

UCL TRANSPORT
INSTITUTE

UCL



Report on activities and achievements

October 2014 to December 2015

Introduction

The UCL Transport Institute was established in 2013 with three principal goals:

- To foster cross-disciplinary transport research
- To increase the policy impact of transport research
- To build UCL's profile in relation to transport

We reported on our first year in 2014. This second report provides a brief summary of the work done in the subsequent year, some of our achievements, and what's in the pipeline. It begins with a survey of progress on our theme-based approach to activity before addressing each of the three above goals in turn.





Research themes

The Transport Institute’s work in its first two years has been built around a theme-based approach to research (see Figure 1). The idea is that each theme has a leader (a UCL academic conducting relevant research) who will guide activity under that theme. At the heart of the theme-based approach lies our central concerns of equity and quality of life; also, as shown in the figure, the links between the research and policy and practice are a constant consideration.

Five theme leaders are currently “in post” (see below), each of whom has developed her/his own way of working. We are supporting them with seed-corn budgets for projects which will lead to significant grant applications and publications. A sixth theme leader has just been appointed: **Dr Matthew Beaumont** (UCL English) has taken on the theme of transport and culture and will bring to it his appreciation of transport in literature.

For each theme, we list the main activities during the last year.

Figure 1:
UCL Transport Institute’s
research and policy priorities



Environment

Led by **Professor Stephen Marshall**, UCL Bartlett School of Planning

We reported last year on the project Walk-in Cities, led by Stephen and Gustav Milne of **UCL Institute for Archaeology**. This resulted in a literature review and an article in *Town and Country Planning* (*see below*). This has now led to a proposal for a major project for which funds are being sought from EPSRC. Spanning the range of modes “between” walking and cycling, the project would bring in colleagues from **UCL Civil, Environmental and Geomatic Engineering** and **UCL Computer Science** and is also likely to involve a partnership with **Sustrans**.

Safety & security

Led by **Dr Aiden Sidebottom**, UCL Security and Crime Science

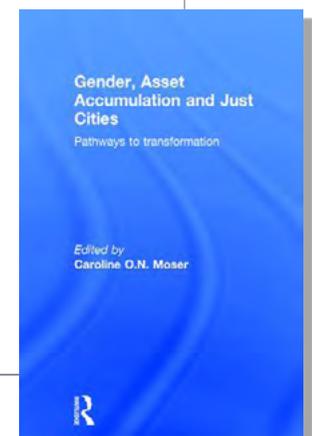
A small-grants scheme was recently launched, inviting members of the UCL community to put forward ideas for initial research projects relating to transport and safety or security. It is intended that work carried out with this funding will, as with Walk-in Cities, lead to more extensive projects as well as publications. Meanwhile, the UCL research network, Crime & Transport, has continued to meet periodically to work on projects of mutual interest, with the expectation of widening membership following the recruitment by Transport for London of its co-ordinator, Réka Solymosi. In May, the network collaborated with the Transport Statistics User Group (TSUG) on a seminar hosted by Transport for London, entitled **Reducing crime on the transport network – the role of data**. The seminar included speakers from UCL, University of Huddersfield and Transport for London itself.

Equity

Led by **Caren Levy**, UCL Bartlett Development Planning Unit

There have been three significant developments under this heading:

- A new MSc module is being launched by Caren and colleagues - Transport Equity and Urban Mobility is being offered as part of several programmes at the Bartlett Faculty of the Built Environment
- Caren has been leading work being carried out by UCL Development Planning Unit on **transport and well-being**, with an emphasis on Nigeria (*see Events, below*)
- And Caren has a chapter on transport planning in the recently published book *Gender, Asset Accumulation and Just Cities* (*see References, below*)



Accessibility

Led by **Dr Catherine Holloway**,
UCL Civil, Environmental and
Geomatic Engineering

There is an African flavour to activity under this theme. Catherine is the Health and Well-Being lead for **African Voices**, a series of events that will mark the launch of UCL's African Studies Research Centre in early 2016. She has arranged for Dr Ibidun Adelekan of Lagos, Nigeria to visit, deliver a lecture on transport and well-being, and take part in a panel discussion.



African Voices will also showcase exciting work done in **Mozambique** by Dr Clemence Cavoli and by Dr Maria Kett in **Zimbabwe**. In connection with the latter, Maria and her colleague Marcella Deluca have submitted a paper entitled "Transport and access to education in Mashonaland West Province, Zimbabwe" to the journal Social Inclusion.

