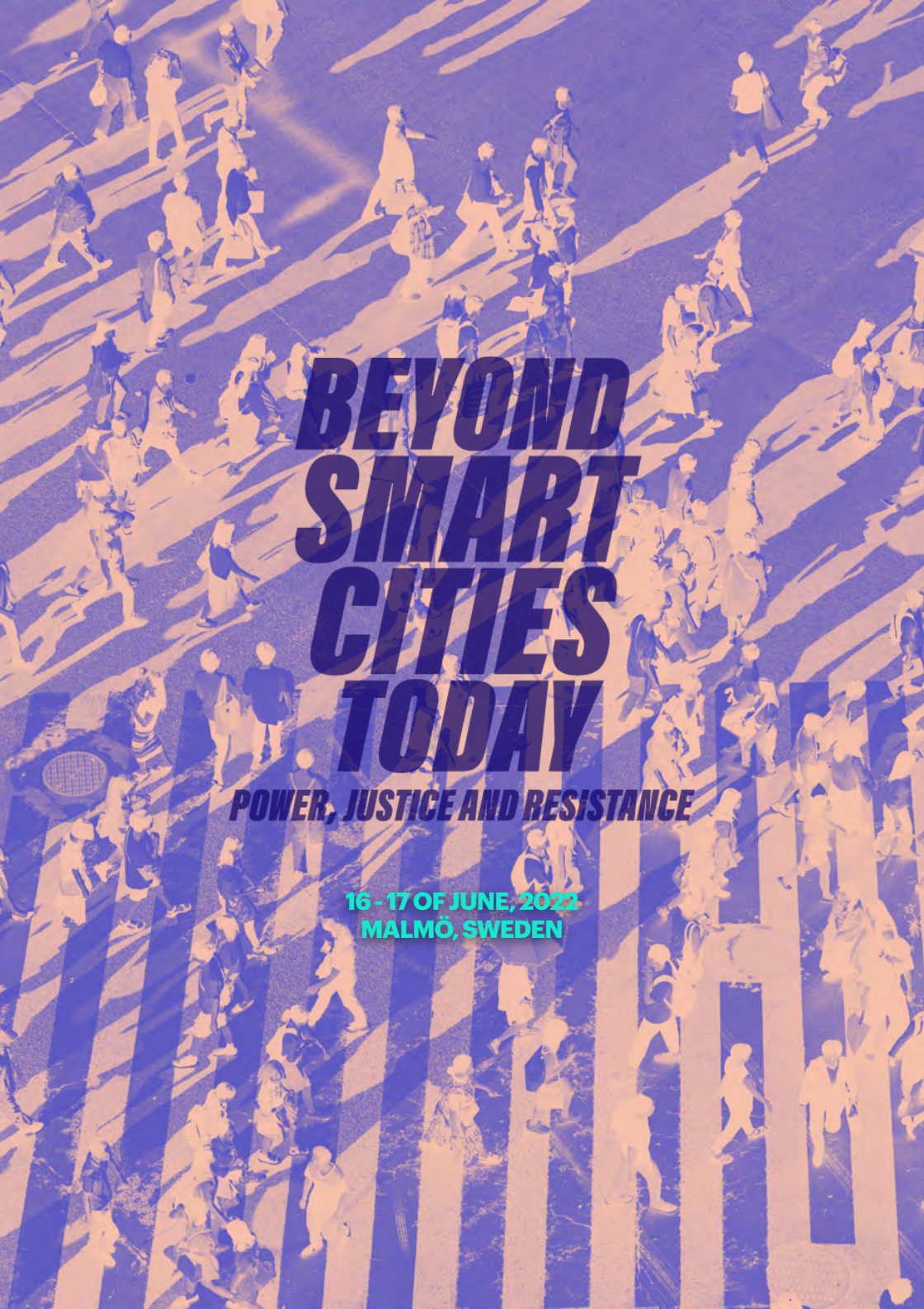
BEYOND
SMART
CITIES
TODAY
POWER, JUSTICE AND RESISTANCE
16 - 17 OF JUNE, 2022
MALMÖ, SWEDEN

A digital version of this program is available in the
Beyond Smart Cities Today website

www.beyondsmartcitiestoday.se

If you have any questions during the conference, you can contact one of our team members:

Adriana de la Pena: adriana.espinosa@mau.se
Carina Listerborn: carina.listerborn@mau.se
Maja de Neergaard: mlsdn@ruc.dk
Fredrik Torisson: fredrik.torisson@mau.se

For urgent matters, you can call to:
Adriana de la Pena +46 70 360 3183

MALMÖ UNIVERSITY

IUR

FORMAS

CONTENT

WELCOME

Dear Participants,

Welcome to the conference Beyond Smart Cities Today: Power Justice and Resistance.

