



Cambridge Society for the Application of Research

Churchill College  
Storey's Way  
Cambridge  
CB3 0DS

[www.csar.org.uk](http://www.csar.org.uk)

## Human Contact Networks and the mathematics of how diseases spread

Dr Jon Crowcroft,  
Marconi Professor of Communications  
The Computer Laboratory, University of Cambridge

7.30 p.m., Monday 29<sup>th</sup> November, 2010  
The Wolfson Lecture Theatre, **Churchill College**, Storey's Way, Cambridge

### **About this lecture:**

#### **Dr Crowcroft writes:**

"We have been studying epidemics for a very long time. There are some simple, elegant mathematical abstractions like the Susceptibility/Infectiousness/Recovery (SIR) model. There is also a large body of empirical work. This includes the studies on geo-information systems, which date back to the "Ghost Maps" of the Reverend Henry Whitehead and Dr. John Snow of the famed London Cholera Epidemic.

In this talk, I will describe current work which makes use of smart mobile devices to map human contact networks. Explicit and implicit self-reporting of symptoms can be used to provide a more detailed understanding. Potentially, this can influence the behaviour of a population and help control the rate of spread of an epidemic."

### **About the speaker:**

Professor Jon Crowcroft is the Marconi Professor of Networked Systems in the Computer Laboratory, of the University of Cambridge, and a fellow of Wolfson College. Hitherto, he was Professor of Networked Systems at UCL in the Computer Science Department. Professor Crowcroft has supervised over 45 PhD and over 150 MSc students.

Professor Crowcroft is a Fellow of the ACM, the British Computer Society, the IET, the Royal Academy of Engineering, and the IEEE. He was a member of the IAB 96-02, and went to the first 50 IETF meetings. He was general chair for the ACM SIGCOMM 95-99, and is a recipient of Sigcomm Award in 2009.

Dr Crowcroft's Home Page may be found at: <http://www.cl.cam.ac.uk/users/jac22/>

## The Organising Secretary adds....

This will be the last lecture in the Wolfson Lecture Theatre for some while. The first three lectures of Lent Term will take place elsewhere; hopefully, somewhere nearby, and where we can easily park our cars!

Keep a watch on our website and our flyers; all will be made clear.

Coffee will be available in the foyer outside the Wolfson Lecture Theatre from ~7.00 p.m.

Best Regards

Richard Freeman

Organising Secretary

Phone 01799 525 948 (home)

07500 444 985 (mobile)

01707 398 729 (work)

[richard.freeman@ntlworld.com](mailto:richard.freeman@ntlworld.com)

[richardf@exemplas.com](mailto:richardf@exemplas.com)

---

For those who would like to become **full members** of the CSAR, **Individual Membership** costs £25 for the academic year. **Family Membership** costs £35 and entitles the Member to bring a guest (including family) to any CSAR meeting. Members are also eligible to take part in our exclusive, members-only visits. These are often to places not open to the public. Non-members may attend individual lectures upon payment of a fee of £3.00 each. **Postgraduate students** are eligible for free membership, but are required to their details with our Membership Secretary (Dr Nigel Bennée, email: [nigel@lucidata.com](mailto:nigel@lucidata.com)).

If you wish to join and enjoy the many benefits of membership, please complete the following, and return it with payment to a CSAR officer, or post it to Barry Thompson at the address below. Cheques payable to '**Cambridge Society for the Application of Research**' may be handed to one of our officers, or sent by post to: **Barry Thompson**, Hauser Forum, 3 Charles Babbage Road, Cambridge CB3 0GT (**note new address**).

NAME

(and title):

ADDRESS:

CONTACT (EMAIL and PHONE):

---

### CSAR Council

Prof Brian J Ford (President)

Sir Sam Edwards (Past President)

Dr Peter Forster (Vice President)

Mr Robin Bligh (Honorary Treasurer)

Dr Richard Freeman (Organising Secretary)

Dr Nigel Bennée (Membership Secretary)

Susan Gurney (Organiser for Visits)

Mrs Elizabeth Platts

Mr Jim Cleland

Dr Illesh Bidd