



# Conference Titles and Abstracts

**DAY 1 (FRIDAY 12<sup>TH</sup> NOVEMBER)**

**OPENING KEYNOTE:**

**Exploring digital interfaces across the multiple systems of the city**

**Prof. Susan Parnell\***

University of Bristol

The palimpsest of the city is increasingly sedimented and erased through digital design, intervention and use. Yet despite its increasing power and presence, many of the digital interfaces of the city remain elusive, as much because we fail to understand the city as we fail to acknowledge the impact of the digital. Rather than starting with technology, therefore, I use the 'PEAK Urban' framing to excavate the varied systems of the city to reflect on where and how digital technology might enter into or evade the urban process. PEAK Urban is a framework focussed on distilling the complex systems and their interactions across the city, it emphasises (P) projections or the things we know and track in urban change such as infrastructure or demography; (E) the emergent consequences or urban properties of these changes through catalytic or summative processes; (A) the adoption and adaptations made in the city management, design or lifestyle to absorb the dynamics of change and (K) the knowledge capacity and sharing about urban transformation.

## **PAPER SESSION: SCALING SMART CITIES**

### **Speaker 1:**

#### **“Lilliputians vs Leviathans”: The Politics of Scale in Futuristic Urban Imaginations**

**Dr. Ipshita Basu\***

University of Westminster

On the eve of joining the European Common Market in 1975, Schumacher’s *Small is Beautiful* arrived as a radical challenge to the dehumanising effects of “gigantism” in mass production and mass political systems. “Small” in economic thought conveys people centric, locally subsistent and sustainable systems, which is quite the mantra today, but is it radical enough to change the markets that order people’s lives and determine the shape and form of future cities? The answer to this question, in part, lies in how “scale” is imagined in developmental planning, involving economic systems and political structures in tandem. Ideas on small vs big, local vs global, indigenous vs cosmopolitan, mass production vs people centric processes originate in colonial and nationalist discourses and are deeply contested. Some of the dominant ideas underpin “taken for granted” notions on what makes a good city or a good urban economic system while other heterodox beliefs order alternative approaches. Deconstructing these “received wisdoms” on scale by drawing on postcolonial literary texts, geopolitical acts of jumping scales and spatial reproduction of scalar logics this talk reveals the socially constructed ideas of scale as it manifests in developmental and nationalist practices that continue into imaginaries of digital urban futures.

**Speaker 2:**

**Simulating democracy: ICCC in India's smart cities**

**Prof. Ayona Datta\*, Prof. Sanjay Srivastava\***

University College London

In this presentation, we focus upon a techno-utopian vision of future cities enabled by the creation of Integrated Control and Command Centres (ICCCs) within the 100 Smart Cities Mission in India. The ICCCs are imagined as the pivots around which the ecosystem of the programme is organised and are the common denominator across all 100 smart cities. Developed and assembled by a host of international and domestic IT partners, infrastructure companies, developers and a whole host of companies, ICCCs produce an operational mechanism that ostensibly connects raw data to governance, administration and infrastructural efficiency. This paper will examine the paradoxical nature of democracy that is simulated by Integrated Command and Control Centres (ICCC) now established in 83 of the 100 smart cities. The ICCCs are spatial nodes in the unidirectional flows of data from the citizen to the state, assembling different structures of governance (traffic, waste, water and so on) within a real-time visualisation. In the context of India's 100 smart cities mission, the assemblage of ICCCs in its second-tier cities take a special significance as a simulacrum of 'democracy' and 'development' in transitioning smaller cities towards a 'smart urban future'.

**Speaker 3:**

**'CAVs for All': Thinking through scale in simulations of the city**

**Adam Michael Packer\***

University of Oxford

Simulation is a type of computer modelling that is becoming increasingly important in the development of Connected and Autonomous Vehicles (CAVs) systems. Instead of relying on the slower process of 'real-time' on-road driving, simulation is considered to be a cheaper, more efficient alternative with 'virtual' environments providing additional scenario testing capacity and capability. Google's Waymo, for instance, claims that 2.5 billion miles were driven using their simulation software compared with the 3 million miles driven on public roads by their self-driving cars in 2016. One of the ways simulations are developed is through partnerships brokered between local authorities, technology companies, insurance companies, and academia. The OmniCAV project is exemplary of this type of arrangement being conducted in Oxfordshire, UK. Led by Oxford University spin-out company Latent Logic, the project combines a variety of machine learning techniques within a highly detailed simulation environment to enable 'smart actor' interactions with CAVs under test conditions. This paper seeks to unpack notions of scale evident within three aspects of this simulation. The first is on the intense set of visual data practices involved in producing the simulation. The second is on notions of scale evident within the model itself. The third reflects on the claims and logics of OmniCAV partners on the relative advantages of simulation in accelerating the 'race' to autonomy.

