Applying AmI Technologies to Crisis Management
Workshop at AmI2012

Monica Divitini[1], Babak Farshchian[2], Jacqueline Floch[2], Ragnhild Halvorsrud[2], Simone Mora[1], and Michael Stiso[2]

[1] Dept. of Information and Computer Science, NTNU, Trondheim, Norway
`{divitini,simonem}@idi.ntnu.no`
[2] SINTEF ICT, Oslo, Trondheim, Norway
`{Babak.Farshchian,Jacqueline.Floch,Ragnhild.Halvorsrud,`
`Michael.Stiso}@sintef.no`

Abstract. The workshop aims to bring together researchers and practitioners working on the application of AmI to crisis and disaster management. Because of their pervasiveness and ease of use, AmI technologies hold a great potential to support crisis management in an efficient and effective way. Focus will be on better understanding (1) the strengths of the AmI paradigm, (2) challenges to its application, and (3) its potential in the development of innovative solutions. The workshop is open to papers from different standpoints, including platform and user interaction issues, methodological approaches, and specific applications.

Keywords: Ambient Intelligence, Crisis Management, innovative AmI solutions.

1   Introduction

Natural and man-made disasters are on the rise, with sources reporting on a five-fold increase of natural disasters in the last 35 years[1]. In 2010, DG ECHO (the EU Directorate for Humanitarian Aid and Civil Protection) reported an EU expenditure of €1115 million to respond to new or protracted crises, and 373 natural disasters killing around 300000 people[2].

Recent years have seen an increasingly rapid introduction and advancement of technologies that allow unprecedented levels of effectiveness in and control over a crisis response. ICT solutions proposed for supporting crisis management vary considerably in scope and complexity, ranging from organizational workflow systems to coordinate different forces that are employed in specific events up to platforms like Ushahidi (http://ushahidi.com/) for crowd sourcing and the usage of Twitter (twitter.com) to share information among the population.

---

[1] `http://www.euractiv.com/foreign-affairs/europe-beef-response-natural-disasters-news-499193`
[2] EU DG ECHO, Annual Report 2010, available at `http://ec.europa.eu/echo/files/media/publications/annual_report/annual_report_2010.pdf`

The workshop will facilitate knowledge exchange among the community of re-searchers interested in AmI for crisis management, creating opportunities for syner-gies and for transferring knowledge across institutional and geographical boundaries.

2   Relevant Topics

Crisis management is a particularly relevant application domain for AmI. AmI has the potential to increase the efficiency and effectiveness of crisis management, and there-by to contribute to saving lives, reducing risks for rescue teams and lowering costs. Several example solutions are described in the research literature, such as monitoring of environmental data under hard conditions, impact of information presentation on decision-making, rescuer teams management supported with physiological data monitoring, situational awareness support for rapid crowd evacuation.

The workshop aims at offering to researchers and practitioners a space to reflect on where these increasingly pervasive and ambient technologies are going, what they will make possible, and how they will be used. Focus is on challenges connected to the use of AmI in crisis management as well as the opportunities to use AmI to conceive innovative solutions, e.g. empowering not only traditional actors, but also the population at large; supporting not only management, but also promoting continu-ous learning and training. Relevant topics include platforms issues, user interaction in challenging environments, methodologies and applications.

3   Organization

The workshop is jointly organized by three EU IST research projects that investigate from different perspectives ICT support for crisis management:

- *BRIDGE* (http://www.bridgeproject.eu) aims at building a system to support technical and social interoperability in large-scale emergency management.
- *MIRROR* (http://www.mirror-project.eu/) aims at developing ICT tools for supporting workplace reflection and learning. Training of crisis workers is a core application domain of the project.
- *SOCIETIES* (http://www.ict-societies.eu/) aims at extending the application of pervasive computing beyond the individual to communities of users. Disaster management is chosen as one area for the evaluation of the proposed solutions.

More information about the workshop is available at the workshop website: http://ami4cm.wordpress.com/