The organizing committee is delighted to be able to host this conference in our city of Malmö with real life interactions. We are looking forward to two days of intense talks and sharing of ideas with participants from many parts of the world – it is a truly international conference.

We began to plan this conference after partaking in the Beyond Smart Cities Today organized by the LDE Centre for BOLD Cities in Rotterdam 2019. Then came the pandemic and we hesitated to plan yet another digital conference, but now (fingers crossed) we can meet for real. However, the pandemic is not gone and other troublesome clouds are appearing in our common sky. These contexts will of course not be neglected in the themes and discussions at the conference as we share concerns with people who are not able to travel or have the possibility to focus on thinking 'beyond' at this point in life.

The thrust of this conference is to strengthen the analyses around power relations, provide time and space to question the differences within smart cities, reflect on issues of justice and injustice, analyse inequalities through feminist and postcolonial lenses, and underline historical perspectives to understand social consequences of smart city initiatives. Beyond smart cities, there must be an opportunity for a more inclusive and fair trajectory of innovations.

Following the example of Rotterdam, this conference also wants to shed light on the role of municipalities and city officials. We, therefore, conclude this conference with a panel that aims to bridge academic discussions with the practice of the actual doings of smart cities. This panel is a result of the work with the project 'Smart Cities for City Officials' https://smartcitiesforcityofficials.com/. On the same topic, we also organized a field trip to Helsingborg H22 as an excursion the day before the opening of the conference.

We want to thank our funding bodies FORMAS, the Institute for Urban Research and Malmö University. Also, a big thank you to the City of Malmö for hosting a welcome mingle at Rådhuset [Town Hall] on the 15th of June.

During the conference we will get help from five master's students from the Master of Urban Studies of Malmö University; Nathan Ó Néill, Dorina Topci, Marie Urfels, Paulina Wedepohl and Xiaotong Zheng. A big thank you to all of you. Special thank you also to Adriana de la Peña Espinosa who has been the main organizer of this conference, with the support from the organizing committee (Claudia Fonseca, Carina Listerborn, Maja de Neergaard and Fredrik Torisson) and the Event Service of Malmö University. Also thanks to Jiska Engelbert at the Erasmus University Rotterdam for support in the process.

If any institution wants to organize a conference within this series of Beyond Smart Cities Today, we will be happy to hand over the baton and share our experience.

Carina Listerborn,
on behalf of the organizing committee

ORGANISING TEAM

Carina Listerborn is Professor in Urban Planning at the Department of Urban Studies, at Malmö University. She holds a PhD from Chalmers University on urban safety discourses from a feminist perspective. Her research fields are urban social geography, critical urban and housing theory, and feminist urban studies. She has previously done research on urban conflicts, violence and uprisings, neo-liberal planning, and housing inequalities. Her most recent research focuses on intersectional perspectives on smart housing.

Claudia Fonseca is a postcolonial and feminist urban scholar with expertise in Latin America. Her main research interest is studying the way urbanisation unfolds and how global capitalism actually happens on the ground – how both shape everyday life – in the inconspicuous places of the global South. She is currently working on the project *Smart Cities in the Global South: Contributing to Cosmopolitan Urban Studies.*

Maja de Neergaard is Associate Professor at Roskilde University, Denmark. Her main research areas research are urban studies, smart cities and smart housing, and social theory of human/environment relations.

Fredrik Torisson is a postdoctoral researcher in Urban Studies at Malmö University. His research can be placed within the fields of architectural and urban historiography and architectural theory. Research interests include critical readings of architecture and the built environment, architectural and urban historiography and different modes of envisioning desirable futures. Currently, he is investigating the smart city and the smart home from a historical perspective.

Adriana de la Peña works as a research assistant at the Institute for Urban Studies at Malmö University. Her research interest is around the discourses that drive digitalisation processes both in the Global North and the Global South.

PROGRAM

THURSDAY JUNE, 16th	
08:00 – Ongoing until 12:00	Registration and coffe
8:45 – 09:00	Conference opening
09:00 – 10:30 (Keynote session 1) *Theme:* Contextualising smart city development *Chair: Carina Listerborn*	09:00 – 09:30 Jennifer Clark
	09:30 – 9:35 Questions
	09:35 – 10:05 Andres Luque-Ayala (Digital presentation)
	10:05 – 10:30 Questions and discussions
10:30 – 10:45	Break (coffee/tea)
10:45 – 12:30	Parallel Sessions 1 (5 sessions. See rooms in detailed program)
12:30– 13:45	LUNCH
13:45 – 15:15 (Keynote session 2) Theme: Data feminism and feminist approaches *Chair: Maja de Neergaard*	13:45 – 14:15 Lauren Klein
	14:15 – 14:20 Questions
	14:20 – 14:50 Sophia Maalsen
	14:50 – 15:15 Questions and discussions
15:15 – 15:30	Break (coffee/tea)
15:30 – 17:15	Parallel Sessions 2 (4 sessions. See rooms in detailed program)
17:15- 18:00	Pre-dinner mingle
18:00 – 20:00	Dinner

