisations potentially influenced reconstruction policies and recovery programs in affected communities of Chile.

The unit of analysis are the micro enterprises in the most affected areas of the 2010 Chile earthquake and tsunami. Located in the Bio Bio region near the coastal areas the cities of Concepcion, Talcahuano, Tome and Dichato where the main research sites. I visited the communities to survey small business owners and carry out in depth interviews with local and regional Government representatives, civil society organisations and other regional actors such as the local radio station, that become central to giving continuity to the reconstruction process. Currently, I am in a data analysis stage and preparing the final research report.

Jose DiBella
International Development
Research Centre

News

Call for items

We want your news and will, within the bounds of relevance to ISCRAM, publish most things here: News of Members, including changes of job/address; New Research Projects; PhD defences; and so on. Please keep items to about 300 words. For successful PhD defences, please include the title, a short abstract (~250 words), the name of the awarding institution and any other details, such as being an Alumni of an ISCRAM summer school. Please send all items to the Editor (simon.french@warick.ac.uk).

Upcoming Conferences and Seminars, Journal Calls for Special Issues

EURO Journal on Decision Processes: Special Issue on Risk Management

Call for Papers

www.euro-online.org/web/pages/1514/risk-management

Guest Editors:

Simon French, University of Warwick.
(simon.french@warwick.ac.uk)

Alec Morton, London School of Economics
(a.morton@lse.ac.uk)

Ortwin Renn, University of Stuttgart
(ortwin.renn@sowi.uni-stuttgart.de)

Most decision making involves dealing with uncertain consequences and managing these uncertainties. Thus decision process and risk management are intimately interconnected, although their literatures are based in distinct communities. The purpose of this special issue of the EURO Journal of Decision Processes (EDJP) is to explore that relationship and draw together different disciplinary perspectives on risk management and decision. We invite submissions covering, for example:

- state-of-the-art reviews of methods and applications
- analysis of how risk and uncertainties are handled or managed in decision making
- theoretical underpinnings of risk and methodological advances in risk analysis for decision making
- modeling of uncertainties, risks, preferences, multiple criteria, constraints, and interdependencies for the purpose of improving the quality of decision making

- development and evaluation of software and tools for risk management and decision processes
- embedding of analytical approaches in organizational decision making and risk management processes
- reflective reports of innovative applications and high-impact case studies on the interface between risk and decision making.

Deadline for submission September 30th, 2012.

IEEE Global Humanitarian Technology Conference

Seattle, 21-24 October 2012

www.ieeeghtc.org/home/

Conference Goals:

- Foster exchange of information and networking in the humanitarian field:
- Focus attention of businesses on emerging market opportunities and related technology enablers:
- Impact in positive and meaningful ways lives of disadvantaged billions of people around the world:
- Promote science, engineering and technology as key to development of solutions for disadvantaged communities and attract young people to these professional fields.

ISCRAM is a Technical Programme Partner and is organising a session on October 22nd.

Contact: Chris McManes, IEEE-USA Public Relations Manager, (+1-202-530-8356, c.mcmanes@ieee.org)

Joint Urban Remote Sensing Event (JURSE 2013)

Sao Paulo, Brazil, 21–23 April 2013

<http://www.inpe.br/jurse2013/>

You are invited to submit papers to the Joint Urban Remote Sensing Event (JURSE 2013), which brings together the Remote Sensing and Data Fusion over Urban Areas' (URBAN) and 'Remote Sensing of Urban and Suburban Areas' (URS) workshops.

Submission of full papers of no more than 4 pages is due October 15th, 2012.

Submission Due Date: November 1, 2012

**International Journal of E-Politics (IJEP)
Special Issue on Information Technology
and Homeland Security**

Call for Papers

Guest Editors:

Prof. Christopher G. Reddick, University of Texas at San Antonio, USA. Chris.Reddick@utsa.edu

Dr. Saqib Saeed, Bahria University Islamabad, Pakistan. saqib.saeed@gmail.com

Objective of the Special Issue:

The objective of the proposed Special Issue is to highlight technology design implications, user experiences and political implications of technology usage for homeland security. Research contributions in this special issue will provide guidelines for government agencies to better understand the citizen's perspective. The contents in this special issue are of interest for researchers working in the domains of information systems, human computer interaction, organizational science, and political science

Topics to be discussed in this special issue include (but are not limited to) the following:

- Cost benefit studies of technology adoption for homeland security
- Digital divide and technology adoption for citizen security
- Global politics and homeland security
- IT and effectiveness of security organizations
- Limitations, challenges and barriers to ICT adoption for government bodies
- Political, ethical, security, privacy, and legal issues
- Politics of the IT function and role in security organizations
- Precision and accuracy of homeland security IT infrastructure
- System design for homeland security applications
- User experiences with homeland security systems (e.g., body scanners, etc.)

Researchers and practitioners are invited to submit papers for this special theme issue on Information Technology and Homeland Security on or before November 1, 2012.

For more details and submission process, see: <http://www.igi-global.com/calls-for-papers-special/international-journal-politics-ijep/1147>.

