AHRC International Research Network
Whose Right to the Smart City?
March 2016 – March 2018

www.whosesmartcity.net
@whosesmartcity

AHRC Network: Whose Right to the Smart City
The AHRC international network critically addresses the smart city agenda, and investigates the role of Information and Communication Technologies (ICTs) in marginalised communities at a range of global contexts. It addresses a gap in current knowledge exchange and seeks to redress the balance of focus from the existing highly urbanised, first-world contexts to concentrate on more marginalised urban communities and people-centred urban change in relation to ICTs. The international network involves academics working at the boundary between the disciplines of architecture, urban planning, urban studies and ubiquitous computing who are involved in projects that investigate the potentials and challenges of ICTs in urban settings. It draws on different global perspectives in a timely and innovative approach to network together a key set of academics.

Background
Smart Citizenship Workshop, June 2016
Chennai, India
https://whosesmartcity.net/workshop-1-india/

The network had its first meeting in June 2016 in Chennai, India, with the theme "smart city vs. smart citzenship". Chennai is one of the cities in India in the list to become "smart" (Smart City Mission (http://smartcities.gov.in/), which involves 100 cities in India in a kind of "contest" to meet deadlines and submit proposals in order to receive funding. Thus, old projects (devised without public participation) from a previous national urban regeneration project- Jawaharlal Nehru National Urban Renewal Mission (JNNURM) are being "reactivated" and technologies that are totally inadequate to the culture are being included to meet the deadlines so the city can become "smart." It is worth mentioning that the main "smart" project for this city was proposed by a sensor company for urban rubbish bins to send a message to the mayor when they are full (upon receipt, the Mayor's email would send an automatic email to the superintendent of urban cleaning). In addition to the unnecessary hierarchical bureaucracy through the government, the proposal totally ignores the fact that the bins are never filled, but the surroundings of the bins are always full of trash and debris (which the sensors will not catch). The proposals generally do not prioritise the socio-cultural reality of the cities, focusing on stimulating investment in capitals (and not in people). Indian citizens are

open to the idea of the city becoming "smart" (mainly because of advertising, as all the newspapers talk about it without actually informing), but have no idea of what it is in practice. As such, smart city comes more as a vehicle to invest resources in capital rather than to invest in the improvement of the quality of life, and thus, expanding the right to the city.

Autonomy in the Smart City Workshop, December 2016
Belo Horizonte, Brazil
https://whosesmartcity.net/brazil-workshop/

The network had its second meeting in December 2016 in Belo Horizonte, Brazil
The second workshop of the network, called 'Autonomy in the Smart city workshop', happened in Belo Horizonte, Brazil, on December 01-03 2016. Departing from the assumption that the smart city precepts is a setback from the point of view of citizen engagement in decision making processes, the worshop aimed to advance the discussions of both technologies and urban planning in order to broaden the autonomy of citizens.

CITIZENS ENGAGEMENT IN THE SMART CITY

Context: Smart City London
London's population is set to grow from over **10 million in 2036** forming new pressures on the city and creating new challenges of dealing with, for instance, increasing waste and meeting extra pressure on healthcare, transport, energy supply and the management of energy, utilities, waste and pollution. In response, London intends to demonstrate how data and digital technology solutions can support a city's growth[1].

The Smart London Plan[2], [3]
In March 2013 the Mayor of London formed the **Smart London Board**[4], which comprised of a group of experts, including academics, business leaders and entrepreneurs. The aim is to shape and implement London's strategy to ensure digital technology makes London a better experience for everyone. Putting Londoners and London's businesses at the heart of this process, the board advises the Mayor and the London Enterprise Panel[5], on how London can best use technology and data to enable more integrated solutions to address London's challenges.

---

[1] developers both inside and outside government can use the data to make new software and platforms.
[2] https://www.london.gov.uk/sites/default/files/smart_london_plan.pdf
[3] https://www.london.gov.uk/sites/default/files/gla_smartlondon_report_web_4.pdf
[4] https://www.london.gov.uk/what-we-do/business-and-economy/science-and-technology/smart-london/smart-london-board
[5] https://lep.london/article/welcome-leap-and-its-newly-appointed-board
and https://lep.london

The Mayor's Smart London Plan was published in December 2013 outlining how to use the creative power of data and technology[6] to serve London and improve Londoners' lives. It builds on existing efforts where London[7] is already recognised as a leader in digital innovation, and a pioneer in open data trough, for instance, The **London Datastore** [8] that was one of the first platforms to make public data open and accessible and London's dashboard [9] that visualises the 'pulse' of the capital. Innovations in **transport** include using number plate recognition for the congestion charge, Wi-Fi on the Tube and the intelligent road network management, using contactless Oyster, credit and debit cards (**digital money**) and using new technologies to **reuse waste heat** (from underground shafts and sub-stations) and final, the first **London Infrastructure Map (IMA LDN)[10]** that combines planned and estimated development activity with infrastructure providers' investment decisions.