Health

Led by **Dr Jenny Mindell**,
UCL Epidemiology
& Public Health

In June 2015, Jenny co-organised the inaugural International Conference on Transport and Health which took place at UCL. UCLTI was involved in the planning process and in the event itself.

And, in September, Jenny and Tom Cohen organised a half-day seminar aimed at practitioners in the field of travel behaviour change. Drawing speakers from University of the West of England, University of Bath, London School of Hygiene and Tropical Medicine and UCL itself, this well-attended event was much appreciated by the mixture of local authority officers, consultants and third-sector representatives who attended.

A blurred photograph of a city street scene, overlaid with a blue tint. In the center, a red double-decker bus is moving from left to right. To its right, a person is riding a bicycle, also blurred to indicate motion. The background shows buildings and other vehicles, all rendered with a sense of rapid movement. The overall image conveys a busy, dynamic urban environment.

Cross-disciplinary research
relating to transport

UCLTI projects

Redevelopment of Old Oak & Park Royal

We became involved in this project through [UCL Engineering Exchange](#). What was initially a discussion about the massive impact of HS2 and



The
Engineering
Exchange

Crossrail on this area has become a broader discussion concerning the positive involvement of local people in the planning process. December saw a community charrette, held in partnership with colleagues from UCL STEaPP and UCL Bartlett School of Planning.

Policy commission on transport and ethics

A project taking place in partnership with UCL Public Policy. A team led by Dr Dean Machin (UCL Philosophy) and Dr Tom Cohen (Deputy Director of the Transport Institute) is investigating how an increased role for ethics in decision making could influence transport policy and the transport system.

“Walk-in Cities”

Conducted under the Environment theme, this project was led jointly by Professor Stephen Marshall (UCL Bartlett School of Planning) and Gustav Milne (UCL Institute of Archaeology) and brought in partners from UCL and elsewhere. It asked what constitutes the optimal balance of measures to promote walking as part of the commuting journey in urban settings. In addition to producing a literature review, the project led to an article in *Town and Country Planning* (Marshall et al. 2015). A major grant application is now being prepared, drawing on the project’s findings.

Citizens helping to define the transport research agenda

Funded by the UCL Public Engagement Unit’s Pathways grants (as part of the EPSRC Impact Acceleration Account), this project was designed to ask citizens what priorities should be for transport research. Tom Cohen managed the project with Dr Sarah Bell (UCL Civil, Environmental and Geomatic Engineering, UCL Engineering Exchange) and we were advised by Dr Jack Stilgoe (UCL Science and Technology Studies). A citizens’ jury took place in February with expert witnesses from industry and the third sector. There was then an on-line survey which invited respondents to rate the importance of a range of candidate research projects. The findings are now being shared with major funders of transport research.

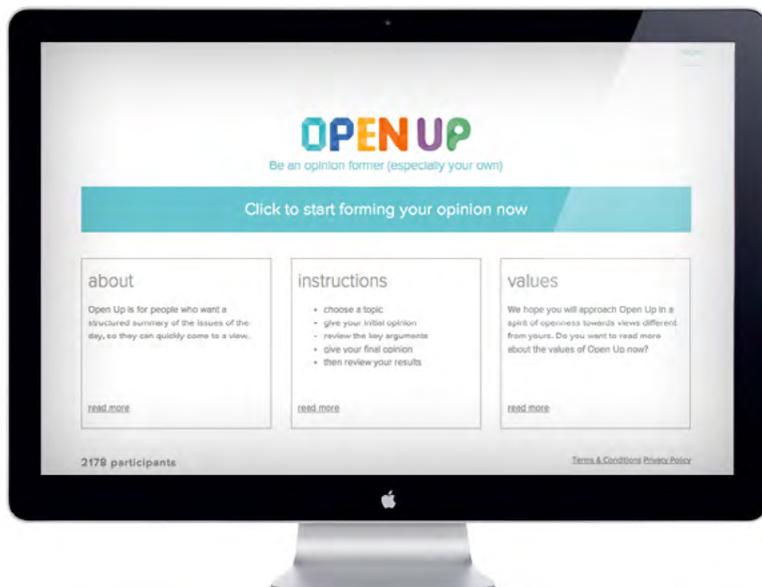
Crowd Wise – testing a new approach to participatory transport planning

Again funded by UCL Public Engagement Unit’s Pathways grants, this project was designed to test an approach to deliberation, based on discussion and preference voting, in Camden and Leeds. In collaboration with council officers and colleagues at University of Leeds Institute of Transport Studies, we ran two public events. Both events generated ideas which council officers found helpful. The project resulted in papers at the Transport Practitioners’ Meeting in July and the Conference of the Royal Geographical Society in September.