FRIDAY JUNE, 17th	
8:00 – 8:45	Registration and coffe
8:45 – 9:00	Opening second day
9:00 – 10:30 (Keynote session 3) Theme: Power and hegemony in the smart city *Chair: Lorena Melgaco*	09:00 – 09:30 Nancy Odendaal
	09:30 – 09:35 Questions
	09:35 – 10:05 Jathan Sadowski
	10:05 - 10:30 Questions and discussions
10:30 – 10:45	Break (coffee/tea)
10:45 – 12:30	Parallel Sessions 3 (4 sessions. See rooms in detailed program)
12:30 – 13:45	LUNCH
13:45 – 15:15 (Keynote session 4) Theme: History and futures *Chair: Fredrik Torisson*	13:45 – 14:15 Orit Halpern
	14:15 - 14:20 Questions
	14:20 – 14:50 Germaine Halegoua
	14:50 – 15:15 Questions and discussions
15:15– 15:30	Break (coffee/tea)
15:30 – 17:00 *Theme: Smart Cities for City Officials*	15:30 – 15:40. Guy Baeten: "Smart Cities for City Officials".
	15:40 – 16:10 Keynote Rob Kitchin
	16:10 – 17:00 Conversation with City Officials
17:00 – 17:10	Conference closure

PRE-CONFERENCE ACTIVITIES

Tour to Helsingborg- H22 on June 15th, 2022

The City of Helsingborg has prepared a tour for the Beyond Smart Cities Today conference.

" H22 City Expo – is a 35-day international event to showcase, test, and co-create smart solutions that improve life in the city. With a focus on long-term innovation work aimed at lasting change, for example, through circular solutions, sustainable urban development, and smart technology, you will be able to experience and explore innovations that shape the smart and sustainable city of the future."

City of Helsingborg

09:45	The bus leaves at 10:00am from Niagara - Malmö University. Meeting point at the atrium of the building.
10:00	Transfer to Helsingborg City Center(by bus)
11:00	Innovation Exhibition
12:15	Lunch
13:30	Transfer to Drottningshög (by bus)
13:45	"Co-living: live in 11 square meters, but share 200"
	Creating a place called home.
15:45	Transfer to Oceanhamnen (Walking)
16:00	People´s walk- a laneway of equality in Oceanhamnen
17:30	Transfer to Malmö (Niagara)

For a detailed agenda of the tour, follow the QR code.

NOTE: Lunch is not included in the tour.

Reception in Rådhuset - Wednesday, June 15th 2022

To welcome the participants of the conference and foster conversations between city officials and researchers, the City of Malmö is hosting a reception in Rådhustet (Malmö City Hall) for Beyond Smart Cities Today. The event will be from 18:30 to 20:00.

NOTES: The reception is organised and paid for by the City of Malmö. Appetisers and drinks will be offered.

For those who will attend the H22 tour, the bus will arrive at the event directly from Helsingborg at 18:30.

PRACTICAL INFORMATION

CONFERENCE VENUE- The conference will be at Malmö University- Niagara, located in Nordenskiöldsgatan 1. The QR code "Malmö City Map" shows the locations of Niagara, Malmö Central Station and Malmö Rådhuset (City Hall). Walking routes are marked.

Malmö City Map

AUDITORIUM - The keynotes will be in Niagara, Auditorium-C (NI: C0E11).

SESSION ROOMS- The program indicates the room for each session. During the conference, the organising group will be guiding participants to the session rooms. The QR code "Niagara building map", takes you to an interactive map where you can search for specific rooms.

Niagara Building Map

INTERNET - You are welcome to use MAUGUEST Wi-Fi. Follow the QR to get instructions on how to connect.

FOOD- Lunch on both Thursday and Friday, and dinner on Thursday, will be served in *Niagara Restaurant,* located on the ground floor. You will be asked for the meal tickets you received in your welcome package. All meals will have vegan and vegetarian options.

MAUGUEST Wi-Fi

COFFEE- Coffee breaks will be served in the Atrium of Niagara.

EMERGENCY- For police, fire service or ambulance, dial 112.

TOURISM- Malmö is attractive and dynamic. Its mix of old and new and its diverse population creates an eclectic city worth enjoying. For inspiration on what to do and see in Malmö, follow the QR code "All roads lead to Malmö".

All Roads Leads to Malmö

KEYNOTES

Jennifer Clark
Section Head
Professor, City and Regional Planning
Ohio State University

The City is Not the Customer: Confronting Uneven Innovation

After a decade of pilot projects and flashy demonstrations, it's still not clear whether smart city technologies can actually solve or even mitigate the challenges cities face. A lot of progress on our most pressing urban issues—such as broadband access, affordable housing, or public transport—could come from better policies and more funding. These problems don't necessarily require new technology.

