



SAID BUSINESS SCHOOL, University of Oxford

SEMINAR SERIES / Trinity 2012

Convenor: Felix Reed-Tsochas, CABDyN Complexity Centre, 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.

'Agent-based computational modeling and public health: progress and potential'

Dr Ross Hammond

Centre on Social Dynamics and Policy, Brooking Institution

Tuesday 29th May 2012, 12.30 -14.00
Seminar Room 13, Saïd Business School

Ross A. Hammond is a senior fellow in Economic Studies at the Brookings Institution, where he is director of the Centre on Social Dynamics and Policy. His primary area of expertise is modeling complex dynamics of social, economic, political and public health systems using mathematical and agent-based computational methods. His current research topics include obesity, behavioral epidemiology, corruption and anti-corruption policies, ethnocentrism and inter-group relations, and the dynamics of trust.

ABSTRACT:

Agent-based modeling (ABM) is a "bottom-up" modeling technique made possible by recent advances in computing, and has over the past decade become an important tool in the study of infectious disease. By simulating epidemics within artificial societies, researchers have been able to draw insights on the behavior of pathogens and design innovative public health policies in response. In this talk, I describe these advances in modeling and discuss the promise of ABM for understanding a broad range of public health problems, including chronic diseases like obesity. This research agenda is currently drawing on expertise from a wide range of fields - including medicine, neurobiology, sociology, and economics - and will be a critical component of future public health policy.



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