**Speaker 4:**

**Multi-scalar smart city governance in Bhubaneswar and its implications on-the-ground**

**A/Prof. Tooran Alizadeh\*, Deepti Prasad\*, Prof. Robyn Dowling\***

University of Sydney

Proliferation of smart cities in the Global South has brought the governance and implementation of smart city initiatives into the spotlight. As a result, governments at different spatial scales are subjected to the new and added responsibilities of policymaking and planning, conducting competitions, liaising, financing, monitoring and implementing smart city initiatives. In this paper, we explore how the governance structures, mechanisms, and processes are utilised to create smart cities in India – as part of the Smart Cities Mission, introduced by the Government of India in 2015. We offer extensive empirical analysis in a small city – Bhubaneswar – ranked first in the initial list of 20 smart cities prioritised for implementation. First, we look at how the Smart Cities Mission’s governance structure unfolds and intersects at three spatial scales of national, state and local. Here, a particularly new form of governance involving public-private actors is configured, which – at times – conflicts with the elected local government already in place. Second, we examine the implications of the governance processes on-the-ground in Bhubaneswar: a more fine-grained analysis of place-based outcomes such as affordable housing, infrastructure services, and citizen engagement. In conclusion, we highlight the lack of collaborative governance and the reduced capacity in local governments, the distinctive challenges imposed to informality by smart initiatives, and the fragmented urban interventions at the cost of socio-spatial division – as ongoing issues of smart city development in India.

## **PAPER SESSION: SCALING INFRASTRUCTURES**

### **Speaker 1:**

#### **Blended Data Infrastructures and Localisation: Smart Urbanism in the Age of Pandemic**

**Dr. Jaideep Gupte\***

Institute of Development Studies

Disease control remains a key consideration in city making. There are however competing city visions and infrastructural regimes employed to enable this consideration. In a relatively short period of time, COVID-19 has noticeably 'repurposed, reshaped or reoriented' urban technologies, institutions, organisations and people in their efforts to manage and mitigate the public health crisis. The drive towards centralisation, often on the back of utopian 'smart city' narratives, stands in contention with a simultaneous proliferation of 'frugal innovation' on the part of firms, consumers and governments in developing country contexts. Drawing on multi-year engaged research collaborations with municipal authorities in Indian 'small cities', this paper offers vignettes of successful local use of data and data infrastructures, set amongst inappropriate or non-existent national data strategies, capacity gaps, and severely under-resourced basic infrastructures. The paper focuses on the months leading up to the onset of the pandemic, once the national decision to lockdown all public interaction was taken, as well as a period of six months after active pandemic control interventions were first implemented.

**Speaker 2:**

**Bearing witness: human agency, disaster response and the limits of digital technologies in Mexico City**

**Dr. Andrés Luque-Ayala\* and Dr. Alejandro de Coss-Corzo\***

Durham University, University of Bath

In the aftermath of the 19 September 2017 earthquake in Mexico City numerous volunteer-led responses emerged. One of the most visible ones, #Verificado19s, built and used a range of digital platforms to support relief efforts by mapping damages, collecting information about needs and available support, and communicating response strategies to the wider public. Despite the apparent centrality of digital technologies, volunteers that took part in #Verificado19s highlighted the importance of bearing witness to disaster as a key human practice in articulating relief and response. The principle under which they operated was simple. No information about the effects of the earthquake or requests for support—from collapsed buildings to requests for equipment needed to deal with rubble generated—could make it into the #Verificado19s digital platform before two human accounts had verified it. The centrality of witnessing calls attention to the ways in which digital technologies and human agency co-constitute each other; questions technocentric approaches to urban governance in disaster and beyond it; and affirms a distinctiveness of the human by highlighting the importance of knowing through personal presence and perception. This paper establishes a dialogue between an emergent digital city from the ground up—which disrupts utopian imaginaries of technological driven urban life—and the post-human agencies that sustain it.

**Speaker 3:**

**Infrastructural integrity? Rescaling urban water governance through corporate management**

**Dr. Matt Birkinshaw\***

University College London

India's smart city vision relies on a large proportion of private investment and expertise from public-private partnerships (PPPs). This paper analyses a PPP for water supply to consider the scalar politics involved and their implications for smart urban futures.

This PPP, part of an experimental archipelago of 24/7 water projects in Delhi, contracts a multi-national corporation to improve both the technical integrity of the physical network and ethical integrity of its management. The project creates a new scale of water governance, imperfectly realised over other scales for water management, politics and planning. Within the project, new technologies aim to rescale ideas of water and generate ecological modernist understandings amongst consumers. Volumetric bills are intended to create responsibility for water losses within the individual household, while bulk meters allow unauthorised neighbourhoods to be targeted for loss-reduction. The resulting tensions with residents and their political representatives threaten project progress and staff.

