Call for Papers

Ad Hoc Networks Journal (Elsevier)

Special Issue on Social-Based Routing in Mobile and Delay-Tolerant Networks

For years, humans have been building a global communications network set eventually to bring all members of our species within range for potential communication and to support new types of networked applications. The totality of this network is growing, resulting in an increasingly connected world. While the network's core – what we generally think of as the Internet – is highly connected and well suited for routing via conventional routing algorithms, the network's expanding frontiers have infrastructure that suffers from intermittent connectivity and changes in topology that can be difficult or impossible to predict. Examples include the infrastructure-challenged environments found in developing countries, the interplanetary networks whose nodes are tasked with the exploration of our solar system but also the more conventional mobile networks used in developed countries.

While research into routing in infrastructure-challenged environments is not new, researchers have for many years assumed traffic and node movement to be random. In reality, however, mobile nodes are of course used by people, whose behaviours are better described by social models. This has opened up new possibilities for routing, since the knowledge that behaviour patterns exist allows better routing decisions to be made. Because humanity's global (and even extra-global) network is set to grow considerably along infrastructure-challenged boundaries over the next years, such social-based routing could play an important and very real role in helping to interconnect our species and to support new types of networked applications that reside on the infrastructure-challenged boundaries of the network.

This special issue of *Ad Hoc Networks* will bring together state-of-the-art research contributions concerned with the use of knowledge about social behaviour for the routing of data on the most challenging boundaries of humanity's growing network: mobile networks and delay-tolerant networks.

Topics of interest include, but are not limited to:

- Architectures, algorithms and heuristics for social-based routing
- Models of mobility and traffic for evaluating social-based routing algorithms
- Metrics for measuring and reasoning about social networks in mobile and delay-tolerant computing
- Story-carry-forward systems
- Emergent behaviour in mobile and delay-tolerant networks
- Measurements from real world systems whose components exhibit social behaviour
- Applications that rely on social-based routing for information flow
- Environmental and wildlife monitoring systems where social behaviour plays a role
- Social-based models for privacy and trust in mobile and delay-tolerant networks

Original papers describing completed and unpublished work not currently under review by any other journal, magazine or conference are solicited. Although *Ad Hoc Networks* is a Computer Science journal, papers that document translational research from other domains, such as Sociology or areas of Biology where social behaviour is observed, are particularly welcome and encouraged.

Paper Submission

Please submit papers via the automated paper submission system at:

http://ees.elsevier.com/adhoc/

The papers must be less than twenty single-column double-spaced pages, excluding figures, tables and

references, using 11-point font size. For detailed formatting instructions, please refer to the guidelines

available at the *Ad Hoc Networks* journal web site:

> http://www.elsevier.com/locate/adhoc/

To ensure that your manuscripts is correctly identified for inclusion into the special issue, please make sure to select "SI: Social-Based Routing in Mobile and DTN" when you reach the "Article Type" step in the submission process.

Deadline for paper submission:	30 June 2010
Notification of acceptance:	30 September 2010
Final, camera-ready submission:	30 November 2010
Publication:	(subject to the editorial calendar)

Guest Editors

Dr Mads Haahr
Trinity College Dublin, Ireland
http://www.scss.tcd.ie/Mads.Haahr/
Mads.Haahr@cs.tcd.ie

Prof. Jon Crowcroft
University of Cambridge, United Kingdom
http://www.cl.cam.ac.uk/~jac22/
Jon.Crowcroft@cl.cam.ac.uk