SASO 2013 Panel

# Social Implications of SASO Systems & Technologies

Drexel University, 12 September 2013

**Abstract**: Adaptive systems with emergent properties, exemplified by machine learning, autonomic computing, and self-organisation are making the transition from laboratory and field trial to fully-fledged deployment. However, the 'Ur' applications of adaptive and autonomic systems seem to be primarily 'hidden' to the user: for example data centre management, mobile networks, swarm robotics, and so on. The aim of this panel is to consider whether or not SASO systems are destined to be forever closed to human involvement; and if not, what will be the nature of 'human-SASO system interaction', and in particular what are the social implications of SASO-systems, and what impact might they have when adaptive systems are reasoning about qualitiative matters of human concern -- legal or organisational rules, health and well-being, environmental issues, dispute resolution, to name but a few.

## Panelists

Dr Jeremy Pitt (chair), Imperial College London Jeremy Pitt is a Reader in Intelligent Systems in the Department of Electrical & Electronic Engineering at Imperial College London, where he is also Deputy Head of the Intelligent Systems & Networks Group. His research interests focus primarily on developing formal models of social processes using computational logic, multi-agent systems, and autonomic computing. He is currently working on ideas related to self-organising electronic institutions, computational justice, interoceptive collective awareness, and social capital. He is also concerned with the social implications of technology, and is editor of the collected works "This Pervasive Day" (IC Press, 2012) and "The Computer After Me" (to appear).

Dr Ingo Scholtes, ETH Zurich Ingo Scholtes is a postdoctoral researcher at the interdisciplinary chair of Systems Design at ETH Zurich. He did his PhD in computer science at the University Trier and has spent some time at CERN, implementing a large-scale P2P online monitoring system for the ATLAS detector at the LHC. Apart from research on the theory of complex dynamic networks, he is particularly interested in complexity and collective dynamics in information and communication systems. This includes both technical systems like computer networks, distributed protocols, and P2P systems, but also socio-technical systems like collaborative software engineering processes, information systems and online social networks.

Professor Mihaela Ulieru, The Impact Institute Aiming to make ICT an integral component of policy making for a healthier, safer, more sustainable, and innovation-driven world Professor Mihaela Ulieru works with the United Nations and many governments around the world to achieve the true promise of the Knowledge Society. She led several large scale projects targeting the management of complex situations through more organic ways of governance: IT Revolutions, Industrial Informatics, Future of Medicine, Living Technologies, Socio-Technical Combinatorics, Adaptive Risk Management and Emulating the Mind. She was awarded the 'NORTEL Chair in Intelligent Systems' and the 'Canada Research Chair in e-Society' to explore societal transformation in the digital economy and the emergence of participatory platforms.

## Professor Giuseppe (Peppo) Valetto
## Fondazione Bruno Kessler, Trento University

Giuseppe (Peppo) Valetto is a senior researcher at Fondazione Bruno Kessler, Trento, Italy. From 2007 to 2013 he was an assistant professor in Software Engineering in the Department of Computer Science at Drexel University. He has been involved in both industrial and academic research since 1994, working at Xerox Research in Grenoble (France), CEFRIEL – Politecnico di Milano (Italy), Telecom Italia Lab in Torino (Italy), and IBM Research in Hawthorne, NY. Peppo holds a Laurea in Electronic Engineering from the Politecnico di Torino (Italy), and an MS and Ph.D. in Computer Science from Columbia University, New York, NY, USA. His research interests include the engineering of autonomic and self-adaptive software systems, studying in particular mechanisms and models for bio-inspired self-organization; and tools, methods and processes to analyze and support collaboration and teamwork in large-scale, distributed software development organizations.