The privately-managed project scale cannot be isolated, either hydraulically or socially, from the wider 'public' city. Even within the project, public and private infrastructures and interests are blurred and entangled. Indeed, relationships between public and private are themselves scalar. The case illustrates the need to engage with scale relationally in both research and urban practice. It suggests that investment in some forms of PPP will be an unattractive risk for organisations unable to absorb financial and political penalties. This is likely to restrict water supply projects to major players or those with political support. More broadly, given the limits to municipal bonds, the challenges to PPPs indicate that the ambitions of smart cities in India will increasingly require land-based financing.



**Speaker 4:**

**The problematisation of big data circulation in Santiago de Chile's Public  
Transport**

**Ignacio Perez Karich\***

University of Oxford

Over the last decade, a lot has been said on smart urbanism, and more lately about platform urbanism, as projects and ideas that loosely connect the set of confluences between data, the digital, cities, labour, governance, and politics. An important part of this agenda has been related to critical analysis around the "smart" in "actually existing" projects: ideas on the expansion of platform capitalism; novel forms of governmentalities structured in pervasive forms of quantification, control, and the erosion of privacy rights; and the proliferation of infrastructural forms of urban exclusion and colonialism.

Despite these valuable efforts, not much has focused on analysing what data does in cities as a *problematisation*. On the one hand, that is, to explore how data becomes a problem by observing the ruptures, disruptions, and blockages in the process of data circulation. And on the other hand, to identify how these problems are generative of specific forms of experimentation that pragmatically reveal *what data does* in the city.

Drawing on the concept of "problematisation" (Foucault, 1984). I analyse the way in which data circulation *becomes a problem* in Santiago de Chile's public transport. In doing so, I examine three problems: the fragmentation of control rooms, the negotiation of expertise, and the problem of translation. Using an ethnographic approach, I reconstruct the trajectories of data circulation (real time passenger information) and the use of urban commercial data platforms in public transport (such as Waze). Focusing on the generative capacity of problems to inflict active responses through an experimental "ontology of ourselves" (Stengers, 2021). Ultimately, I argue that these active responses have the strategic capacity to coordinate actions and knowledge enacting specific configurations and governing techniques, eventually, revealing what data circulation does in Santiago's public transport.

## **KEYNOTE 2:**

### **Reorienting toward 'small' digital urbanisms: Pandemic, protest, and their afterlives**

**Prof. Sarah Elwood\***

University of Washington

The upheavals of a global pandemic and global protests around racial political violence and authoritarian populism have been accompanied by intensifications of the forms of digital capture, control and violence that characterize life (and too often, death), in the 'smart' city. Yet this period has also seen a resurgence and reinvention of (digital) praxes that refuse the logics and relations of technocapitalist urbanism, from the creative co-optation of workplace 'efficiency platforms' by mutual aid movements for collective care, to viral digital interruptions of police surveillance and white nationalist politics by protestors, teenagers and global fandoms. I argue that these grounded densely relational digital praxes of everyday life recalibrate the city around solidarity, care, and thriving, and offer urgent theoretical and political lessons. I theorize these digital praxes not as 'new', but as the present histories of longstanding political-social wisdoms forged by historically marginalized groups. I trace how these praxes refuse the abstracted scalar logics of 'smart' cities and instead chart throughlines toward digital urbanisms organized around accountable emplacement, material and bodily relations of collective thriving, and politics of rupture and reinvention.

## **PAPER SESSION: RETHINKING SMART**

### **Speaker 1:**

#### **Feminist digital geopolitics, privacy and everyday life**

**Dr. Philippa Williams\*, Lipika Kamra**

Queen Mary University of London

Since WhatsApp launched in India in mid-2010 it has become the leading digital platform for communication in India with over 400 million active users. The messaging platform's defining feature is its end-to-end encryption by default on messages between individuals and groups in the digital equivalent of the 'living room'. In recent months the battle over digital privacy has increasingly animated big tech, government and ordinary people's interests in India.

This paper seeks to excavate the relationships between digital geopolitical processes and everyday life through the lens of WhatsApp's 2021 privacy policy update, which alongside India's new Internet regulations and delayed Data Protection Bill - has sparked high profile legal and governance disputes between WhatsApp and the Indian state. In an age of 'surveillance capitalism' (Zuboff 2019), 'data colonialism' (Couldry and Mejias 2019) and 'digital authoritarianism' (Shahbaz 2018) the Indian government is pushing back against big tech power in the name of security whilst WhatsApp sues the Government of India for undermining citizens' constitutional right to privacy. Meanwhile users of digital technology are increasingly aware of the extraction of their data, yet often struggle to protect their everyday digital privacy. It is in this context that the paper traces the lines between digital geopolitics and everyday experiences and meanings attributed to digital privacy to reconceptualise privacy beyond Euro-American knowledges and practices (see Arora 2019).