Open Up on airport expansion

Open Up is an on-line deliberation tool developed by Perry Walker. A topic on airport expansion was developed by Tom Cohen, working with Nicole Badstuber (UCL Civil, Environmental and Geomatic Engineering and UCL STEaPP) and Dr Antony Evans (then of UCL Energy Institute). Respondents were asked to rate five airport expansion options before being presented with various arguments favouring one or other; they then rated the options a second time. This resulted in a paper given at the Transport Practitioners' Meeting in July and the findings are also due to be shared with relevant officials at the Department for Transport.

Figure 9: Open Up website



Collaboration

In addition to projects led by UCLTI, we are working actively with several partners:

- We collaborated with the **Museum of Walking** on its pilot of a project called Light and Dark, where teams conduct a walking assessment of an area both before and after dusk and compare their experiences of the two. There is the prospect of further collaborations, including a likely Light and Dark in Spitalfields, east London.
- Following the success of our seminar on travel behaviour change, we are developing plans with consultant **Steer Davies Gleave** to construct a more research-orientated event at which we would attempt to achieve equal numbers of public-health and transport participants, with a view to defining collaborative projects which would receive a small grant to get them going.
- We are working with the cycle safety projects officer at the **London Borough of Camden** on two initiatives, one (and possibly both) involving UCL Institute of Making. The first will involve MSc students in the development of interventions that make cyclists safer amongst motorised traffic; the second is intended to prompt cyclists to maintain a suitable pace when sharing space with walkers.

Policy impact



Department for Transport (DfT)

There has been ongoing collaboration with DfT officials at several levels:

- UCL hosted a **staff away-day for the Analysis and Strategy Directorate**, before which we held a “meet and greet” session attended by transport researchers from across UCL. After the away-day, we arranged for the head of the Directorate, Amanda Rowlatt, and Head of Behavioural and Social Research, Deirdre O’Reilly (also a UCL visiting professor), to meet a sequence of selected UCL staff and associates – David Metz (visiting professor); Dr Caroline Wood and Dr Rachel Carey of UCL Centre for Behaviour Change; and Professor Alan Penn, Dean of UCL Bartlett Faculty of the Built Environment.
- Having won the competitive tender for delivering an **introductory course in transport modelling** to officials, and run the first such course in September 2014, we were invited to deliver a second run in February. As with the first run, this was very well received by participants. We are now expecting to deliver a third run for the Department for Transport as well as a separate run for staff of HS2.
- On the day when UCL Bartlett School of Planning was running an event on rethinking transport appraisal, we arranged for one of the speakers, **Professor Bert van Wee of TU Delft, to visit the Department’s offices** in Westminster and meet a group of staff interested in his research.
- UCL continues to do a lively business in placing its students and staff on **secondment** at the Department. At present, Dr Clemence Cavoli is working with the Science Team and doctoral student Pola Berent is with the Sustainable Transport team.

Transport Select Committee

Relations continue to be strong with the staff of the Transport Select Committee, with the clerk, Gordon Clarke, participating in a panel discussion at our event on transforming transport research (see below). The Transport Institute assisted Dr Jean-Paul Addie (now UCL Geography) and Professor Harry Dimitriou (UCL Bartlett School of Planning) in preparing written evidence for committee inquiries on smaller airports and strategic river crossings, respectively. In the latter case, this followed a liaison meeting at which UCL academics advised Committee staff on the inquiry’s terms of reference.

“There was a real buzz in the room during the networking...the meetings Amanda and Deirdre had... were very interesting”

DfT official, following away-day

London Assembly Transport Committee

- As a result of liaison between UCLTI staff and the scrutiny manager for transport, Professor Stephen Marshall was invited to appear as a “guest” at a committee meeting where the Mayor’s **London Infrastructure Plan 2050** was examined. Stephen fielded questions concerning a radical change of London’s infrastructure to promote walking.

“This is very helpful and I’m sure the Committee will want to reflect many of these issues in its formal response to the draft Infrastructure Plan.”