Along with the Smart London Plan, the Mayor has the Digital Inclusion Strategy[11], with the Infrastructure Plan[12] that set out how to bring together the digital community to ensure that London has the infrastructure in place to stay ahead while enabling businesses and residents to take full advantage of its benefits. This will need new forms of collaboration between Londoners, government, businesses and academia.

The future of Smart London
Smart London is delivered through three overarching work streams that aims to **engage Londoners** (through using smart technology) to enhance the range of engaging and empowering Londoners and businesses; **enabling good growth** through harnessing data and digital technology to meet the growth challenges facing London's infrastructure, environment, and transport systems and all framed through **working with businesses** – leveraging opportunities for innovation and business growth.
Case studies include among others the Queen Elizabeth Olympic Park, London, and London Living labs[13] (see https://www.london.gov.uk/what-we-do/business-and-economy/science-and-technology/smart-london/smart-london-case-studies)

Engaging with citizens
The most challenging gap in the delivery of the Smart London Plan is citizen engagement[14]. The plan aims to tackle digital skills gaps, increase Londoners' digital

---

[7] UK Smart Cities Index 2016 http://digitalbirmingham.co.uk/publication/2679/
[8] https://data.london.gov.uk
[9] The Centre for Advanced Spatial Analysis at University College London: http://citydashboard.org/london/
  also see http://vis.oobrien.com/panopticon/
[10] https://maps.london.gov.uk/ima/
and https://www.london.gov.uk/what-we-do/business-and-economy/better-infrastructure/london-infrastructure-map
[11] https://www.london.gov.uk/sites/default/files/a_digital_inclusion_strategy_for_london.pdf
[12]https://www.london.gov.uk/what-we-do/business-and-economy/science-and-technology/smart-london/londons-technology-plan
[13] Smart London innovation Network: http://smarterlondon.co.uk and Sustainable Connected Cities: http://2012.cities.io
[14] https://www.london.gov.uk/talk-london/

engagement through hosting hackathons such as **Climathon** to involve Londoners in solving the city's growth challenges, invest in free public Wifi installations in over **80 public buildings**, and pilot a co-design programme **Tech Londoners** to enable people to help shape future tech solutions and invest in Londoners' digital skills - from securing £5m to deliver a **Digital Skills Programme** called 'Digital Talent' to creating **'Speed Volunteering',** an online marketplace for flexible volunteering and working.

The current approaches, however, mostly address citizens as recipients or consumers, rather than as participants, co-creators, or as owners. These are imbedded in a neoliberal conception of citizenship that prioritises consumption choice and individual autonomy within a framework that prioritise market-led solutions to urban issues, rather than being based in civil, social rights.

In this sense, the question raised by Arnstein[15] (Arnstein, 1969) is highly applicable –

How can citizens participate in smart city?

Workshop 3: Community Engagement in the Smart City

Dates: 6th – 7th Sept 2017
Organiser: The Bartlett School of Architectue (Ava Fatah gen Schieck), UCL, London
Venue(s): The Bartlett School of Architecture (room 6.02), UCL London

Workshop objectives:
The third event will focus on the city itself, and *how citizens within urban space engage* with technologies embedded within them. This involves the understanding of how people might contribute to the design of a future urban space that reflects this changing engagement with a 'smart' city. The event will involve a number of invited participants (academics, community groups, and key stakeholders involved in local public sector or third sector initiatives) in addition to the PI, CI and members of the steering committee. The event objective will be to develop a shared understanding of challenges of engaging with digital city-making and identify different types of ICT initiatives might be appropriate for marginalised communities in the UK, and particularly the London context.

Outcomes
- Identify different features that empower (marginalised) communities to achieve participation and engagement in the context of the Smart City in London/UK.
- Understanding of the context of smart city in London: what are the constraints and limits of smart project in London/UK?
- Publication of the Seminar presentations at the network website

---

[15] **A Ladder of Citizen Participation**," Journal of the American Planning Association, Vol. 35, No. 4, July 1969, pp. 216-224

Agenda
Day 1: Seminar with external participants
Day 2: Mapping workshop (East London sites)

Programme (tentative)

<u>**Day One**</u>
Wednesday 6/9/17
Venue: Room 6.02 The Bartlett School of Architecture, UCL Faculty of the Built Environment
22 Gordon Street, London, WC1H 0QB, United Kingdom

9.30-10.00 Arrival and coffee

Introductions
10.00-10.15 - Welcome: Prof. Alan Penn, Dean of The Bartlett Faculty for the Built Environment, UCL
10.15-10.20 - Overview of the day – Ava Fatah, The Bartlett, UCL
10.20-10.30 - AHRC Network Overview: Dr. Katharine Willis, University of Plymouth (Network PI)

Morning Session
Topic: Understanding participation and engagement with (marginalized) communities in the Smart City
10.30-11.45 - 10 minute overviews of selected current smart city projects and engagement of citizens and marginalised groups (UCL/Intel, University of Westminster)