What is clear is that technology companies are increasingly taking on administrative and infrastructure responsibilities that governments have long fulfilled. If smart cities are to avoid exacerbating urban inequalities, we must understand where these projects will create new opportunities and problems, and who may lose out as a result. And that starts by taking a hard look at how cities have fared so far.

Andrés Luque-Ayala
Associate Professor, Geography
Department Durham University

Computing Urbanity: How Politics Change as We Move from Digitally Knowing to Digitally Making the City

This presentation points to the need to question the ontological and epistemological implications of what is now a pervasive computational urbanism. It argues that in order to understand how digital technologies transform the city it is necessary to look at the underlying computational logics involved. By looking at digital processes of operationalization, datafication, sensing, mapping, and prediction, this work subjects the contemporary computational city to critical scrutiny. We argue that these computational logics aren't simply ways of knowing the city, but rather the making of a particular—and politically charged—urbanity.

The presentation discusses how technical forms of urban knowledge, control, and calculation are never ideologically neutral, foregrounding the profound political, epistemological, and ontological consequences attached to the adoption of computational systems as a privileged template for future urbanism. In such computational city, through the close coupling of crises and the everyday, political debates take a backseat to an operational rebundling aimed at guaranteeing urban flows. With constant information as the new nature of the city, the ontological push of the computational city is so strong that it risks becoming both the ends as well as the means for governing the city. Forcing this emerging digital city to remake itself in the image of its own narrow epistemology, the computational city gives precedence to efficiency and circulatory management over agonistic politics.

Lauren Klein

Associate Professor, English and Quantitative Theory and Methods

Emory University

Data Feminism in Action

What is feminist data science? How is feminist thinking being incorporated into smart cities research and other data-driven work? And how are scholars in the humanities and social sciences bringing together data science and feminist theory in their research more broadly?

Drawing from her recent book, Data Feminism, co-authored with Catherine D'Ignazio, Klein will present a set of principles for doing data science that are informed by decades of intersectional feminist activism and critical thought. To illustrate these principles, Klein will discuss a range of recent research projects, including some of her own. Taken together, these examples will demonstrate how feminist thinking can be operationalized into more ethical, more intentional, and more capacious data practices, in smart cities research and beyond.

Sophia Maalsen
Senior Lecturer
Urbanism, University of Sydney

Hacking as a minor approach that prefigures future cities: feminist approaches beyond the hegemony of the smart city

Inspired by recent work that has advanced minor approaches to smart urbanism (Leszczynski 2020; Katz 1996) this paper positions "urban hacks" (Maalsen 2021) as fruitful counter-narratives to hegemonic smart city discourses. Situated in a context of discomfort towards the limitations of major theories to account for the different experiences of the actually existing smart city, mixed with an overwhelming feeling that significant structural change has not arrived yet (and may not in the near future) despite major critiques, the hack is positioned as an "imperfect but better than" intervention to urban problems. Specifically, this paper addresses how housing affordability crises are prompting both public and private sectors to "hack" housing. I advance hacking as a form of prefigurative politics, whose ruptures show us alternative possibilities for smart cities, and whose speculative nature can become a mechanism for change.

If we are to move "beyond the smart city", as the conference title suggests, then it is necessary to open ourselves (both academics and policy makers) to other ways of understanding the smart city, ways which, in their difference, show us alternative possibilities for the city.

Katz, C (1996) Towards minor theory. Environment and Planning D: Society and Space 14(4): 487–499.

Leszczynski, A. (2020) 'Glitchy vignettes of platform urbanism', Environment and Planning D: Society and Space, 38(2), pp. 189–208.

Maalsen, S. (2021) 'The hack: What it is and why it matters to urban studies', Urban Studies

Nancy Odendaal
Associate Professor
University of Cape Town

'Moving at the speed of trust' -
Data strategies of two Civil Society Organisations in Cape Town, South Africa

Whilst the social and spatial divides within South African cities cannot be denied, the country's Constitution nevertheless enables free speech and popular protest aimed at addressing inequalities. Two civil society organisations, Ndifuna Ukwazi and Cape Town Together (CTT), use a range of digital media to mobilise and connect marginalized communities. The former focuses mainly on shelter whilst CTT emerged as a response to extreme lockdown measures during the first months of Covid-19. The presentation will focus on the use of storytelling as a form of activism, harnessing technology to represent experiential and qualitative aspects of urban life, to alter dominant urban discourses. Part of this sensibility is captured by CTT in their approach to 'move at the speed of trust' in enabling neighbourhood mobilisation in addressing livelihoods, through community action networks. An emphasis on trust building, connection and co-creation of livelihood solutions to livelihood issues, runs contrary to the state's emphasis on evidence-based decision making and a temporally linear and centralized approach to service delivery.