GLA Transport Scrutiny Manager thanking Stephen Marshall for his contribution

Transport for London (TfL)

As with the Department for Transport, various initiatives involving this key transport stakeholder have been initiated:

- Following a competitive tendering process, we have been appointed by Lucy Saunders (a public health specialist working jointly at TfL and the Greater London Authority) to **prepare training materials** on evidence into practice, intended to foster a more evidence-based culture amongst senior colleagues.
- We collaborated with the Consultation Institute on a piece of work for head of TfL’s consultation, Peter Bradley, testing the idea of **benchmarking consultation practice** across cities including London
- We have continued our dialogue with various staff working on **behaviour change**, with three UCL researchers taking part in a day-long forum meeting organised by TfL’s Dr Susan Kenyon.
- UCLTI staff have also been working to develop a **secondment** arrangement with TfL, and to provide MSc students with **special projects** of policy relevance to TfL, through liaison with the head of strategic analysis and others.
- UCL has appointed **Ben Plowden**, Director of Surface Strategy and Planning, as a visiting professor. This will strengthen an already good working relationship, and promote collaboration and knowledge exchange.
- TfL is also on the list of research funders to hear about the findings of the project **citizens helping to define the transport research agenda** (*see projects, above*).
- And TfL staff have given their time very generously as speakers at our seminar series, **Cycling@Lunchtime**.

Major funders

The project **citizens helping to define the transport research agenda** (see *UCLTI projects, above*) involved contacts with several major funders of research - EPSRC, ESRC and RAEng, in addition to those mentioned above. A “road trip” is now taking place to share our findings.

Local authorities

Camden

Relations with our home borough remain very strong.



We are collaborating on two bids for **TfL's Future Streets Transport Incubator** fund. We have also reached an in-principle agreement to assist Camden in its work on **cycling and safety** through UCL Institute of Making's Professor Mark Miodownik, who will run a design exercise with visiting MSc students in 2016.

Leeds

As mentioned above, our Crowd Wise event in Leeds went down well with officers.

International

UCLTI is developing a training course for staff of **Abu Dhabi's** Department of Transport visiting the UK in 2016. We have also been short-listed as part of a consortium led by Arup to set up the **Dubai Transportation Academy**. And UCLTI's director, Dr Nicola Christie, has visited **Japan** to lecture on the topic of road safety.

“I have had a lot of positive comments about the Crowd Wise event, from the Disability Hub rep in particular.”

Leeds City Council officer

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www.ucl.ac.uk/transport-institute



UCL's profile in
relation to transport

Training and teaching

In addition to routine lecturing delivered by UCLTI staff, the following activities have taken place or are being planned:

- In collaboration with Landor (publishers of Local Transport Today), it is planned to deliver a day-long course part-funded by the Department for Transport and aimed at local authority transport officers. The theme is **transport for an ageing population** and the day will combine lectures with a visit to UCL's **PAMELA** lab.
- As mentioned under Policy Impact, we have continued to deliver our two-day **introduction to transport modelling** to Department for Transport officials and plan now to extend this to staff of HS2.
- We are in the process of planning a two-day training workshop with PTRC on the topic of **participation in transport planning**, with a target audience of transport professionals in government and consultancy.
- We are planning a **transport behaviour change** module as part of the forthcoming MSc in Behaviour Change being developed by our colleagues at UCL's Centre for Behaviour Change.
- And Tom Cohen taught on UCL STEaPP's two-week course, **How to Change the World**, which was delivered in summer 2015 to second-year undergraduates from across the Engineering faculty.

Presentations/papers

A brief summary of presentations/papers and associated activity during the year:

- Presentation and panel-chairing on smart city transport at the British Embassy in Warsaw
- Presentation, participation in panel at the Transport Practitioners' Meeting; UCLTI is now on the committee for TPM 2016
- Presenting at Oxford Science alongside cycling journalist Max Glaskin on the topic of cycling and safety
- Chairing a session at 2015's ACT Travelwise conference and giving a paper at the 2016 event
- Chairing the inaugural Haringey Cycling Conference in 2015
- At the invitation of Dr Rachel Aldred (University of Westminster), chairing a meeting of the London Cycling Campaign's policy forum on current cycling research
- Presenting at the conference of the Royal Geographical Society/ Institute of British Geographers on the Crowd Wise project (*see above*)

Events The following significant events were organised, jointly organised or supported by UCLTI

1 As the culmination of a series of themed events at which transport researchers shared their findings with policy makers, we held a half-day workshop, **Transforming Transport Research into Policy and Practice**. This concluded with a panel discussion including Louise Ellman MP (chair of the Transport Select Committee) and Dr Rod Smith (former Chief Scientific Adviser at the Department for Transport). A note summarising the key messages has been produced and there are also eight **briefing papers** relating to themed events.