- Muki Haklay | Clare Melhuish | Gillian Rose | Saffron Woodcraft | Sarah Gallacher | Darshana Chauhan

11.45-12.30 – Discussion
12.30-14.00 lunch

Afternoon Session 1
14.00-14.20: Smart City London and Citizens Engagement: Dr Steve lorimer

Topic: Participation and engagement in the (Smart) City
14.20-15.20 - 10 minute overview of community based initiatives that address participation and engagement in the city

- LUOS (Leyla Laksari)| Just Space (Richard Lee)| Take Back the City (Rachael Okiya| Ban Private Cars in London (Victoria Readhead)

15.20-15.45 – Coffee break

Afternoon Session 2
Topic: Participation in the Smart City: ICT projects and citizens-led platforms.
15.45-16.45 - 10 minute overview of community based and citizens-led ICT platforms that address participation and engagement in the city

- justMap (Niclos Fonty) | D4SC (Priya Prakash) | NESTA (Tom Saunders)| Spacehive (Toby Bennett)

16.45-17.15 - Panel discussion of projects and drawing together the outcomes
17.15-17.30 - Summing up and next steps session

18.00 - Finish

19.00 - Dinner- venue TBC (not funded)

Day Two (7/9/17)
Mapping exercise (network partners only)

Relationship between everyday access to data and policy level
- Queen Elizabeth Olympic Park (East London - digital demonstration opportunities)
- Here East (East London - iCity: ICT tech hub)
-Tottenham Hale: Living under one sun LUOS (community)
- others (London transport innovation: eg Bike sharing, Oyster Card etc)

Participants
Network Partners:
Katharine Willis (PI), Plymouth University https://www.plymouth.ac.uk/staff/katharine-willis
Ava Fatah (CoI), UCL https://iris.ucl.ac.uk/iris/browse/profile?upi=AJFAT72
Ana Baltazar, Universidade Federal de Minas Gerais
Satyarupa Shekhar, CAG, India https://www.cag.org.in/team - (remote participation)

Key Participants/Guests (not full list)

Invited Higher Education HE speakers/participants (alphabetical order)
- Prof Lindsay Bremner, University of Westminster.
- Dr. Sarah Gallacher ICRI (Intel Cities Institute, UCL), Citizen Engagement Sense making with citizens, UCL (speaker)
- Christina Leigh Geros, designer, researcher, and educator currently in Jakarta.
- Prof. Muki Hacklay, Extreme Citizen Science: ExCiteS, UCL (Beyond quantification: a role for citizen science and community science in a smart city) - (speaker)
- Dr. Clare Melhuish, UCL Urban Lab, University-led urban regeneration: Making sense of digital data: inclusive visualisation workshops as a component of participatory urban regeneration in Brixton (speaker)
- Flavia Maia, Urban Planning Coordinator, Open Government Fellow, Organization of American States, Brazil (speaker)
- Paul Mullins, The Bartlett Centre for Advanced Spatial Analysis (Using Smart Cities to Deliver the New Urban Agenda: Issues & Challenges).
- Prof Gillian Rose, Open University (Smart Cities in the Making, Learning from Milton Keynes) (speaker)
- Gabriela Uchoa, Head of Agenda 2030, City Hall of Teresina , Open Government Fellow, Organization of American States, Brazil (speaker)
- Saffron Woodcraft, Research Associate at the Institute for Global Prosperity IGP at UCL (Re-thinking sustainable prosperity: East London as a test case for new post-GDP measures) (speaker)
- Dr. Oliver Zanetti, Open University (Smart Cities in the Making, Learning from Milton Keynes)
- Andre Afonso, PhD candidate, The Bartlett School of Architecture, UCL
- Oliver Dawkins, PhD candidate, The Bartlett Centre for Advanced Spatial Analysis
- Abril Herrera, PhD candidate, The Bartlett School of Architecture, UCL
- Efstathia Kostopoulou, Research Assistant, The Bartlett School of Architecture, UCL
- Rafael L. Pinheiro, PhD candidate, Architect, Urban Planner, Belo Horizonte, Brazil.

Invited Non HE speakers/participants(SME, Third party)
- Toby Bennett, SpaceHive: the UK's dedicated crowdfunding platform for places (citizens-led urban regeneration) - (speaker)
- Simona Ciocoiu, a London based interaction designer
- Darshana Chauhan, London Borough of Hackney | Atitudes Network : 100 public spaces : 150 days : 42 cities : how to scale up small bottom up approaches to make a massive difference through use of technology. Case study based in South Asia facilitated by London based partners) - (speaker)
- Nicolas Fonty, justMap (speaker)

- Dr. Steve Lorimer, Smart London Strategy and Delivery Office GLA Greater London Authority (community engagement and digital technologies in the GLA, the tech innovator community, and the investment community) - (speaker)
- Priya Prakash, Design for Social Change Ltd (Citizens engagement platform) - (speaker)
- Tom Saunders, Senior Researcher, NESTA (Public and Social Innovation, Policy & Research) - (speaker)

