

Hilary Term 2008

CABDyN SEMINAR SERIES
Saïd Business School, University of Oxford



Convenors:

Felix Reed-Tsochas, *James Martin Institute, Saïd Business School*
Jukka-Pekka Onnela, *Physics Department & 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 (<http://sbs-xnet.sbs.ox.ac.uk/complexity/>).

Tuesday 11th March, 12.30 – 2.00 pm

JMI Seminar Room, Saïd Business School

Professor R.I.M. Dunbar
Institute of Cognitive & Evolutionary Anthropology
University of Oxford

**‘Cognition vs time as constraints
in the structuring of human social networks’**

ABSTRACT

Human social networks are both limited in size and hierarchically structured. In effect, we are surrounded by a series of circles of acquaintanceship that scale by a ratio of ~ 3 as a function of the emotional closeness of the relationships we have with individual members and the frequency with which we contact them. We know that there is a cognitive constraint on network size (the so-called “social brain hypothesis”), but we don’t know whether the constraint is top down (with the structuring being some kind of fragmentation effect) or bottom up (with the structuring being a small worlds effect). However, there is also evidence from both primates and humans to suggest that time might be an important constraint on the quality of relationships (thus generating the hierarchical scaling effect).

Sandwiches and drinks will be provided

For further information contact info.cabdyn@sbs.ox.ac.uk

Seminar webpage: http://sbs-xnet.sbs.ox.ac.uk/complexity/complexity_seminars.asp