(co-authored with Lipika Kamra)

**Speaker 2:**

**Hindustan ban nahi raha, bana hua hai: Building a smart city bottom up through frugal technologies of shared auto systems, bazaars, and local councilors.**

**Varun Patil\***

Max Weber Institute of Advanced social studies, University of Erfurt, Germany

“Hindustan ban nahi raha, bana hua hai. Jo sheher unhone mil chuke hai wo already bane hai, unko tabah nahi kiya jaasakta. Purane aur naye ka mel ho na chahiye’ (Hindustan is not being made, it already is made. The cities we got (after independence) were already made, we can’t destroy them. We should combine the old and new elements’) ----A street trader in Jalandhar on how the smart city mission should proceed.

The current iteration of Smart city mission in India has been criticized for being not attentive to local context and relying on costly, all-encompassing technologies (Datta 2015, Mukhopadhyay 2015, Khan, Taraporevala and Zérah 2018). In this paper presentation, I will argue how rethinking scale for an inclusive smart city should begin with engaging local systems of mobility, commerce and governance such as shared auto systems, bazaars (local markets), and local councilors. Firstly, I will talk about how in Jalandhar and Nashik, sites for the small smart cities project, the Smart City Mission problematically attempted at bypassing or disciplining these local systems. Secondly, I will talk about how these attempts were resisted and understand why these local systems continue to proliferate. Finally, I will talk on how we should see these systems as a solution to improve mobility, commerce and governance. The shared auto systems create multiple linkages within the city, connecting the old and new parts of city, and provide useful opportunities for many youth who have been excluded from the formal economy due to the slowdown or lack of skills. The often-mobile bazaars provide employment to the city much faster than any parking malls, riverfront development or skill development programs which are part of Smart City Mission. The bazaars also, drawing upon Jane Jacobs’ work (1961,) keep the neighborhoods dynamic and safe. The much-vilified councilor provides opportunities and knowledges for governance and social welfare which the big data and digital technologies cannot measure upto (Chatterjee, 2004). Without romanticizing these local systems which have their own

power dynamics, I will argue for them to be conceived as dispersed frugal technologies which are essential to build a smart city bottom up.

#### References.

Chatterjee, Partha. 2004. *The politics of the governed: reflections on popular politics in most of the world*. New York: Columbia University Press. Harvard.

Datta, Ayona (2015): "A 100 Smart Cities, a 100 Utopias," *Dialogues in Human Geography*, Vol 5, No 1, pp 49–53.

Jacobs, J. 1961. *The Death and Life of Great American Cities*. New York: Random House.

Khan, Taraporevala and Zérah (2018) *Mission Impossible Defining Indian Smart Cities*, December 15, 2018 vol III no 80 49

Mukhopadhyay, Partha (2015): "The Unsmart City," *Seminar*, Vol 665, No, pp 2–6.

**Speaker 3:**

**Fragments of a kaleidoscope: redefining the small Indian city through smart urbanisms**

**Arunima Ghoshal\***

Centre for Urban Austerity, De Montfort University

Critical urban scholarship is beginning to look beyond the dominant smart city discourse – that of a top-down, techno-fetishist, reductionist perspective (Soderstrom, et al 2014). Recently, a strong case has emerged for the need to understand how the prevalent smart discourse is being provincialized (Chakraborty, 2000; Odendaal, 2021) in cities of the Global South. They present a unique opportunity to examine the contradictions of smart urban imageries, shaped by new sets of space-time relations (Kitchin, 2014). Of particular interest is the transitional moment of urban development in smaller Indian cities as they manifest local translations to smart discourse through grassroots movements, and messy realities of everyday lived experience. These local mutations contest the narrative of a future of ‘fast urbanism’ (Datta, 2017) usually characterised by technological innovation, streamlined governance strategies of ‘best practice’ and ‘replicable solution’ (Joss et al.).

Using empirical data gathered through ethnography and semi-structured interviews in Bhubaneswar, this presentation touches upon some of the ways smart urbanism plays out contextually (with reference to its urban evolution), and relationally with smart materialities (with reference to human appropriation of digital infrastructures). Responding to this workshop’s call to rethink smart urbanisms, this presentation uses a scalar-sensitive approach to comprehend the contestations of replicable, pan-city smart initiatives within the city. Referencing the planning, implementation and experience of variegated smart initiatives in Bhubaneswar, it brings attention to a fragmented experience of smart urbanisms. This will speak to the debate on geographical scale (Marston, 2000; Jones, 1998) by commenting on the amorphous nature of ‘smartness’ produced at the juncture of complex historical, socio-political and spatial processes in the tier-2 Indian city. Finally, using Bhubaneswar’s case study, the presentation comments on the role of the small Indian city in disrupting and challenging the national and global techno-utopian fantasy that the smart city symbolizes.