2 In association with Dialogue by Design, we held the event **We Need to Talk about Infrastructure**, including presentations from Dr Jack Stilgoe (UCL Science & Technology Studies) and Professor Brian Collins (UCL STEaPP). The theme of the event was the meaningful involvement of stakeholders in the planning of infrastructure and the event was, appropriately, participatory in nature. We subsequently produced a set of short essays inspired by the discussions at the event. Called **Infrastructure and the Citizen**, the set was serialised by LSE's Institute of Public Affairs.

3 We assisted our colleagues in UCL Development Planning Unit in planning a workshop on **transport, well-being and development**, part of the project Transport, Poverty and Wellbeing in Urban Nigeria involving our Equity theme leader Caren Levy.

4 We jointly organised two meetings of the Transport Statistics User Group, one on **reducing crime on the transport network** (see the description above under the *Safety & Security* theme) and another on **road safety**, at which Nicola Christie presented.

5 As described under the health theme above, we held a successful half-day session aimed at bringing the latest research on **travel behaviour change** to a practitioner audience.

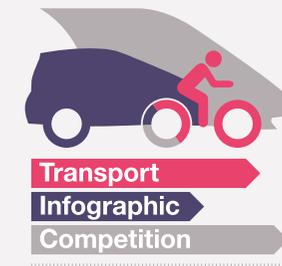
6 We are planning to hold a symposium on the theme of **"radical" transport** in the 2016.

7 The monthly seminar series **Cycling@Lunchtime** has held its fifteenth meeting. This collaboration between UCLTI and TPS, CILT UK, CIHT, ICE and IHE enables researchers and practitioners in the cycling policy world to debate developments and policy issues. Those unable to attend in person are able to watch **videos** of the presentations.

8 UCLTI staff were extensively involved in the first **International Conference on Transport and Health**, which took place at UCL. Nicola Christie gave two papers and co-chaired a "hot topic workshop". Tom Cohen helped with the planning, was a poster judge and moderated a hot topic workshop.

9 **UCLTI staff have also contributed to numerous events organised within UCL and externally.**

10 We also plan in 2016 to hold a competition seeking outstanding examples of transport infographics.



Building links

Our work depends upon having a thriving network so we devote much of our time to building new links. The following are just a few examples of organisations with which we have initiated contact in the past year.

- Behavioural Insights Team (formerly part of the Cabinet Office)
- Carplus
- Doppelmayr
- EIT Digital
- European Automobile Manufacturers' Association – ACEA
- HCT (Hackney Community Transport)
- Jaguar Land Rover
- Living Streets
- Microsoft
- Modeshift
- Parose Projects
- Think Up

Communications

In addition to a growing presence on Twitter, we are in the process of enhancing our website so that it can enable the user efficiently to identify UCL researchers with particular skills or specialisms.

Coffee: the new petrol?



Dr Paul Hellier (UCL Mechanical Engineering) is an expert in testing new fuels to assess how sustainably they can be produced, how they function as an energy source, and whether pollutants produced by their combustion lie within acceptable limits. At a meeting held by UCLTI, Paul met Joanna Marshall-Cook of UCL Environmental Sustainability team, who put him in touch with the two UCL graduates who have founded **bio-bean**, a company specialising in developing sustainable solid and liquid fuels from waste coffee grounds.

They jointly applied for a UCL Impact Award PhD studentship to work on developing energy-efficient methods of extracting coffee oils and using them as sustainable biofuels for internal combustion engines. This studentship commenced in October 2014, and Paul is now also working with bio-bean through a project funded by Innovate UK looking at what other chemical compounds are present in the waste coffee grounds and whether these have potential as high-value bio-chemicals.

References and links

- Crowd Wise – [slides](#) from annual conference of Royal Geographical Society (with IBG)
- Open Up – [paper](#) from Transport Practitioners Meeting
- Transforming Transport Research – [final briefing and theme-specific notes](#) from the series of seminars run with policy makers
- [Infrastructure and the Citizen](#), set of essays produced following our event We Need to Talk about Infrastructure
- Levy, C., 2015. Routes to the just city: towards gender equality in transport planning. In C. O. N. Moser, ed. Gender, Asset Accumulation and Just Cities: Pathways to transformation. London: Routledge, pp. 135–149.
- Marshall, S. et al., 2015. Walking – a step change towards healthy cities. Town and Country Planning, March 2015, pp.125–129.

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