



SAID BUSINESS SCHOOL, University of Oxford

SEMINAR SERIES / MICHAELMAS 2010

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

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Seminar webpage:
www.cabdyn.ox.ac.uk/complexity_seminars.asp

Sandwiches and drinks will be provided

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.

Monday 25th October
(12.30pm - 2.00pm) James Martin Seminar Room

Prof Cosma Shalizi
Department of Statistics at Carnegie Mellon University

'Homophily, contagion and confounding: pick any three'

ABSTRACT

Your behaviour can be predicted from that of your social-network neighbours. To what extent is this due to being influenced by your friends ("contagion"), as opposed to selecting friends who were already similar to yourself ("homophily")? We show that these two mechanisms are confounded with each other, and can only be separated, in non-experimental data, using untestable assumptions about the form of the dynamics and the completeness of observations (or both). Simple examples show that asymmetries in regression coefficients cannot identify causal effects, and that imitation (a form of social contagion) can produce substantial correlations between an individual's enduring traits and their choices, even when there is no intrinsic affinity between them. We also suggest some possible constructive responses to these non-identifiability results. (Joint work with Andrew Thomas)



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