**Speaker 4:**

**Storying India's Smart Cities: a multi-scalar narrative analysis of cities yet-to-come**

**Dr. Srilata Sircar\* & Prof. Melissa Butcher\***

King's College London & Birkbeck, University of London

The 'Smart City' has been positioned as an urban paradigm taking advantage of digital technology to address key challenges in service delivery and governance of cities. However, as this paper will argue, this hegemonic form of place-making has been constructed as much in discourse as in materiality. Using Ameen's (2016a) framework of narrative mapping to think through India's Smart City Mission, this study examines the inherent power relations embedded in a Smart City story disseminated via an intersection of transnational, national and local elite actors. These actors use rhetorical strategies to embed the Mission in an overarching narrative of modernity via neo-liberal economic development, producing an ideal 'smart' subject to demarcate who does and does not belong in this city yet-to-come. For the vulnerable, the story of urban displacement and precarity remains the same.

**Speaker 5:**

**Making sense of the emergent smart city: the role of local storytelling**

**Dr. Robert Cowley\***

King's College London

We may wish to recast smart urbanism as a process of translation between scales, with national policies and even global imaginaries of 'best practice' in dynamic interplay with emergent, fragmented and potentially disruptive activities on the ground. But my aim will be to highlight the ongoing role of local authority 'story-telling' in channeling this process in certain directions rather than others. I propose that such policy stories are particularly visible and influential in 'secondary' cities, and will provide examples from three cities (Bordeaux, Manchester and Ningbo) whose smart ambitions have played out in quite different policy and institutional landscapes. Their stories will be collectively positioned as flexible over time, adapting to emergent projects, and morphing to encompass targeted activities – but simultaneously displaying path dependencies which constrain the emergence and spread of alternative practices.



## **DAY 2 (SATURDAY 13<sup>TH</sup> NOVEMBER)**

### **KEYNOTE 3:**

#### **Speaker 1:**

#### **In between tinkering and the grand development vision. Towards an alternative theory of digital innovation**

**Prof. Ursula Rao\***

Max Planck Institute

For a while now, social scientists have been fascinated by utopian narratives of the digital revolution and ended up writing about tinkering, sobering tales of the everyday practical accommodation by which badly aligned systems are provisionally patched together. While techno-optimists promise things like urban renewal and inclusive governance, the roll out of actually exciting digital technology leads, predictably, to myriad unwanted results and creates new exclusions and hardships. I propose the figures of synoptic time and meantime to understand the relation between proximate experiences and distant dreams. Handling “smart” technology requires patience and people succumb to digital impossibilities. Yet, iterative learning, software updates, new gadgets, reform projects provoke people to learn and hope, and keep alive utopian dreams. By constantly “improving” imperfect systems, people bring about digital futures that hold in suspense what is, could be, and might be possible.

**Speaker 2:**

**Everyday governance and the smart city: Insights from research on  
municipal agency in small Gujarati and Bengali towns**

**Prof. René Véron\***

University of Lausanne

Smart city discourses and related government programs have reached smaller urban areas in India only recently – and after we carried out our research on the everyday governance and agency of small municipalities in Gujarat and West Bengal, on which this presentation is based. Our research found that government programs, including the Jawaharlal Nehru National Urban Renewal Mission, reinforced the power of parastatals in infrastructure provision, gave a bigger role to consultancies in urban planning and reduced the financial independence of local governments. However, our study also points to important cases of municipal initiative and agency within the given constraints. These results may provide useful hints for the study of India's current Smart City Mission, as well as West Bengal's Green City Mission, and their embedding in everyday practices of local governance.

## **PAPER SESSION: LIVING IN THE SMART CITY**

### **Speaker 1:**

#### **In the city, out of digital place: Learning from urban peripheries**

**Kavita Dattani\***

Queen Mary, University of London

In discussions on platform urbanism and gig economies, 'the digital' is most often approached as a universal category and experience. Thinking with urban peripheries, or areas outside of the 'city scale', enables us to understand the multifarious experiences of the digital city from those located just outside of it. This paper draws on interview and focus group research with a group of young women in Mumbra, a Muslim-majority locality just outside of Mumbai, in the Mumbai Metropolitan Region. Following the 1992-93 riots in Mumbai, which was fuelled by a growing wave of Hindu-nationalism taking an urban stronghold spearheaded by local political group the Shiv Sena, thousands of Muslim families relocated to Mumbra in search of safety. Today, Mumbra is known to be a 'blacklisted' area, referred to as 'India's largest Muslim ghetto' (Peer, 2016). Considering the urban-digital experiences of young women in Mumbra, this paper shows how the digital borders of Mumbai are overlaid onto its political geographies. For residents of Mumbra, this results in an exclusion from the digital life of the city. While the women I spoke with, as digital natives, aspired to take part in this digital life, new digital platform services – including ridehailing apps, food delivery services and other delivery services among others – stopped short of servicing Mumbra. In considering these experiences, we can learn more about who and where is included in the city's digital economy and futures when it comes to benefiting from 'the digital'.