Invited Non HE speakers/participants (Community Groups and gras-roots organisations)
- Ban private cars in London (Rosalind Readhead) - (speaker)
- Connecting Londoners (David Wilcox)
- Crystal Palace Neighbourhood Forum (Francis Bernstein)
- Just Space (Richard Lee) - (speaker)
- Living Under One Sun LUOS: Neighbourhood Resource Centre in Tottenham, London (Leyla Laksari) - (speaker)
- Take back the city (Rachael Okiya) - (speaker)

Participants Biographies

Andre G. Afonso
Andre G. Afonso is a doctoral researcher at the Bartlett School of Architecture, UCL. His studies have focused on bodily and social interactions with urban media technologies. More specifically, the research is interested on whole-body, movement-based interactions with outdoor media installations, aiming to clarify how these collective, situated bodily interactions can lead to lively urban spaces. As the media installations of this study are highly contextual and their urban settings are unique, the research employs an ethnographic-inspired approach based on case studies. By better understanding the human, spatial and technological factors that involve social interactions with urban media, it may be possible to stimulate the forms of social encounters and engagements that help promote placemaking.

Toby Bennett
Toby Bennett is one of Spacehive's longest serving team members. He joined as part of the Community Management team supporting campaigns from idea stage through to crowdfunding. Using this experience he moved into business development and now acts as a Partnership Executive finding and developing partnerships with both the public and private sectors. In his spare time, Toby is involved in community projects including the inception of Hackney Wick FC, a football club with core social values of fostering community integration. He is now co-founder of The Music Space, an exciting enterprise that provides professional musicians with affordable recording space in return for mentoring and supporting local deprived talent, helping to nurture the next generation of musicians. Always on the lookout for the next exciting opportunity and as an energetic and lively personality he's more than happy to meet and speak to new people.

Lindsay Bremner

Prof Lindsay Bremner is Director of Architectural Research in the Faculty of Architecture and the Built Environment at the University of Westminster. She was previously Professor of Architecture and Chair in the Tyler School of Art at Temple University in Philadelphia (2006 - 2011) and Chair of Architecture at the University of the Witwatersrand in Johannesburg (1998 - 2004). She is an award-winning architect and writer and published, lectured and exhibited widely on the transformation of Johannesburg after the end of apartheid. Her published work on the city include The Politics of Rising Acid Mine Water(2013), Writing the City into Being: Essays on Johannesburg 1998 - 2008(2010), chapters in Johannesburg - the Elusive Metropolis(2008), The Endless City (2008), Desire Lines: Space, Memory and Identity in the Post-Apartheid City (2007), Future City (2005), and contributions to Environment and Planning A and D, Domus, Public Culture, Social Identities, Social Dynamics, Cities and Urban Forum.

Darshana Chauhan

Darshana Chauhan is an urban designer and architect with varied experience of working and managing projects based in the UK, India, Bhutan and Nigeria. She has worked for private and public-sector organisations and is a visiting lecturer at the University of Westminster for the M.A. Urban Design and International Planning Courses. She currently works for London Borough of Hackney as a Senior Design Officer. Her professional works cover masterplanning to furniture design and more recently are geared towards spatial analytics and GovTech projects.

Darshana is the founder of the Westminster Design Competition (South Asia) which was set up in 2012 in collaboration with the National Association of Students of Architecture and more recently Massive Small. The design competition is open to undergraduate architecture students in South Asia and has seen over 2000 students from over 90 Universities participate from over 40 cities. Inspired by the Clean India mission, the competition has evolved as a 'design and build' challenge to bring together the energy of young creative minds and local communities to 'Transform 100 public spaces' across South Asia. The design challenge is a live example of scaling up the impact of 'Small' changes to make a 'Massive' difference at a regional level while using technology as a tool to coordinate and amplify the impact of the work.

Simona Ciocoiu

Simona Ciocoiu is a London based interaction designer with a background in graphic design and motion graphics. During her time with the Intel Collaborative Research Institute she has helped tell the story of the ongoing research, through infographics and other collateral, as well as assisting with the design and production of enclosures for deployments and demos. Previously, she completed the MA Interaction Design Communication programme at London College of Communication.
http://cargocollective.com/simonaciocoiu/filter/stints/About

Oliver Dawkins

Oliver Dawkins is a PhD candidate at The Bartlett Centre for Advanced Spatial Analysis (CASA). Funded by the EPSRC and Ordnance Survey, Oliver's research investigates the value of integrating dynamic real-time urban data with three-dimensional representations of the built environment in order to support urban decision making and communication. Oliver is currently associated with the Intel Collaborative Research Institute for Urban IoT.