Jathan Sadowski
Research Fellow,
Emerging Technologies Research Lab
Monash University

"State-as-a-Platform" – Sovereignty and Capital in Smart Governance.

I offer a critical analyse of the political economic dynamics still unfolding through different combinations of power, technology and capital in cities and states. Rather than simply spreading via one static model, the practices and purposes of smart governance continue to evolve in important ways. I outline three concurrent phases in this development over the last 15 years, each one based on technology companies seeking to claim further power and authority over public services: managerial oversight, functional operation, and sovereign ownership. I don't use the term "sovereign" lightly. But rather as a way of provoking crucial questions about the shifting nature of state sovereignty, and the intensification of corporate sovereignty, in an era of smart governance. The model gaining influence now goes beyond the public-private partnerships that have become standard fare in the last half-century of neoliberal austerity and privatisation. It is, instead, explicitly about reconfiguring the public into the private, the state into a platform. It is a techno-political philosophy that seems to take seriously the premise: "What if instead of a government we had Amazon Web Services?"

Orit Halpern
Associate Professor,
Sociology and Anthropology

The Smartness Mandate: Theorizing our Nervous Present

The COVID 19 pandemic has seemingly naturalized the relationship between computation and human survival. Digital systems sustain our supply chains, labor, vaccine development, public health, and virtually every manner of social life. Nowhere has this link become more powerful then at the intersection of statistics, ecology, artificial intelligence and finance. This paper links a genealogy of neural nets and ubiquitous computing arising from histories of ecology, psychology, and finance to contemporary efforts to model and gamify markets, populations, and networks. I argue that the idea of a networked, population based, ecological cognition unifies neo-liberal governance and conceptions of cognition and intelligence through the figure of the neuron; what I label the "smartness mandate". This imaginary has political and ethical implications for our present underpinning contemporary reactionary politics and increased volatility and precarity (for many) in the economy.

Germaine Halegoua

John D. Evans Development Professor & Associate Professor of Communication and Media

University of Michigan

Re-placeing the Smart City

Smart cities project particular imaginaries and aspirations of urban transformation. The most prevalent visions of "smart" urban futures are selective in who they serve, how they are generated, and what types of data, knowledge, and expertise are consulted to interpret and reproduce the city. Too often, these visions lose sight of the work people do to make sense of their environments, their agency in producing a sense of belonging and equity, their experiences of difference and power, and how the urban futures promised in smart city development may conflict with the futures strived for and desired on the ground. Shared conceptions across "actually existing" and emerging smart cities reveal limited understandings of the city as an inhabited place as well as several missed opportunities to become more critically attuned to the urban places we create. The smart city, as it currently stands, needs to be re-placed. What methods do we already have, or can we forge, to move beyond the smart city or see it anew?

SESSIONS PROGRAM

Thursday, June, 16th 2022

Parallel sessions 1

Session 1.1
Theme: A postcolonial understanding of smart cities
Date: Thursday, June, 16th
Time: 10:45- 12:30
Room: NI: A0306
Chair: Nancy Odendaal

Time	Author (s)	Paper title
10:45	Session Introduction - Nancy Odendaal	
10:50	Su Su Myat	A Southern gaze on Geneva's smart city initiatives.
11:10	Lorena Melgaço, Camila Freitas de Souza	On being at the margins: the development of (social) smart cities in Brazil.
11:30	Ezgi Aktuğ, Jiska Engelbert, Mariana Fried, Isabel Awad	The "smart gospel" in geo-political context: Smart power in Dutch-Turkish relation.
11:50	Mariana Fried, Jiska Engelbert, Isabel Awad	A different kind of smart: Provincializing "the" smart city discourse.
12:10	Tomas Donadio	The right to the smart city in Southern Europe? Policy mobility and neoliberalisation in a case study on Lisbon.

Session 1.2
Theme: Cities mediated through platforms
Date: Thursday, June, 16th
Time: 10:45- 12:30
Room: NI: A0307
Chair: Emil Pull

Time	Author(s)	Paper
10:45	Session Introduction - Emil Pull	
10:50	Khaliq Parkar	Ungoverned Datafication: Data Policies, Practices and Platforms in India's Urban Governance.
11:10	Nicolás Palacios	"We organize in under 10 minutes": digital vignettes on platform territorialisation and labour tactics of resistance.
11:30	Paolo Cardullo, Ramon Ribera-Fumaz, Paco Gonzalez-Gil	Decidim platform, worlding or provincializing?
11:50	Ilia Antenucci, Armin Beverungen	Amazon's Urban Speculations.
12:10	David Murakami Wood	Platform Cities: Something worse beyond Smart Cities?

