



Urban  
Big  
Data  
Centre

# SHAPING CITIES THROUGH URBAN ANALYTICS

An Urban Big Data Centre Showcase Event

Wednesday 28th November 2018

IET Glasgow: Teacher Building

[#ubdcshowcase](#)

[www.ubdc.ac.uk](http://www.ubdc.ac.uk)



# SHAPING CITIES THROUGH URBAN ANALYTICS

## An Urban Big Data Centre Showcase Event

28<sup>th</sup> November 2018, Venue: IET Glasgow: Teacher Building

### WELCOME

It is a great pleasure to welcome you all to this event which marks the end of the first phase of UBDC's journey, and the start of the next.

It is clear that the 'data revolution' is here to stay. We are creating ever increasing volumes of data in our daily lives, and these have enormous potential to inform the work of urban planners and policy makers, as well as offering value to many businesses and to citizens. But there are great challenges here as well. It takes a particular combination of skills and expertise – technical, legal and statistical – to generate knowledge from these data. And even then, there are important questions about how reliable the insights from these sources are: what do they capture and what do they miss?

Over the last five years, UBDC has provided a pioneering data service which has enabled a wide range of researchers to make better use of urban big data. We have supported academics but also researchers in a wide range of public bodies, businesses and third sector organisations. We have helped to build research capacity through our training programmes, as well as contributing through our research and knowledge exchange activities. We will showcase a small selection of this work today.

In the next five years, our own research agenda will play a more central role. We will apply our unique combination of social science and data science expertise to the development and analysis of a range of big data addressing challenges in fields including transport, housing, education and urban planning. In all our research, we are very keen to work closely with partners from public, private or third sectors, and you will hear about a number of existing partnerships today. If you think there is scope to work with your organisation, we would be very keen to hear from you.

- Professor Nick Bailey, Director, Urban Big Data Centre

### PROGRAMME AT A GLANCE

09.30:	<b>REGISTRATION</b> - tea/coffee on arrival	
10.00:	<b>Opening Plenary Session:</b>	<i>Laphroaig Lecture Theatre</i>
	10.00:	Welcome from Professor Anne H Anderson OBE <i>Vice-Principal and Head of College of Social Sciences</i>
	10.10:	Ms Kate Forbes MSP, <i>Minister for Public Finance &amp; Digital Economy</i>
	10.20:	Professor Nick Bailey, <i>Director, UBDC: 'Urban Big Data Centre: Achievements &amp; Prospects'</i>
11.00:	<b>BREAK</b> – Tea/coffee and biscuits	
11.20:	<b>Parallel Workshop Sessions:</b> Workshop 1: Transport and Mobility - <i>William Room</i> Workshop 2: Education, Skills and the Labour Market - <i>Berguis Room</i> Workshop 3: Housing and Neighbourhoods - <i>Adam Room</i> Workshop 4: Urban Analytics - <i>Laphroaig Lecture Theatre</i>	
13.00:	<b>LUNCH</b> – Healthy Eating awarded buffet lunch with fruit juice	
14.00:	<b>Plenary Session:</b>	<i>Laphroaig Lecture Theatre</i>
	Chaired by Professor David Banister, <i>University of Oxford and Chair of the Advisory Group, UBDC</i>	
	14.00:	<b>Keynote Speech:</b> Tom Smith, <i>Managing Director, Office for National Statistics Data Science Campus, 'Making an impact: realising the potential of urban data science'</i>
	14.40:	<b>Responses from the panel:</b> Anne Connolly, <i>Glasgow City Council</i> ; Trevor Gibson, <i>Opportunity Peterborough</i> ; George Hazel, <i>MaaS Scotland</i> ; Cecilia Wong, <i>University of Manchester</i>
	15.00:	Discussion
15.25:	<b>Closing remarks</b> – Professor Nick Bailey	
15.30:	<b>CLOSE</b> - tea/coffee available	

# PARALLEL WORKSHOP SESSIONS

WORKSHOP 1: Transport and Mobility	
Chair: Andrew McHugh <span style="float: right;">William Room</span>	
11:20	Capturing urban mobility using crowdsourced data from smartphones <b>Yang Wang</b> (UBDC, University of Glasgow)
11:45	The use of crowdsourced cycling data for cycling analyses (Strava) <b>Jinhyun Hong</b> (UBDC, University of Glasgow)
12:10	Does street lighting improve the safety of cyclists? A case study using Big Data for Newcastle <b>Jim Uttley</b> (Institute for Transport Studies, University of Leeds)
12:35	Inequalities in Public Transport Availability and Associated Transport Poverty Risks <b>Obinna Anejionu</b> (UBDC, University of Glasgow)