## **Speaker 2:**

### **Digital gray space and urban coloniality: new struggles in Israel/Palestine**

**Prof. Oren Yiftachel\***

University College London

The paper examines the role of digitization in the 'gray spacing' of Israel/Palestine's main urban regions. It focuses on the colonial practice of house demolition and displacement aimed almost exclusively at indigenous Bedouin Arabs who are placed in 'gray space', suspended between inclusion and eviction, between criminality and neglect. State-backed spatial violence against Bedouins occurs mainly at the fringes of the country's main metropolitan regions.

The paper explores the difference that digitization makes to this decades long process. It shows that it has enabled the colonial state to tighten its grip on surveillance, data collection and bio-management of indigenous bodies, establishing 'gray spacing' and the framing of large indigenous groups in 'indefinite temporariness' and under conditions of displaceability. This has propelled the state to launch during the 2015-2020 an unprecedented campaign of house demolitions, during which numbers of demolitions have increased fivefold compared to the previous decade. This aspect illustrates the immense power of digital governance to deepen urban coloniality through 'technological' and 'market' oppressions, as noted by key scholars from the global southeast, such as Raquel Rolnik, Ananya Roy and Eyal Weizman.

However, at the same time, the research also shows that digital technologies, instruments and platforms have enabled indigenous people to survive in gray space and more effectively resist displacement. Following the work of scholars such as Nancy Odendaal, Ayona Datta and Gautam Bhan, it is argued that digitizing gray space has created new and effective 'cracks' for community networks which connect local, regional and global mobilization, alternative data flows, and political organizations, which have enabled communities to maintain their 'sumood' – the Palestinian practice of steadfastness against colonization, demolition and displacement. The paper elaborates briefly three cases where Bedouin survival on their lands has been reshaped through digital 'gray spacing' at the fringe of the Beersheba and Jerusalem metropolitan regions.

**Speaker 3:**

**Gendering the (not so) Smart City: Muslim Women, Claim-Making & Brokerage in India**

**Ayesha Ansari, Thomas Chambers\***

Oxford Brookes University

This ethnographic paper focuses on interactions between poor Muslim women, various intermediaries/brokers, and the Indian state. The paper illustrates the complexities of claim-making and the forms of subjugation/marginalisation Muslim women experience when attempting to access resources, documents or paperwork. Contrary, however, to many representations of Muslim women's engagements with the state, we also draw out agentive aspects as women hustle and negotiate to make claims and assert citizenship rights. Outcomes are variegated but also incorporate some women in brokerage roles, challenging assumptions regarding state/people mediation in India which foregrounds male brokers. The empirical detail is situated in a theoretical context incorporating gendered distinctions between shifting imaginaries of 'nation' and lived experiences of the 'everyday state'. In a context where 'nation' has been evoked and articulated as a feminine form – through evocations of mata (mother) – we show how shifts towards a masculine imaginary, symbolised within Hindu-nationalist discourses, impacts Muslim women's subjective experiences. We also illustrate that, whilst gendered imaginaries of 'the nation' are shifting, the 'everyday state' has long been experienced as a masculinised formation. Here we show how embodied involvements with the everyday state were constituted through gendered bureaucratic histories, spatial configurations, urban cosmologies and broader ideologies.

**Speaker 4:**

**The Materiality of Social Mobility in Small Town Himalaya**

**Dr. Rohit Negi\***

Ambedkar University Delhi

Scholars like Jonathan Rigg have invited researchers to turn attention to the increased decoupling of rural poverty and well-being from agriculture, and to the observed move to highly mobile and delocalized lives and livelihoods across the Global South. These shifts are not accidental by any means and draw on the historical work of development policy and capital. In this context, the Indian Himalayan state of Himachal Pradesh has been hailed as an exemplar: education is nearly universal, public healthcare is widely accessible, and poverty has declined sharply in the last three decades to one-third of national average. While there is undeniable though uneven social mobility across the region, what of its materiality? To paraphrase Sharad Chari, as subalterns accumulate capital, where and how is it fixed?

Thinking through this question open up new lines of inquiry around the emergent relations between the built environment, association lives and ecology within the larger canvas of state infrastructural projects and the uneven spread of capital beyond the metropolis. Drawing on ethnographic work in the settlements of Banjar and Bharmour in Himachal, I show that the growth small urban centres across the region is intricately linked to the story of rural capital. I argue that the urban process creates opportunities for the upwardly mobile but also create susceptibilities to novel risks, which need to be engaged with as policy and critical praxis turn to the small cities.

**Speaker 5:**

**Political Ecologies of Godavari Riverscape in 'Smart' Nashik City**

**Dr. Shilpa Dahake\***

Abohar Municipal Corporation and Indian Institute of Science Education and Research  
Mohali

Attempts to re-engineer the Godavari River to empower particular configurations of the socio-cultural, religious, political, and economic facets of Nashik city impose a series of infrastructure projects in the riverscape. People live with the river – (re)shaping each other – but sometimes, the rivers defy social control and transgress planned paths. Infrastructures allow societies to interact and engage with the river but do not necessarily align with the everyday ways of societal engagements. Derived from ethnography in Nashik, a tier II, religiously significant, and rapidly urbanizing city in the western Indian state of Maharashtra, this paper focuses on these moments when the assemblage of river and infrastructure produce friction and ruptures in the society.