Prior to commencing his PhD Oliver obtained a BA in Philosophy, MA in Critical Methodologies and MRes in Advanced Spatial Analysis and Visualisation. His first experiments in spatial analysis led to the creation of an automated function to identify and map privately owned public space from open data. Oliver subsequently specialised in the use of 3D modelling tools, game engines, and mixed reality interfaces in order to communicate urban possibilities and concerns.

Nicolas Fonty

Nicolas Fonty is a freelance architect /urban designer, independent researcher and autodidact mapper. Through research, activism, practice and volunteer support, he has been involved in many initiatives of civic mapping for community-led planning including justMap in London, http://justplace-london.blogspot.co.uk and in Paris http://www.occupy.fr+ http://cartodebout.blogspot.fr

He is member of Civic Wise, an international network for civic design https://civicwise.org/about/ and a section editor of Living Maps Review, http://www.livingmaps.org.uk/ dedicated to critical cartography and participative mapping. See also his work until 2015 on the greater Paris at local and metropolitan scales: http://fonty.nicolas.free.fr

Sarah Gallacher

Dr. Sarah Gallacher is a Research Scientist in Urban IoT at Intel Labs Europe. She is also a member of the Intel Collaborative Research Institute on Urban IoT and through this, has been working in partnership with University College London, Imperial College London and Future Cities Catapult to realise an Urban Internet of Things "Living Lab" in the Queen Elizabeth Olympic Park. The living lab provides a real-world testbed for IoT solutions at scale, to show their potential to solve urban challenges and explore economic, environmental and social impacts. Her current research work includes the development of IoT smart bat monitors (15 monitors) to measure bat activity in the Olympic Park as an indicator of environmental health. Previously Sarah was a Senior Research Associate at University College London where her research focused on human-computer interaction, looking at the cross-over between IoT solutions and citizen engagement. Her previous work has been show-cased as interactive installations in public venues across Europe including Somerset House, The Southbank Centre, The Young Vic Theatre and the Phaenomenale (Wolfsburg, Germany) where her work was shortlisted for the 2015 Human Interface Awards. IoT smart bat monitors project: www.naturesmartcities.com | real-time bat detection data: http://www.batslondon.com/

Christina Geros
Christina Geros is a designer, researcher, and educator currently in Jakarta, Indonesia using videographic, photographic, and written narrative to give voice to the Ciliwung River and communities through an interactive website, cartographically registering each story and exposing the relationships between urbanism, ecology, and politics.
http://www.anexact.org

Muki Haklay
Muki Haklay is Professor of Geographic Information Science at UCL. His research interests include public access to environmental information and the way in which the information is used by a wide range of stakeholders, citizen science and in particular applications that involve community-led investigation, development and use of participatory GIS and mapping, and Human-Computer Interaction (HCI) for geospatial technologies. He is the co-director of the Extreme Citizen Science group (ExCiteS) and work on a range of research projects that involve participatory mapping and science methods.
http://www.ucl.ac.uk/excites/people/academic-staff/muki-haklay

Abril Herrera
Abril Herrera is PhD candidate on Urban Development and Socio-Cultural Change by the Bartlett School of Architecture-UCL where she explores the socio-spatial influence of technological infrastructure in social development. She has been an invited researcher in Plymouth University on the research project "Sustainable Digital Neighbourhoods" (2014). Abril holds a transdisciplinary formation in Political Sciences and Cultural and Media Studies. She has worked on the social empowerment of disadvantaged communities in Mexico City, Tijuana and now in Cornwall. She is committed with science popularisation and with engaging, innovative and transdisciplinary research.

Efstathia Kostopoulou
Efstathia Kostopoulou studied architecture in Greece before completing her MSc in Advanced Architectural Studies at Bartlett, UCL. Her research spans across urban design and heritage to infrastructure and the publics. She is particularly interested in new technologies for the re-construction and representation of spatial narratives and public engagement processes for the co-production of place. She is currently a Research Assistant at the Bartlett, UCL.

Leyla Laksari
Leyla Laksari is the founder of 'Living Under One Sun' LUOS. The charity aims at creating community led well-being and healthy connected neighbourhoods.

Richard Lee
Richard Lee is the coordinator of Just Space, a London wide network of voluntary and community groups working together to influence planning policy at the regional, borough and neighbourhood levels. It was formed in 2006 to act as a voice for Londoners at grass-roots level during the formulation of London's major planning strategy.

Stephen Lorimer
Dr Stephen Lorimer is the Smart London Strategy and Delivery Officer at the Greater London Authority. He develops the Mayor of London's policies and programmes in smart cities and the strategic transformation of city services using digital technologies.