WORKSHOP 2: Education, Skills and the Labour Market	
Chair: Michael Osborne <span style="float: right;">Berguis Room</span>	
11:20	Measuring segregation in schools and other places <b>Richard Harris</b> (School of Geographical Sciences, University of Bristol)
11:45	Predicting Uber Demand in New York City with WaveNet <b>Long Chen</b> (UBDC, University of Glasgow)
12:10	Big Data and Digital Program in Smart City Helsinki <b>Ippo Laitinen</b> (City of Helsinki and University of Tampere)
12:35	Place-based drivers of inequalities in secondary school attainment: evidence for Glasgow City Region <b>Phil Mason</b> (UBDC, University of Glasgow)

WORKSHOP 3: Housing and Neighbourhoods	
Chair: Ken Gibb <span style="float: right;">Adam Room</span>	
11:20	Big data for the private rental sector: validating online rental advertising data <b>Mark Livingston</b> (UBDC, University of Glasgow)
11:45	The re-growth of private renting and the suburbanisation of poverty in UK cities <b>Nick Bailey</b> (UBDC, University of Glasgow)
12:10	What determines the spatial patterns of Airbnb rentals (short-term rentals) in Chicago? <b>David McArthur</b> (UBDC, University of Glasgow)
12:35	The enigma of segregation: spatiality, perceptions, persistence, frontiers and networks <b>Gwilym Pryce</b> (Sheffield Methods Institute, University of Sheffield)

WORKSHOP 4: Urban Analytics	
Chair: Annette Hastings <span style="float: right;">Laphroaig Lecture Theatre</span>	
11:20	Can activity spaces say something about social exclusion? <b>Katarzyna Siła-Nowicka</b> (UBDC, University of Glasgow)
11:45	Urban fire dynamics and location optimization of urban fire stations <b>Jing Yao</b> (UBDC, University of Glasgow)
12:10	Children's access to high-quality greenspace <b>Rod Walpole</b> (UBDC, University of Glasgow) and <b>Bruce Whyte</b> (Glasgow Centre for Population Health, University of Glasgow)
12:35	What can you see from your house? A bulk analysis of line of sight, accounting for landscape & building heights <b>Dan O'ner</b> (Sheffield Methods Institute, University of Sheffield)

## Wi-Fi access

Free Wi-Fi access is available via the IET network. Please connect using the login details:

**Username:** iet **Password:** cooper



## #ubdcshowcase

Please use our hashtag when tweeting during the event

## Venue information

Registration and the refreshment breaks will take place in Laphroaig Lounge, located directly opposite the main Laphroaig Lecture Theatre on the first floor. Toilets and the additional breakout rooms for the workshop sessions are on the second floor.

We have tried to accommodate all special dietary requirements for those who stated them on their online registration form. Please ask a member of the catering staff if you require any guidance.

Delegates leave coats, bags and other personal items at their own risk and the University accepts no responsibility for items lost or damaged. Please ask at reception on the ground floor if you need to store larger items.

## Keep in touch

To stay up to date with our research and other activities you can sign up to our newsletter on our website and follow us on social media:

[www.ubdc.ac.uk](http://www.ubdc.ac.uk)

Twitter: [@UrbanBigData](https://twitter.com/UrbanBigData)

LinkedIn: [Urban Big Data Centre](https://www.linkedin.com/company/urban-big-data-centre)

Facebook: [/urbanbigdata](https://www.facebook.com/urbanbigdata)

# SPEAKERS AND PANELLISTS



**Kate Forbes**

Scottish Government

Kate Forbes MSP is Minister for Public Finance and the Digital Economy in the Scottish Government. Her responsibilities include digital economy and digital public services. She represents the Skye, Lochaber and Badenoch constituency, and studied history at the Universities of Cambridge and Edinburgh, with a focus on human migration. She has served on the Scottish Parliament's Environment, Climate Change and Land Reform Committee, and the Health and Sport Committee, among others. A fluent Gaelic speaker, Kate made history earlier this year by becoming the first female MSP to give a plenary speech entirely in Gaelic in the current Scottish Parliament chamber.