**The 10th International Conference on
Information Systems for Crisis Response
Management
(ISCRAM 2013)**

Baden-Baden, Germany, 12-15 May 2013

<http://www.iscram2013.org/>

First Call for Papers



ISCRAM 2013 welcomes practitioners and scientists working in the field of information systems for crisis response and management.

Modern societies are faced with numerous risks. Along with the growing interrelatedness and the dependence on technologies and complex infrastructure systems, the vulnerability of societies, economy and environment increases. Cascading effects and feedback loops that exacerbate the consequences of disasters become more and more important. In these situations, which are characterised by complexity and uncertainty, a holistic approach for crisis response and management is required.

"Holistic crisis management" sounds like a good idea, but what do we really mean by it?

Holistic crisis management aims at the interdisciplinary development and design of information systems that enable better crisis response, planning and preparedness, mitigation and training by following integrated approaches that combine organisational, behavioural, technical, economic and environmental aspects:

- modelling and assessing the consequences of disasters by taking into account the complex interrelations between the victims, actors, organisations and critical infrastructure systems
- enhancing the resilience of societies, organisations and critical infrastructures
- developing early warning systems and facilitating the communication of risk
- designing and developing information systems that facilitate coordination and

communication between and within organisations

- designing and developing decision support systems that are tailored to the specific needs and requirements of the end users

Researchers and practitioners are invited to present innovative ideas and application experiences that address the practical and technical challenges in development and implementation of Emergency Management Information Systems (EMIS) in general, and holistic ones in particular.



Among the many topics of interest for crisis management, ISCRAM 2013 focuses inter alia on the modelling and simulation of critical infrastructure disruptions and their consequences for crisis management and recovery. Further key topics that should be addressed from a holistic perspective include the use of information and communication technologies, sensor techniques and sensor data fusion for early warning, crowdsourcing and crowd tasking, social media, healthcare, humanitarian challenges, intelligent systems and many more important issues that will be announced in the first call for papers.

More concretely, the following areas will be covered:

- Command and Control studies
- Community Engagement in Crisis Management
- Consequence Modelling and Decision Support
- Crowdsourcing and Crowdtasking
- Decision Support Methods and Tools
- Early Warning and Expert Systems for Disaster Management
- Education and Training
- Event-Driven Techniques and Methods for Crisis Management
- Geographic Information Science and Technology (GIS&T) for Crisis Response and Management
- Human Experiences in the Design of Crisis Response and Management Services and Systems
- Human-computer Interaction and Visual Analytics

- Humanitarian Healthcare
- Intelligent Systems
- Inter-Organizational Exercises and Operations
- Modelling and Simulation
- Planning, Preparedness and Foresight
- Research Methods
- Resilience and Vulnerability of Critical Infrastructures (CI)
- Sensor Techniques and Sensor Data Fusion for Early Warning
- Serious Games for Crisis Management
- Social Media and Collaborative Systems
- Social, Legal and Ethical Aspects of Emergency Management Information Systems
- Use of Information and Communication Technologies Including Wireless Connectivity Management and Sensor Networks for Emergency Response

The papers will be clustered into tracks. A limited number of papers will be considered for an open track.

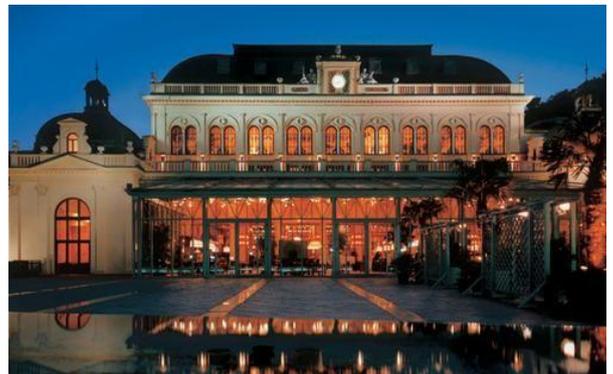
Key Dates:

Deadline for track & session proposals
– September 1st, 2012

Deadline for full paper submissions
– November 15th, 2012

Deadline for work-in-progress papers, practitioner papers, posters
– January 15th, 2013

Deadline for doctoral student colloquium papers
– February 15th, 2013



Diary of Upcoming Events and Calls

When	Event/Call	Contact
30 Sep 2012	EURO Journal on Decision Processes Special Issue on Risk Management	www.euro-online.org/web/pages/1514/risk-managemen
17-19 Oct 2012	1 st ISCRAM-ASIA Conference on Information Systems for Crisis Response and Management	www.iscram.org
21-24 Oct 2012	IEEE Global Humanitarian Technology Conference. Seattle	www.ieeeghtc.org/home/
1 Nov 2012	International Journal of E-Politics (IJEP) Special Issue on Information Technology and Homeland Security	http://www.igi-global.com/calls-for-papers-special/international-journal-politics-ijep/1147
21-23 Apr 2013	Joint Urban Remote Sensing Event (JURSE 2013)	http://www.inpe.br/jurse2013/
12-15 May 2013	The 10 th International Conference on Information Systems for Crisis Response Management (ISCRAM 2013)	http://www.iscram2013.org/