Stephen is the programme manager for the forthcoming London Office of Technology and Innovation, a new vehicle for digital collaboration between the GLA, London Councils and the London Boroughs. It will establish new digital governance for London, promote common standards, and foster open innovation. He was the lead developer of The Future of Smart, a review of how smart city technologies engage Londoners and enable good growth when the city works with innovators. He was a co-author of Digital Master Planning, An Emerging Strategic Practice in Global Cities, a study of how cities around the world plan for amplification of existing investments in infrastructure, improved government services, and economic development through sustained, incremental innovation in digital technology.
Before working for the Mayor of London, he worked in consultancy and academia. He managed the Sustainable Society Network for the RCUK Digital Economy Programme, commissioning studies in how technology solves societal challenges. His doctoral and post-doctoral work on big data, energy, and city life spanned the architecture, planning, spatial analysis, and transport studies centres at UCL. His work as a consultant to local authorities in the UK, France, and Ireland ranged from urban design in masterplans to policy work for housing and conservation standards and design.

Clare Melhuish
Dr Clare Melhuish is Senior Research Associate and Co-Director in the UCL Urban Laboratory, where she has conducted comparative research on university-led urban regeneration to inform UCL's plans for the development of a new campus in the Queen Elizabeth Olympic Park (UCL East). She is an anthropologist specialising in architecture and the built environment, including Modern Movement architectural heritage and social identity; domestic space and cultures; ethnographic research and urban design and regeneration; and the ethnography of architectural design practice. Prior to joining the Urban Lab she was Research Associate in Geography at The Open University on the ESRC-funded project 'Architectural atmospheres: the role of digital visualising technologies in contemporary architectural practice', which involved a multi-sited ethnography of urban design practice in London and Doha; and co-developer of the cross-disciplinary research project Caribbean Urban Aesthetics at the OU. She has also worked extensively outside academia as an architecture critic, author and curator.

Paul Mullins

Paul Mullins is a Research Assistant at The Bartlett Centre for Advanced Spatial Analysis (CASA), UCL, working on a MacArthur Foundation-funded project (Applicable Urban Informatics). Over the past 5 years Paul has developed an expertise in smart cities and the use of new technologies in the built environment, with special interests in urban governance, civic technology and data. In recognition of his expertize he was invited to join Tech London Associates, Smart Cities Working Group as an area lead examining vulnerable sectors of UK society and was also chosen to represent CASA/UCL at the Mayor of London stand at the Smart City World Expo in Barcelona (2016). Prior to his current role, Paul completed the MSc on the Smart Cities and Urban Analytics course at CASA with distinction. This was built on 10+ years of architecture and urban design experience working on government and private sector projects for several large organizations, as well as multi-disciplinary design practices across the UK and internationally. Paul also holds an MSc Architecture and Architecture from Seoul National University, and a MFA in Fine Art from The Royal Academy Schools of Art.

Rachael Okiya

Rachael Okiya is an organiser of the campaign Take Back the City. She studied Sociology and Anthropology (with Gender Studies) and focused in her dissertation on 'Race, class and urban regeneration'. Rachael finished her masters at SOAS in migration and diaspora studies.

Alan Penn

Prof Alan Penn is the Dean of the Bartlett Faculty of the Built Environment, a HEFCE Business Fellow and a founding director of *Space Syntax Ltd*, a UCL knowledge transfer spin out with a portfolio of over 100 applied projects per year, including whole city masterplans, neighbourhood development plans and individual buildings. He is a member of the Space Group, an EPSRC Platform funded research group. He was the Chair of the Architecture, Built Environment and Planning sub-panel 16 and a member of Main-panel C for the Research Excellence Framework 2014. He is Principal Investigator on the £5m five year EPSRC funded Digital Economy Hub: UK Regions Digital Research Facility. His research focuses on understanding the way that the design of the built environment affects the patterns of social and economic behaviour of organisations and communities.

Rafael L. Pinheiro

Rafael Pinheiro is an Architect and Urban Planner with a master's degree from Escola de Arquitetura of Universidade Federal de Minas Gerais (UFMG), Brazil. He directs an architectural practice in Belo Horizonte, Brazil. He taught architectural design and urban legislation at Universidade Federal de Ouro Preto (UFOP), and currently teaches at Faculdade Pitágoras. He is a PhD candidate where he researches urban technologies, open data and collaborative platforms for urban planning. He has taken part in different urban projects, and proposals, individually / teams, in Brazil, France and Morocco.

Priya Prakash

Priya Prakash is founder of London-based award-winning Design for Social Change (D4SC). Her focus is improving public infrastructure planning and development in real time, by combining big data with active citizen engagement. D4SC's Changify and Citizen Canvas platforms have been piloted in the UK and Europe with plans for rollout in south-east Asia. She is on Tech City Insider 100, IBM's People for Smarter Cities and has featured in The Financial Times, The Sunday Times, BBC, Wired and The Guardian. Before D4SC, Ms Prakash led the global design team as head of mobile phone user experience at Nokia. At the BBC, she was lead designer and co-inventor of iPlayer with joint patents. http://www.d4sc.io

Gillian Rose

Gillian Rose is Professor of Cultural Geography at The Open University and a Fellow of the British Academy. Her current research interests focus on contemporary digital visual culture and on so-called 'smart cities'. She is the author of *Visual Methodologies* (Sage, fourth edition 2016), as well as a number of papers on images, visualising technologies and ways of seeing in urban and domestic spaces. She is currently leading the ESRC-funded project *Smart Cities in the Making: Learning from Milton Keynes*; her particular interest is how digital visualisations operationalise smart cities (SCiM-MK.org). Gillian blogs at visual/method/culture, and a full list of her publications can be found at oro.open.ac.uk. (NB Gillian moves to the School of Geography and the Environment, University of Oxford, on 1 October 2017.)

