

CABDyN / INET Oxford SEMINAR SERIES

Keble College - Hilary 2014

For further information
please contact the
Cabdyn Administrator:

info.cabdyn@sbs.ox.ac.uk

01865 288785

Seminar webpage:
[www.cabdyn.ox.ac.uk/
complexity_seminars.
asp](http://www.cabdyn.ox.ac.uk/complexity_seminars.asp)

Please note: although
the seminar
programme detailed
was correct at time of
printing, seminar
arrangements are
subject to change – for
the latest information,
please check the
seminar webpage.

‘Persistence of social signatures in human communication’

Felix Reed-Tsochas

James Martin Lecturer in Complex Systems
CABDyN Complexity Centre
Complexity Economics Programme, INET Oxford

Tuesday 29th January, 12.30 -14.00
Roy Griffiths Room (ARCO), Keble College

ABSTRACT:

In this talk I will discuss the findings of our recently published study of a small group of individuals tracked over 18 months. We combined survey data and details from mobile phone call records to study the communication patterns and social ties of the individuals over this period. The call records provided a complete list of time-stamped calls made by the study participants to everyone in their networks, whereas the surveys provided specific information about the people in a network, including emotional closeness, time between face-to-face contact, and all phone numbers attached to individual network members. We found that the pattern of how individuals distribute time and attention across their network of social relationships, something that we called ‘social signature’, is broadly similar with most effort invested in a small number of strong relationships. Although the social signature varies between individuals, it appears to persist for a given individual, presumably as a consequence of constraints on time, emotional capital, and cognition. In what is widely perceived as an era of ‘big data’, it is worth thinking about the value of smaller-scale but highly detailed studies like this one. One motivation for our work is to develop an understanding of patterns of behaviour based on in-depth and small-scale studies, which can help us decode patterns that we see in large-scale studies where we typically know very little about individual’s attributes or the reasons for their actions.

Jari Saramäki, E. A. Leicht, Eduardo López, Sam G. B. Roberts, Felix Reed-Tsochas, and Robin I. M. Dunbar (2014). Persistence of social signatures in human communication. *Proceedings of the National Academy of Sciences* 111(3): 942-947.