Session1.3
Theme: New ways to understand the smart cities
Date: Thursday, June, 16th
Time: 10:45- 12:30
Room: NI: A0406
Chair: Rob Kitchin

Time	Author(s)	Paper
10:45	Session introduction - Rob Kitchin	
10:50	Nick Förster, Gerhard Schubert, Frank Petzold	Making Models - Prototyping Critical Perspectives on Urban Simulation.
11:10	Kai Reaver	Case Study on Design of the Sami Pavilion through Mixed Reality.
11:30	Persis Taraporevala, Matt Birkinshaw	The life and death of Indian municipal bodies on social media.
11:50	Kristine Samson, Jonas Fritsch	Affective methodologies and more-than-human encounters – livability and life quality beyond the smart .
12:10	Anders Riel Müller, Jens Kaae Fisker	Towards the Streetsmart city: The imagined average, experts and smart city technologies.

Session 1.4
Theme: Alternative approaches- Smart social action
Date: Thursday, June, 16th
Time: 10:45- 12:30
Room: NI: A0407
Chair: Orit Halpern

Time	Author(s)	Paper
10:45	Session introduction - Orit Halpern	
10:50	Niloufar Vadiati	A conceptual framework for grassroots digital urbanism.
11:10	Aditi Singh	Smart and sustainable for whom? Critically examining the inclusion of smart citizens and sustainability goals in New Delhi's smart city project.
11:30	Byron Miller	Social Action Coordination in Calgary's "Smart" City Initiatives.
11:50	Andrew Stokols	An Insurgent Smart City: How the Hong Kong protests created an alternative imaginary of the smart city.
12:10	Rama Kummitha	The Governance of Smart cities: A case for citizen engagement

Session 1.5
Theme: Smart practices in urban settings
Date: Thursday, June, 16th
Time: 10:45- 12:30
Room: NI: A04011
Chair: Fredrik Torisson

Time	Author(s)	Paper
10:45	Session introduction - Fredrik Torisson	
10:50	Karin Edberg	The (im-)mobile e-bike: infrastructural components of an emerging micromobility practice.
11:10	Desirée Enlund, Katherine Harrison, Rasmus Ringdahl, Ahmet Börütecene Jonas Löwgren, Vangelis Angelakis	The role of sensors in the production of smart city spaces.
11:30	Anna-Lena Theus	Situated experiences: Smart streetlighting systems and their differential impact on residents.
11:50	Alva Zalar	Support for movement in the smart city: E-scooters as a contested mode of 'sustainable' mobility.
12:10	Ingrid Svetoft, Märit Jansson	Justice and Equality for Children in Urban Planning- Democratic Tools for Children's Particiption.

Parallel sessions 2

Session 2.1
Theme: The politics of smart infrastructure
Date: Thursday, June, 16th
Time: 15:30- 17:15
Room: NI: A0306
Chair: Marwa Dabaieh

Time	Author(s)	Paper
15:30	Session introduction - Marwa Dabaieh	
15:35	Susana Neves Alves	Digital Water Infrastructures in small cities in Mozambique.
15:55	Caroline Wigren-Kristoferson, Kenneth Mølbjerg Jørgensen, Maria Aggestam	Policy making as part of everyday life – a story about resistance.
16:15	Fabio Lapaolo	The System of Autono-mobility: On the Logic and Logistics of Machine Perception and Cognition.
16:35	Dalia Mukhtar-Landgren	Depoliticization and politicization in smart city pilots.

Session 2.2
Theme: Smart housing
Date: Thursday, June, 16th
Time: 15:30- 17:15
Room: NI: A0307
Chair: Sophia Maalsen

Time	Author(s)	Paper
15:30	Session introduction - Sophia Maalsen	
15:35	Helena Löfgren, Anne Kaun	Sensing security: when public housing companies go smart.
15:55	Ida Sandström	Pairing technologies', urban matchmaking, and the access to housing.
16:15	Filippo Borreani	Investigating the intersection between class, spatial justice and smart-and-green residential project. The case of Cascina Merlata/Up Town Smart District in Milan.
16:35	Jelke Bosma	Governance beyond regulation: Platform urbanism, the entrepreneurial state, and the limits of platform regulation.

Session 2.3
Theme: Power and data
Date: Thursday, June, 16th
Time: 15:30- 17:15
Room: NI: A0406
Chair: Lauren Klein

Time	Author(s)	Paper
15:30	Session introduction - Lauren Klein	
15:35	Lena Unger	Notions of Digital Sovereignty and Indications for Urban Futures.
15:55	Sage Cammers-Goodwin	Power to the People: The Trials of "Empowerment" through Data Access.
16:15	Carl Chineme Okafor	The demand-side of datafication in smart cities: what data are seen to really matter?
16:35	Alexander Wulff	Quantification and control in the city: the long historical roots of the Smart City.
16:55	Christoph Fink, Elias Willberg, Tuuli Toivonen	Can big data support urban planning? On the challenge of representation.