Rosalind Readhead

Rosalind Readhead is an Environmental Campaigner. She has a creative background in Fine Art and she has worked as a freelance Textile Designer. In 2014, Victoria started her campaign Ban Private Cars in London. She set up a simple wordpress blog and began writing a Manifesto. She then stood as an Independent London Mayoral Candidate in 2016 to open up the debate on the car problem in London and call for radical change on the streets of London by prioritising walking cycling and public transport. She engaged in debate across traditional media and social media platforms and at Hustings.

Twitter and Facebook have enabled her to network online and connect with other campaign groups across the globe. She often meets those contacts offline so she can engage on another level face to face. Her campaign is both local and global; as cities around the world collaborate on grassroots initiatives that address some of the most profound issues of our time: pollution, climate change and the obesity health epidemic.

Victoria uses data from online sources to enhance her campaign. She also initiate her own data. The recent data was the result of a Freedom for Information request to Transport for London. https://banprivatecarsinlondon.com

Gabriela Uchoa
Gabriela Uchoa is a Fellow at the Organization of American States in Open Government in the Americas. MSc in Smart Cities and Urban Analytics (Centre for Advanced Spatial Analysis, Bartlett School/University College London), PGDip in Design Practices in Architecture and Planning (Federal University of Piauí, Brazil), and BSc in Architecture and Planning (Federal University of Pernambuco). She has experience in Architectural Practice, Urban Planning, Public Administration and Data Analysis. She was a lecturer at UFPI (Brazil) and Uninovafapi (Brazil), in the courses of Urban Legislation, and Social Housing. For the last 6 years she has been working as urban planner at the municipal government of Teresina (Brazil), where now she is in charge of the implementation of Teresina Agenda 2030, the local sustainable development plan to meet the objectives of the Sustainable Development Goals and the New Urban Agenda. In that strategy, they are implementing the Observatory of the Sustainable Development of Teresina (Observatório da Agenda 2030), and the Teresina Urban Lab, to empower citizens to monitor public policies and contribute towards city development through active participation.

Saffron Wood
Saffaron Wood is a Research Associate at the Institute for Global Prosperity at UCL. She leads the Institute's research on developing new models and measures of sustainable local prosperity in East London. She has conducted extensive academic and applied fieldwork with communities and built environment professionals engaged in large-scale urban development and regeneration programmes.
Saffron is a PhD candidate in Anthropology at UCL, where her research focuses on London's Olympic regeneration legacy and new communities. Saffron co-founded of Social Life, a social enterprise established to examine how local communities are affected by urban development and regeneration. See eg http://www.engage-wf.net and http://www.engage-wf.net/2016/05/25/engagement-methods/

Oliver Zanetti
Oliver Zanetti is a Research Associate on the project *Smart Cities in the Making: Learning from Milton Keynes* (SCiM). He completed his PhD at the Open University in 2013 and, since then, has been working on a range of projects which have explored practices of urban citizenship and community. He worked as a researcher on Making Meaningful Metrics, a six month project which used participative design to explore the ways citizens engage with smart tools for accessing transport data (Bell et al., 2017) and undertook another six month project, with Sophie Watson investigating the place of Buddhism in contemporary London (Watson and Zanetti, 2016). Oliver now participates on two of SCiM's work packages. One of these addresses the entanglements of citizenship within smart, the research upon which this paper is based, and the other addressing the kinds of work practices involved in bringing smart into being.

Community (grass-roots) Groups and Citizens led-Platforms

Living Under One Sun LUOS
Living Under One Sun is a community organisation and charity based in the heart of Tottenham. It promots community development and empowerment, job creation and healthy living, including protection of Tottenham marshes from inappropriate development. LUOS was created in 2005 in a corner of Tottenham by mothers of many cultures and ages wanting to reduce their isolation, know more and make their much-neglected neighbourhood safer.
Through a weekly 'meet, cook and eat' peer support group shared their life stories, gained trust, confidence and strength to reach out – the feeling was ''*We are all equal under one sun"!* With a place to meet, a pot full of food and some fun and friendship, we experienced the power of what we can learn and do for ourselves, our families and our neighbourhood. Soon this grew into a local 'village square' meeting place for all, accessing services, gaining qualifications, training community leaders and delivering projects, supported by a Council community worker.
In 2008, it was registered as a community- led, not for profit, limited company.
Later that year and cut off from green spaces, the group took on transforming part of a vandalised site on Tottenham Marshes, creating a beautiful community allotment - and beginning our journey of working with schools, other community groups and partners.
LUOS's successful 'can do' and 'By the community - For the community' approach has secured funding and commissions to deliver a wide range of innovative community empowerment projects and services - responding to key community needs and aspirations. In 2011, against a background of cuts in services and support and the Tottenham riot, like many others LUOS future was uncertain.
As volunteers, and despite no funds or workers, the response was to build on the community's aspirations, believing that people. LUOS gathered support from the community, Council and partners, secured a base, won funding from the Peoples Millions Lottery for our Blooming Beds and Bees project, appointed a part time coordinator, winning the Best Community Group of the Year Award for the UK from The Conservation Trust. In 2017 LUOS won the Queen's Award for Voluntary Service.
www.livingunderonesun.co.uk

