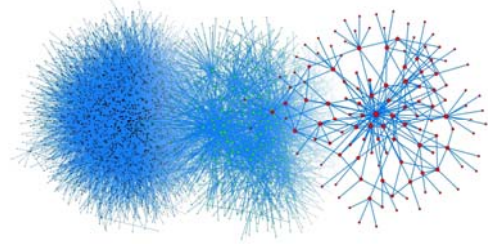


THE JAMES MARTIN
21ST CENTURY SCHOOL
UNIVERSITY OF OXFORD

21ST CENTURY SCHOOL
SEMINAR SERIES

“COMPLEXITY AND SYSTEMIC RISK”



THURSDAY 25 FEBRUARY 2010, 3.30-5PM

Professor Alessandro Vespignani

Professor of Informatics, Indiana University Bloomington, USA

"Predicting the Behaviour of Techno-Social Systems: How Informatics and Computing Help to Fight Off Global Pandemics"

Summary: We live in an increasingly interconnected world of “techno-social” systems, where infrastructures composed of different technological layers are interoperating within the social component that drives their use and development. The multi-scale nature and complexity of these networks are crucial features in understanding and managing them. In the last decade advances in performance in computer technology, data acquisition and complex networks theory allow the generation of sophisticated simulations on supercomputer infrastructures to anticipate the spreading pattern of a pandemic, predict the traffic pattern of successful web sites or provides insight and recommendations in the case of natural or intentional disruptive events. In particular I will use the example of the current H1N1 pandemic and present computing tools with the ambition of anticipating trends, evaluating risks and eventually managing future public policies in real time.

*The seminar takes place in the Old Indian Institute Building
(corner of Holywell and Catte Streets).*

www.cabdyn.ox.ac.uk | www.21school.ox.ac.uk