The Godavari is undergoing unprecedented changes – like episodes of the spread of water weeds, algal bloom, drying, and flooding – emerging at the interstices of the people, ecologies, and infrastructure. These transformations are local as well as pieces of new planetary accounts that are markers of climate change and Anthropocene. Engaging with ecological uncertainties as feral ecologies encouraged by human-built infrastructure, I investigate how the histories of 'infrastructuring' the riverscape are invoked to shape the demand for 'smart(er)' riverfront development discourse. Taking the Kumbh Mela (an age-old Hindu pilgrimage festival) of 2015 and ecological uncertainties surging before and after the event as a threshold, I examine the processes through which people live with and make sense of the volatilities of the Godavari in Nashik. Here, the ecological uncertainties not only invoke the degrading river ecologies but a condition of novel ecosystems that engender new possibilities and imaginaries of the 'smart city' that have the agency to (re)produce the political subjectivities.

**Speaker 6:**

**Living with Smart Heritage in Varanasi**

**Anwasha Aditi\***

University College London

The heritage city of Varanasi has had a relatively stable urban form and fabric which attracts tourists and visitors from all around the world. The modern day witnesses a surge in the large-scale transformation of these historic sites through the concepts of urban conservation and preservation along with a touch of modernity and technology driven urbanism. The city of Varanasi is a living example of how urban development initiatives over a period of time have created non-reversible, permanent and everlasting socio-cultural impacts on the citizens as well as on the urban fabric of the city. Several questions revolve around 'what heritage needs to be preserved', 'moments in the planning manifestations in the city', 'what is present on ground and what is present on paper'. Modernising an ancient city like Varanasi surely comes with its own set of challenges, especially when it comes to the recent Smart City Mission which involves the use of technology to preserve its heritage, amalgamative culture while also providing the necessary infrastructure facilities to its residents. This paper intends to look at heritage as living history to identify the relevant shifts in the urban planning process for appreciating and understanding patchwork urbanism in historic cities.



## **KEYNOTE 4:**

### **Digital Placemaking: thinking about smart cities at a neighbourhood scale**

**Katharine Willis\***

University of Plymouth

The smart city promises a new model of integrated urban design bringing together people, urban spaces and smart technologies. But we need recognise that the smart city often excludes the very people, communities and place it claims to benefit. In this talk I will expand on how we need to think beyond digital infrastructures and consider how marginalised communities can reclaim smart technologies at a place -based level. This requires thinking about not just the digital but also the social infrastructure of smart cities; which encompasses urban community insights as well as a recognition of civic and third sector organisations, social enterprises, co-operatives, and places such as libraries, parks, and community centres. I will draw on the work of urbanist Jane Jacobs and consider it in a 'smart city' context. Jacobs was an urbanist who first highlighted the importance of the social life of the street and the neighbourhood and argued that we needed to understand, and understand thoroughly, specific places' (1993 (1961), p.410). This approach addresses a gap in the approaches to smart cities, that has failed to value the importance of urban community insights as well as a recognition of civic and third sector organisations, social enterprises, co-operatives, and places such as libraries and community centres (the 'third spaces' of Jacobs and Oldenberg). It introduces different models of placemaking and how people can interact and shape the city, that 'start with the neighbourhood and not with the technology' (McFarlane & Söderström, 2017, p.321). This presentation will argue that we need to engage 'smart' in local places, by leveraging of local resources, people and wisdom in placemaking and urban design practices (Willis & Aurigi, 2017) that meaningfully respond to local places and spaces.

**PAPER SESSION: REBUILDING SCALE**

**Speaker 1:**

**Scaling India's smart cities with ESRI and GIS data**

**Dr. Philip J Nicholson\***

University College London

**TBC**

## **Speaker 2:**

### **How do public investments shape AI governance?**

**Ana Brandusescu\***

McGill University

The artificial intelligence (AI) arms race is about cyberwarfare as much as it is about economic competition. It represents a roll out of technologies in a myriad of public sectors; a roll out that prioritizes innovation, productivity and value creation, which serve global corporate networks. This reflects the dominant language of innovation and entrepreneurship used in AI, as well as the political, economic, and ideological domination of the 'technological innovation' discourse. This brings into question the influence of private interests and private power over the innovation economy –and by extension, their role in the development of government AI public policy.

AI is heavily funded by multiple levels of government. In Canada, governments form part of a well-subsidized Canadian AI ecosystem, a network of private investors, startups, tech companies, public institutions, universities, and nonprofits. The federal government has invested over C\$2 billion across Canada. The Quebec government has invested C\$1.3 billion for the province. Meanwhile, in Montreal, over C\$2 billion has been announced in private investments.

