SOCIONICAL   E·S·R·C ECONOMIC & SOCIAL RESEARCH COUNCIL   LSE COMPLEXiTY research programme

Applied Complexity Theory as the New Framework for Management & Public Policy

ESRC Complexity Research Seminar 6

8 July 2010 @ LSE
10.00-17.00 (coffee and registration from 09.30)

Post 7/7 and 9/11: what lessons have been learnt on evacuating, following a major disaster? What can state of the art modelling, simulations and a complexity theory approach contribute to policy?

The seminar aims to bring together policy makers, first responders and academics. Disasters happen, but can fatalities be reduced through the use of technology and better information to enable evacuees to make life-saving decisions? We cannot set up experiments with real disasters, but we can simulate them on a computer to study evacuation dynamics. The seminar speakers will discuss how first responders deal with such emergencies in practice and how academics model and simulate these disasters. Can these state of the art models help save lives? How can a complexity theory approach help policy makers?

The Cabinet Office, Home Office, Police, Emergency Services, London Underground and other relevant bodies will be involved as speakers and participants. The speakers include:

➢ David Barnes, Civil Contingencies Secretariat, Cabinet Office , Setting the context: *UK Resilience: Not as simple as it seems'*
➢ John Pooley, Head of Emergency Preparedness, London Ambulance Service, UK: "*On the Ground – A First Responder's Experience*"
➢ Michael Hallowes, Detective Chief Superintendent, Head of Strategic Operations, National Policing Improvement Agency, UK; being represented by David Lindridge, Interoperability Programme, NPIA
➢ Graham Chick, CEO of Gematech, a Specialist Telecoms Technology Company, which focuses on the design and development of new and innovative technology
➢ Prof. Dr. Paul Lukowicz, Embedded Systems Lab, University of Passau, Germany: *Overview of SOCIONICAL and focus on the emergency stream of work modelling and simulations*
➢ Prof. Dr Alois Ferscha, Institut für Pervasive Computing, Johannes Kepler Universität, Linz, Austria: *Overview of work being done on 'intelligent' transport devices and on how the emergency and transport streams of work will be integrated,*

developing new modelling techniques based on complexity theory

➢ Panel Discussion on the contribution of modelling, simulations and a complexity theory approach to policy, regarding evacuation following a major disaster.

Please email your completed application form to Rahoul Masrani at Complexitygroup@lse.ac.uk by 30 June 2010. The seminar is free but places are limited and early registration is advised. The application form is available on our website, www.lse.ac.uk/complexity. Please note that the seminar will be video recorded and that the recording will appear on the Complexity Group website for further dissemination.

The LSE Complexity Research Group, together with five other Universities (King's College London, Open University, Cranfield, Lancaster and Oxford Brookes) was awarded an ESRC grant to run 6 seminars under the overall title *"Complexity Theory as the New Framework for Management & Public Policy"*. The last seminar in the series will be held on 8 July 2010 in conjunction with the FP7 European project SOCIONICAL.

SOCIONICAL is using complexity theory to model and simulate evacuation dynamics after a major disaster such as the 7 July 2005 London underground bombings; this is the *emergency* stream of work which is also studying how essential information can be disseminated during a disaster to aid the evacuation and reduce fatalities. One technology being tested is the use of ambient intelligent computing devices (e.g. mobile phones) to provide the necessary information, on what is happening, which are the clear exits and which the safest paths; and how this information may affect the decisions of survivors. The second stream of work is focusing on transport and is studying new 'intelligent' devices in cars that provide drivers with information about the state of traffic and how other drivers are behaving. The challenge is integrating the two streams of evacuation and traffic, and developing new modelling techniques based on complexity theory.