Just Space
Just Space is a London wide network of voluntary and community groups working together to influence planning policy at the regional, borough and neighbourhood levels. It grew from sharing information, research and resources on the Further alterations to the London Plan in 2007. The Just Space ethos is one of grass-roots networking, informing and supporting local communities so that their contributions to planning policy are empowering and effective. It does this by:-
-Maintaining an overview of strategic planning issues and their implementation
-Providing mutual support to community organisations engaging in London Plan process
-Raising awareness of London planning policies at local level

-Cascading learning to the local level in a way that informs involvement in Local Plans
Working in partnership at the local level to develop new links between voluntary and community sector groups, groups concerned with equalities and active residents
-Developing plain language information that is accessible for all Londoners.
-Coordinating the skills and expertise of members where possible.
Membership of Just Space consists of organisations and community groups who are active in working on London Plan related policies and who are participating in the EIP process. Members at general meetings will consider and approve any requests for membership of Just Space. Groups do not have to be constituted to be members. Just Space welcomes observers who are interested in developing their knowledge of London Plan policies or who may have an interest in specific policy areas and are keen to share their expertise.Membership of Just Space changes from time to time as new groups join and others withdraw or (usually under pressure from cuts) find that they are no longer able to participate effectively. This list is not definitive but lists groups that take part in activities and actions. See the last page of Towards a community-led London Plan for a list of groups participating in 2016.
There is a "LIST" in Twitter of the active participating groups which use Twitter. You can look at their recent tweets by going to https://twitter.com/justspace7/lists/jsgroups and see who the listed groups are at https://twitter.com/justspace7/lists/jsgroups/members
https://justspace.org.uk/about/members/

Take Back the City
Founded in March 2015, the grassroots movement and political campaign has been working for the last two years to put marginalised voices in the centre of London politics and challenge the political system by showing what real, direct democracy looks like and just how it could work. It is a grassroots campaign for disillusioned Londoners who are organising against rip off rents, racist policing, pollution, lack of community spaces and unaccountable politicians. Their want is to create a democratic, diverse London for all, especially marginalised Londoners. The campaign takes inspiration from Spanish citizen platforms, where five years of austerity have shaken the establishment, and stress the importance of creative mediums, for example art and poetry, in attracting politically-disengaged participants.
http://www.takebackthecity.org

JustMap (citizens-led platform)
JustMap is an ongoing collaborative map of London community resources, campaigns and projects. It is based on public workshops organised at community events or festivals to collect directly from Londoners their intelligence of their city. Its goal is to highlight communities resources and projects, to connect actors campaigning for a fairer London and to identify strategic cooperations.
The particularity of justMap is to mix online process and public workshops to address a wider and more diverse audience. Its other originality is to address both local and metropolitan scales, the overall London map being thanks to an addition of local

knowledge, progressively collected during the scattered workshops (14 at the moment) http://justplace-london.blogspot.de

   The objective is to develop a tool :
- to make more visible who and what matters,
- to share specific knowledge between groups working on similar issues,
- to connect, cooperate and build alliances.
   and all this both locally and across the metropolis :
- a tool for local community-led initiatives in gneral and planning in particular.
- a tool for metropolitan sharing knowledge and networking campaigns.

This collaborative project http://justplace-london.blogspot.co.uk/ is initiated by Just Space and Reclaim Our Spaces : https://justspace.org.uk
Living Maps : http://www.livingmaps.org.uk
and Civic Wise : https://civicwise.org/about/

Spacehive (citizens-led platform)
Spacehive is an award-winning crowdfunding platform for civic projects, designed in the UK with the help of thousands of citizens, government, businesses, and grant-makers. The platform aims to make it as easy as possible for people with ideas for improving their local area to attract the support and funding they need to deliver them. To do this, Spacehive has streamlined key processes involved in proposing, funding, and delivering projects - from checking the viability of ideas to identifying and applying for funding from grant-makers and the 'crowd' at the same time, and reporting back on the impact they make.

Cities and towns are rich with creativity and resource. Spacehive allows collaboration across silos like never before, empowering changemakers to create vibrant civic spaces that boost quality of life and the local economy. It is a model that works for community change-makers and works for places.
www.spacehive.com