How can big data and open data advance urban policy and planning practice

The Planning and Transport Research Centre (PATREC) at UWA delivers integrated land use and transport planning research to extend the evidence-base in support of the effective planning and management of Western Australia’s high and rapid growth future.

URBANET (Curtin University) is a network of researchers with interests including city planning, urban design, regional planning, transport planning, sustainability, and governance.

Together PATREC and URBANET will showcase the research which is being conducted by our Research Associates on Big data and Open Data.

Date: 18 November 2015 at 1 pm (details below)

This is a FREE of charge event, but we appreciate your RSVP. Coffee/tea and refreshments will be served after the seminar.

Associate Professor Anssi Joutsiniemi (Tampere University of Technology, Finland)
The cost of information-seeking and changes in datascape in urban planning

This talk seeks to bring an essential issue to the public arena, namely the cost of information, and its consequences for urban planning practice. As big data and open data become increasingly present in urban planning, the cost of information-seeking is likely to become a critical issue.

Undoubtedly information-seeking costs, or more generally the costs of translation, have diminished significantly during past decades, but as long as it remains non-zero it creates a non-uniform datascape and it allows for diverse and often skewed interpretations. The presentation will highlight the gaps in current research and policies on information-seeking, and the demands and tools of a planner and most likely the person who is actually engaged in using data.

In this brief talk I’ll outline how some these recent changes can be observed in the planning practice in present day Finland.

Research Fellow Yuchao Sun (PATREC, The University of Western Australia)
Using cross-sourced GPS data for road performance monitoring

There has been a lack of reliable ways of measuring road network performance. Coverages is one of the latest challenging factors in traditional data collection methods. Road counters, SCATS loop detectors and Fixed VMS are the most commonly used sources in Australia. However, there are sparse point counts that do not necessarily reflect conditions over the distance of the roads. Floating car surveys can provide rich information-based but their application is severely limited by their high costs.

In this talk, Chao will discuss the benefits and challenges in using crowd sourced GPS data (Telematics in particular) for road performance monitoring. It will present issues such as coverage, sample size, statistical methods, as well as potential ways of applying this data.

Dr Thomas Sigler (The University of Queensland, Lecturer in Human Geography)
Using location-based corporate data to understand the global role of Australian cities

Corporations are often seen as new frontiers in urban development. Cities are now fully exposed to the vagaries of the global economy, as trade liberalization, financial innovation, and advanced telecommunication facilitate ever-greater flows of merchandise, capital, and talent across city boundaries. Cities in the global economy is a policy that is internationally oriented, and considers how globalization and geography converge to position them in strategic ways within the global economy.

This lecture focuses on articulating how various data sources can assist researchers in understanding the global position of Australian cities. The primary focus is on the spatial economy of ASX-listed firms in Australia’s five major cities. Supplementary data sets will also be presented to explore how peer-coded corporate data can help researchers in an era of big data.

Professor Chris Pettit (University of NSW, Associate Director, City Futures Research Centre)
On the Completeness of Open City Data for Measuring City Indicators

As an urbanization phenomenon there is an increasing need to benchmark the performance of cities, and this is again a robust set of indicators that can be usefully conceptualized and utilized over time. Open City initiatives are on the increase and the release of OpenData21012014 indicates it is likely to continue to address the synergies between open data and city indicators.

In this presentation I will review the costs and benefits of assessing the completeness of open city data in the context of city monitoring indicators. This measure is known as the City Indicator Data Openness (CIDO) and has been developed and evaluated in the context of two cities of data, Singapore and Melbourne. This research has identified that there exist fundamental barriers in measuring the completeness of open data, and that it is to a large extent dependent on city indicators standardisation. It raises further issue about sourcing data and also provides an added argument towards developing a semantic approach to city indicators.

Venue: Australian Urban Design Research Centre, Level 2, 1002 Hay Street, Perth Date: 18 November 2015, 1pm-4pm

RSVP to patrec-seec@uwa.edu.au

As an architect-planner in the planning department of the City of Helsinki. Before engaging in academic activities, he worked in distributed urban modelling and simulation and algorithmic planning and design and his more recent research interests are studio teaching at the University of Helsinki. His research interests include applied artificial intelligence, transport and traffic modelling, discrete event simulation.

The 21st century, commonly known as an information age, has opened up a new challenges for urban planning practice. The general discussion in current research tends to overoptimistic positive view and has created an illusion of neutral, non-zero flow of information that can only be supported but further.

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He is currently involved in two areas of research: European Urban Design and the How big data and open data advance urban policy and planning practice

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