Session 2.4
Theme: Placemaking for smart
Date: Thursday, June, 16th
Time: 15:30- 17:15
Room: NI: A0407
Chair: Germaine Halegoua

Time	Author(s)	Paper
15:30	Session introduction - Lauren Klein	
15:35	Maciej Główczyński	Place experience dimensions in Google online reviews - attributes, practices and atmosphere.
15:55	Ana Pastor, Marc Fuster Uguet	The dichotomy of urban destinations in tourism and smart city governance: An analysis of stakeholders' approaches in Barcelona.
16:15	Josep Ivars-Baidal, Antonio P. Russo.	Tourism and social exclusion: Towards a smart tourism city governance?
16:35	Valentina Carraro	Start-up tourism and the Israeli colonial project.
16:55	Hannah Devine-Wright.	Smart engagement: people powering commerce or power to the people?

Friday, June, 17th 2022

Parallel sessions 3

Session 3.1
Theme: Technologies of surveillance and control
Date: Friday, June, 17th
Time: 10:45 – 12:30
Room: NI: A0307
Chair: Jathan Sadowski

Time	Author(s)	Paper
10:45	Session introduction - Jathan Sadowski	
10:50	Azadeh Akbari	Automation of urban policing: Spatial|Data Justice and women's resistance against compulsory Hijab in Iran.
11:10	Taşkın Dirsehan, Liesbet van Zoonen	How The COVID Crisis Stimulated the Uptake of Smart Technologies in Cities? A Systematic Literature Review.
11:30	Regev Nathansohn, Lihi Lahat	Mixed and Smart Cities: The Challenges and Opportunities of Digital Applications.
11:50	Alina Wernick, Gabriel Udoh, Emeline Banzuzi	The safeguards for building safe and just smart cities - A comparison between Finland and Nigeria.
12:10	Tegg Westbrook	The Scales and Complexities of Technology-Enabled Abuse: Towards a theory of 'abuse in depth'.

Session 3.2
Theme: Resistance and Smart Cities From Below
Date: Friday, June, 17th
Time: 10:45 – 12:30
Room: NI: A0406
Chair: Lorena Melgaço

Time	Author(s)	Paper
10:45	Session introduction - Lorena Melgaço	
10:50	Elizabeth Calderón Lüning	Digital Sovereignty on the local scale. Building unexpected alliances towards democratic self-determination.
11:10	Stephanie Garaglia	Smart cities and video surveillance: organized resistance by city dwellers.
11:30	Kristiane Marie Fjaer Lindland	Struggle, grassroot movements and conflict as fostering dynamics for smart city development.
11:50	Maja-Lee Voigt	403 Access Forbidden or: A Backend of One's Own. Hacking Spaces Toward a Cyber_Feminist_City.

Session 3.3
Theme: The State as Driver of the Smart City Discourse
Date: Friday, June, 17th
Time: 10:45 – 12:30
Room: NI: A0407
Chair: Jennifer Clark

Times lot	**Author(s)**	**Paper**
10:45	Session introduction - Jennifer Clark	
10:50	Jung Won Sonn, Jaemin Song, Chanho Kim, Myungje Woo	Institutional Memory of Developmentalism: An Evolutionary Economic Interpretation of Smart City Export Policies in South Korea
11:10	Marie-Hélène Zerah, Gaurav Mittal, Barathi Nakkeeran	Variegated Pathways towards Smart Urbanism: Urban Data Regimes under the Smart Cities Mission in India.
11:30	Yawei Zhao	In the shadow of Smart City: discourse, practice, and the contested promise of urban technologies
11:50	Umar Al Faruq	Smart Spectacular Urbanism of Asian New Capital Cities
12:10	Marwa Dabaieh	Smart cities for 'the privileged few'

Session 3:4
Theme: Governing Challenges of New Technologies
Date: Friday, June, 17th
Time: 10:45 – 12:30
Room: NI: A0411
Chair: Guy Baeten

Time	Author(s)	Paper
10:45	Session introduction - Guy Baeten	
10:50	Teresa González Gómez, José Andrés Domínguez Gómez	Urban Public Spaces: A bottom-up process for systematization of indicators for their governance and management.
11:10	Hannah Holmes, Richmond Juvenile Ehwi, Gemma Burgess	Vertical Selection: How dynamics of urban governance shape smart cities
11:30	Martijn de Waal, Gabrielle Ferri, Inte Gloerich, John Vines, Chris Elsden.	The City as a Licence
11:50	Emil Pull	Blockchain Urbanism- The trusted Smart City?

