

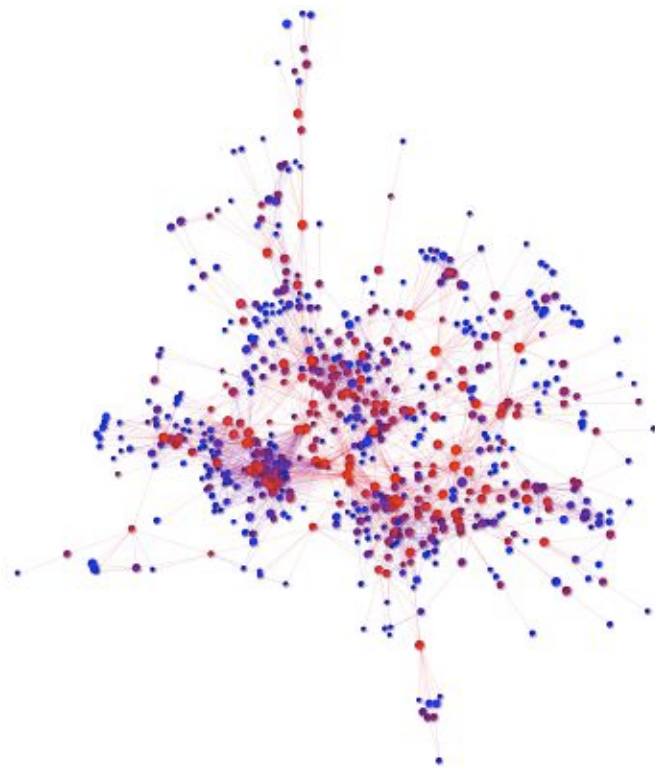
Pervasive and Social Computing

George Roussos

Birkbeck College, University of London

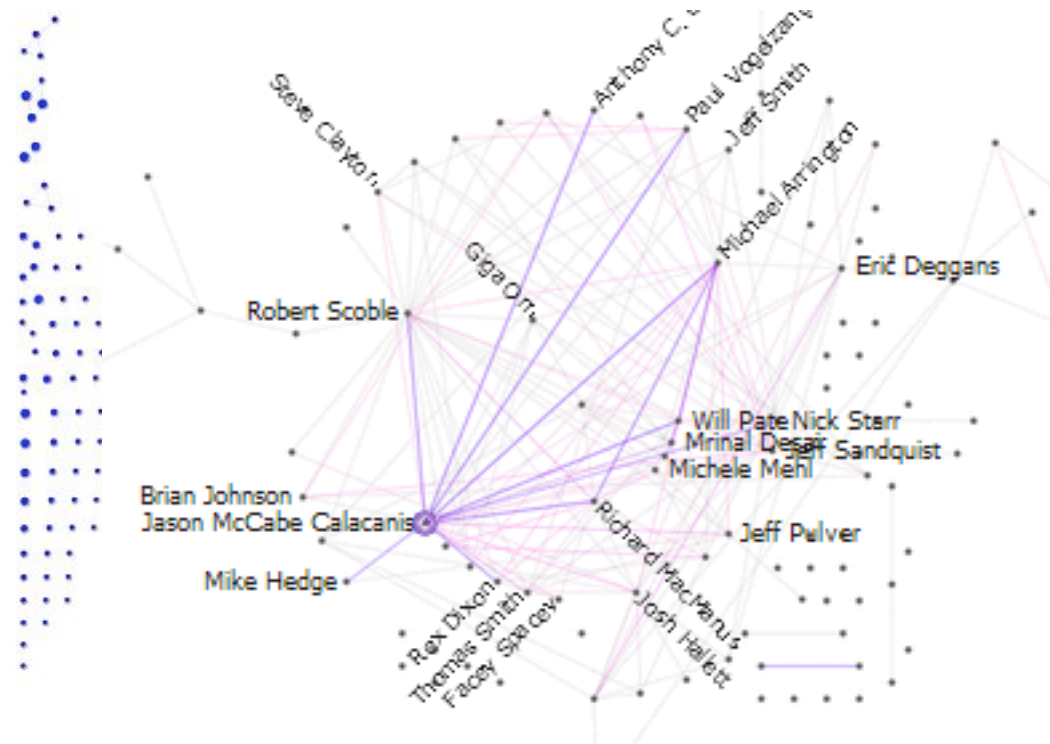
g.roussos@bbk.ac.uk

Convergence of cyber and physical



Real-world social network inferred via BT

Kostakos et al, 2010, ACM TOCHI



Facebook personal social graph

<http://nexus.ludios.net/>

Participation in public life

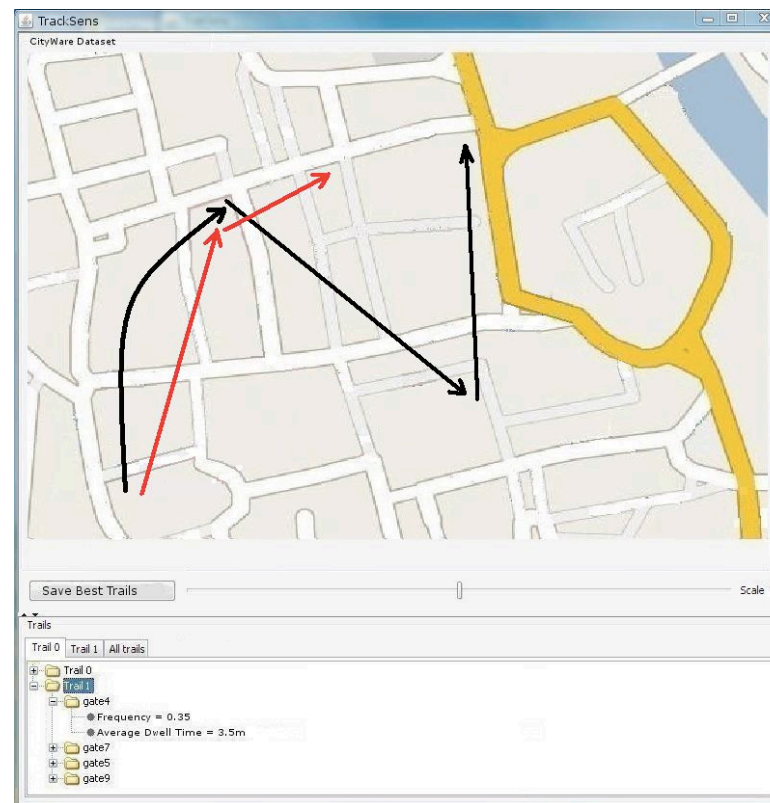
The screenshot shows the 'URBAN TAPESTRIES' website. At the top, there's a navigation bar with 'Sign Out' and 'Sign Up' links. Below the header, there's a 'My UT Home / Google Maps /' link. The main content area is divided into several sections: 'Recent Threads' with a list of threads like 'thursday', 'Proboscis', 'tuesday', 'sunday evening', and 'music'; 'Recent Pockets' with a list of pockets like 'oranges', 'euston station', 'rainbow', 'add to an old pocket', and 'Proboscis HQ'; 'Recent Authors' with a list of authors like 'guest' and 'gilesiane'; and a 'Featured Thread' section. The central part of the page features a map of London with numerous red and yellow markers indicating 'UT Pockets'. To the right of the map, there's a 'Locate' section with input fields for 'Home (Change home)', 'Lat / Long', 'Postcode (London only)', and 'Address (London only)', and a 'Search' section with input fields for 'For pockets and threads:', 'With tag (optional)', 'By author (optional)', and 'By date (optional)'. The bottom of the page has a 'Featured Thread' section with the thread name 'karen' and 'No. of Pockets: 0'.



Angus et al, 2009, IEEE Pervasive

Patterns of human behaviour

Routines
Mundane behaviours
Participation
Authoring
Power of sharing
Anonymity
Freedom of expression



Collective intelligence
Representations
Trails
Metrics of significance
Concept drift
Data sets
Inter-disciplinarity

Papadogkonaset al, 2009, IE09

Only at the beginning

- Limited case studies so far
 - In terms of participant profiles, time-frame, and variety of social situations
- Large-scale information capture needed
 - Deployment costs imply commercial operation
 - Data management becomes critical
 - Significant observation accuracy questions
 - Regulatory compliance

The way ahead?

- Beyond instrumentation and connectivity
 - Map-reduce and other Big Data technologies
 - Spatial-Temporal-Sensory-Semantic data models
 - A role for beliefs, motivations and expectations
 - Not directly measurable by technology
 - Sharing can be achieved in alternative ways
 - Facebook vs. 4chan approach
 - People are individuals, not just consumers
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