I examine Canada's innovation economy through AI policy and funding. This includes semi-structured interviews with government officials, industry representatives, researchers, and human rights advocates from Canada's AI ecosystem, content analysis of public documents, and an analysis of federal government contracts, grants and contributions. Results reveal a lack of regulatory mechanisms to keep industry accountable to the public, an uneven geographic distribution of public investments in AI, and the formation of an AI nationalism.

**Speaker 3:**

**Soundscapes of smartness: rethinking tools for everyday participation**

**Dr. Sophie Hadfield-Hill\***

University of Birmingham

Our *Small smart cities* methodology included the use of a mobile app, *Map my Assets*, to enable participants to map, describe, remember and recount assets in their cities which were important to them. They were also asked to imagine how this place, object, person would feature in the city's vision and plan for smartness. This presentation, *Soundscapes of smartness* has three core aims. First, to situate our digital methodology in the wider discourse of citizen participation and digital inclusion which has become a core feature of the smart rhetoric. Second, we take the *Map my Assets* data from two of our field sites, Burlton Park in Jalandhar and the Goda Ghat in Nashik to offer insights into the situated realities of *soundscapes of smartness* and ask what this contributes to other methodological strands of the research. Third, the presentation will critically consider the use of digital tools for both research and wider civic engagement in the era of digital citizen participation – what are the ethical and practical considerations for understanding everyday assets and smart realities on the ground? What can soundscapes of the city offer to our everyday understanding of smartness and how can this be used to rethink tools for everyday participation?

## **Speaker 4:**

### **A smaller smart city: learning from ‘controversing Amersfoort’**

**Dr. Michiel de Lange\* & Corelia Baibarac-Duignan (UU), Julieta Matos Castaño & Anouk Geenen (UTwente)**

Utrecht University

Right in the cadastral center of the Netherlands lies the mid-sized Dutch city of Amersfoort, putting it quite literally at the heart of over a century-old efforts to datafy urban environments. Amersfoort’s smart city ambitions involve a careful balancing act. On the one hand, pushed by a comparatively large ICT-based corporate cluster there is the drive to innovate using new technologies for “cleaner, safer, and more comfortable” living, and the wish to scale up and become one of the trailblazers among the G40 (the 40 largest Dutch cities). On the other hand, the city in practice adopts a lean-back stance to testing and deploying smart technologies, and waits for the larger scale Dutch smart city lessons to ‘trickle down’. The ambivalence may be characterized as taking a ‘slow’ approach to smart city developments, where taking responsibility for safeguarding public values is more important than the relentless acceleration that comes with being a technological lead. This focus on public values in smart city developments is at the core of a research consortium between Amersfoort municipality, University of Twente, Utrecht University and various public and private partners, as part of the NWO funded project “Designing for Controversies in Responsible Smart Cities” (2018-2022). Through a series of research-by-design interventions, we investigate how people can be engaged on a larger scale in public debates about the future of their city through ‘controversing’ (Baibarac-Duignan & de Lange, forthcoming) Amersfoort’s smart city developments. Interventions include for instance datawalks, agonistic workshops, immersive digital installations, value change prototyping, and ethical dilemmas scenarios. In our contribution, we will share outcomes and insights from some of these workshops and prototypes, in order to address the issue of ‘scale’ on a variety of levels. In particular, we explore the entanglements between scaling as spatio-temporal, scale as a degree of civic engagement, and scale as an onto-political measure of responsible smart city development centering on public values.

**Speaker 5:**

**Tensions of scale: Decidim platform from the ground up**

**Paolo Cardullo\***

Universitat Oberta de Catalunya

Governance arrangements in 'actually existing' smart cities have presented many issues around the ethical uses of data, effective citizens empowerment, and technological adaptability to diverse scalar constructions from the neighbourhood to the entire metropolitan area. Their promises for citizens participation and democratic governance have showed a wider adoption gap and disaggregation.

In contrast, the multi-purpose platform Decidim is built on FOSS and on transparent and inclusive ethical principles. Decidim is the flagship initiative of Barcelona's acclaimed 'technological sovereignty' strategy to promote digital rights to citizens and construct a bottom-up socio-technological ecosystem that can confront the dominance of corporate software in city governance and living.

This paper explores the implementation of the civic platform in two institutional contexts: in the city of Barcelona, the recent participatory budget allocation (PAM) and the participatory budget for young people in NYC. We note Decidim's ability for scalar adaptation and to repurpose itself according to the initiative, from the local to the wider metropolitan area. Decidim optimal functioning is, however, conditioned to the rich socio-economic network and public endeavours put in place in order to maintain the platform and its ecosystem in a certain way. There is a scalar tension around the global developers' network and the territorial embeddedness of Decidim ecosystem and its institutional context.