**Nick Bailey**

UBDC, University of Glasgow

Nick Bailey is Professor of Urban Studies at the University of Glasgow. His research interests are in housing and urban policy, and in the changing nature of poverty, deprivation and social exclusion. He is a quantitative social researcher who has worked with diverse kinds of data, both conventional surveys and Census data, and more novel urban big data. He has advised national and local government on the measurement and analysis of urban poverty and social exclusion. He took over as Director of UBDC in 2018, having been an Associate Director from its launch in 2014. He is also Associate Director of the Administrative Data Research Centre for Scotland.



**Tom Smith**

Data Science Campus, ONS

Tom Smith is Managing Director at the Office for National Statistics' (ONS) Data Science Campus, joining in 2017. He has more than 20 years' experience using data and analysis to improve public services. Working at the intersection of government, academia and industry, he has led data & research projects with hundreds of local and national public and community sector organisations. He is vice-chair of the Royal Statistical Society Official Statistics section and a member of the Open Data ministerial advisory group to the Cabinet Office.

Tom's primary research interests are in using data science to improve public services, machine learning, and assessing non-traditional data sources to improve our understanding of society and the economy.



**David Banister**

University of Oxford

David Banister is Emeritus Professor of Transport Studies at the School of Geography and the Environment (SoGE) and the Transport Studies Unit. He is a Fellow of St Anne's College. He was Director of the Transport Studies Unit from 2006 until 2015, and during 2009-2010 he was also Acting Director of the Environmental Change Institute in SoGE. Until 2006, he was Professor of Transport Planning at University College London. He has been Research Fellow at the Warren Centre in the University of Sydney (2001-2002) on the Sustainable Transport for a Sustainable City project and was Visiting VSB Professor at the Tinbergen Institute in Amsterdam (1994-1997). He was a visiting Professor at the University of Bodenkultur in Vienna in 2007. He was the first Benelux BIVET-GIBET Transport Chair (2012-2013).



**Anne Connolly**

Glasgow City Council

Anne is Strategic Adviser to the Chief Executive and responsible for strategic policy and planning and organisational development, including the delivery of the council's priorities, citizen engagement, equalities, business planning and performance. As a member of the corporate management team she supports the development and use of data to inform the council's strategic decisions, innovation and service reform. Currently, she is coordinating a review of the data held at electoral ward level to gauge how the council has developed its use of data since 2015, its understanding of local challenges and opportunities and how it can further inform its approach to inclusive growth.



**Trevor Gibson**

Opportunity Peterborough

Trevor is currently Smart City Leadership and Development Manager with Opportunity Peterborough and was part of the Peterborough team which successfully bid to be one of the UK's four Future City Demonstrators funded by the Technology Strategy Board (now Innovate UK). He continues to help develop and deliver the resultant "Future Peterborough" programme and chairs the British Standards Institute (BSI) Smart and Sustainable Cities and Communities Committee (SDS/2). Prior to his smart city experience, Trevor spent almost thirty years in the public sector, most recently as Director of Environment and Community Services at Peterborough City Council, where he was responsible for the strategic management of a wide range of front-line services



**George Hazel**

MaaS Scotland

George has extensive expertise in all aspects of transport and communications, both urban and rural, with specific experience in strategic planning and policy development advisory roles in many Government agencies and transport authorities around the world.

He worked for Scottish Enterprise as their Smart Mobility Network Integrator for 3 years, and then as Programme Manager developing MaaS Scotland for a further year. He is now advising Cubic Transportation Systems on connected and autonomous vehicles and Mobility as a Service. He has published a book on Making Cities Work and has presented at a large number of international conferences.



**Cecilia Wong**

Manchester Urban Institute, University of Manchester

Cecilia is Professor of Spatial Planning, Fellow of the UK Academy of Social Sciences and Fellow of the Royal Town Planning Institute. She has research expertise on strategic spatial planning, policy monitoring and analysis, urban and regional development, and housing and infrastructure planning. She is a commissioner of the UK 2070 Commission on Regional Inequalities and was a commissioner of the Labour Party's Lyons Independent Housing Review, a member of Department for Communities and Local Government's expert panel on housing and planning, an expert panel member of the European Commission's Urban Audit II and an expert group member of the UN-Habitat City Prosperity Index.