Hilary Term 2010

SEMINAR SERIES

Saïd Business School, University of Oxford

Convenors: Felix Reed-Tsochas, Institute for Science, Innovation and Society, Saïd Business
Eduardo López, Saïd Business School

Our meetings intend to provide a forum for rigorous research (in a broad range of disciplines) focusing on complex adaptive systems, using methods and techniques such as agent-based modelling and complex network analysis. Since potential areas of application for such approaches can be located across the social, natural and engineering sciences, our aim is to involve participants from a wide range of departments in Oxford. We welcome talks which focus on particular areas of application and associated technical issues, but also encourage contributions which address more fundamental conceptual or mathematical problems. The CABDyN Seminar Series is one of the activities of the CABDyN Research Cluster.

Tuesday 9th March, 12:30-14:00

Gibbs Room, Keble College

Dr Serguei Saavedra
Kellogg School of Management and NICO, Northwestern University

"Instant-Messaging Networks and the Collective Genius of Profitable Day Traders"

Synchronicity has been called one of the most pervasive and mysterious drives in all of nature. Analyzing unique, fine-grained stock trader data on more than 1 million moment-to-moment trades and over 2 million instant messages for a two year period that includes the 2008 crash, we report three results regarding sync and performance. First, we find novel patterns of synchrony among stock traders and a positive association between it and profitability. Independent traders experience periods of trading simultaneity despite trading different stocks. Second, like other forms of sync and collective genius, trade sync and profitability have a parabolic association. As traders move from asynchronic to highly synchronic trading their profits increase up to a threshold of sync and then reverse. Third, we find that traders' non-overlapping instant messaging networks trigger sync and explain its relation to system performance. We discuss how synchronicity may reduce information uncertainty and generate collective benefits in diverse human systems of collaboration and competition.

For further information contact info.cabdyn@sbs.ox.ac.uk
Seminar webpage: http://sbs-xnet.sbs.ox.ac.uk/complexity/complexity_seminars.asp
Please note: Although the seminar programme detailed above was correct at the time of printing, seminar arrangements are subject to change so, for the latest information please check seminar webpage.