ABSTRACTS

Session 1.1
A Postcolonial Understanding of Smart Cities

A Southern gaze on Geneva's smart city initiatives-

Su Su Myat - University of Lausanne

This paper represents an understanding of the politics of smart urbanism in Geneva, Switzerland through a southern gaze. Drawing upon a postcolonial theoretical framework and using a reflective analysis approach, I am looking at the politics of smart city making processes in Geneva. I am proposing this approach based on urban theory developed in the global south and my own perspectives and experiences as someone who lived and worked in urban Myanmar. Taking the smart city initiatives of Geneva as an entry point, the objectives of this paper are first to contribute to postcolonial urban studies by expanding its theoretical and conceptual approach on the smart city cases using a southern gaze approach. The second is, as I draw on my own empirical work, to provide a case study of a European smart city to enrich the contemporary literature with a case from a relatively little studied locality. Looking at how smart city initiatives have been emerging and how they are differently shaped by successive urban governments provides the critical understanding on politics in this city, where of smart city initiatives are not driven by a centralized, national agenda, unlike in the case of Myanmar, my own country, for instance. However, the shift from the 'Smart Canton' initative (a techno-centric one) to the 'Smart Geneva' initiative (a participatory and non-techno-centric) shows the local government's power and role in shaping the smart urbanism in different ways.

On being at the margins: the development of (social) smart cities in Brazil

Lorena Melgaço - Lund University
Camila Freitas de Souza- Lund University

Critical approaches to the smart city have often highlighted how existing views and projects continuously underplay the role of the social in the making of the smart city. One critical aspect is how projects often target and serve the elites, thus furthering urban social inequalities. Indeed, the question of "whose right to the (smart) city" (Willis, 2018) should not be taken lightly. However, what happens when the poor become the focus of smart cities produced by large corporations?

In this paper, we reflect on an ongoing project in Brazil that has been nationally presented by the private sector, the media, and local governments as a "social smart city." This approach seems rather innovative – as multinational corporations build entire neighbourhoods from the ground under the argument of providing social and technological inclusion for the urban poor. We depart from the inhabitants' everyday life experiences to argue that the much less futuristic (and technologic) Brazilian social smart cities further already existing processes of marginalisation and land speculation, providing new mechanisms for the extractive urbanism phenomenon and representing a show of the private sector's power in the country.

The "smart gospel" in geo-political context: Smart power in Dutch-Turkish relation

Ezgi Aktuğ- Erasmus University Rotterdam
Jiska Engelbert - Erasmus University Rotterdam
Mariana Fried- Erasmus University Rotterdam
Isabel Awad- Erasmus University Rotterdam

"You might wonder why we, the Consulate General of the Netherlands in İstanbul, show such an interest to initiate this study" reads the foreword of the 2020 report Smart and Green Mobility in İstanbul commissioned by the Netherlands Consulate, as part of the Public-Private Partnership program of the Netherlands Enterprise Agency. Wondering about the interests behind the Netherlands-İstanbul "collaboration" is, indeed, the starting point of this paper. We connect the analysis of semiotic practices around "smartness" with complex networks of economic, cultural and (geo-)political interests. Our analysis points to the important role of semiotic conventions and generic expectations of diplomacy discourse. We find that engaging with and appropriating this discourse enables a wide range of interests and stakeholders to converge in and over smartness. It allows the Netherlands to be imagined as the European pioneer of historical and de-politicized cleverness, while firmly writing (progressive) politics into the local—and anti-Erdogan—government of Istanbul. As top-down and (neo-)colonial as this diplomatic "smart gospel" may thus initially appear, it crucially enables local political agency.

Our case calls for taking more serious (theoretical) stock of why smartness travels so well across time and space, and of how apparently coherent, neoliberal visions for smartness may be very suitable for local appropriation and re-politicization, particularly in and across (geo-) politically volatile contexts. We make a first attempt

at such a theoretical horizon of "smart power" by going back to Gramscian readings of hegemony in (British) Cultural Studies."

A different kind of smart: Provincializing "the" smart city discourse

Mariana Fried- Erasmus University Rotterdam
Jiska Engelbert- Erasmus University Rotterdam
Isabel Awad- Erasmus University Rotterdam

As this conference's CFP illustrates, scholarship increasingly calls for methodological approaches to identify the localized forms smart cities take and how they adjust "to the local material, legal, spatial and social context". Although there is growing awareness of how local socio-material orders shape the implementation of smart initiatives (Bulkeley et al, 2016; Houston et al,2019) and of the crucial role of discourse in such initiatives (Vanolo, 2016, Sadowski & Bendor, 2019), little attention continues to be given to how local factors relate to differing ways of giving meaning to 'smartness'. Instead, a uniform source discourse of smartness is suggested, one that invariably secures the corporate values and economic interests of "Silicon Valley" and that, given its persuasiveness, travels seamlessly.

This paper argues that moving beyond universalist and determinist understandings of smart city discourse is a crucial step in provincializing the smart city. It adopts an ethnographic approach to demonstrate and illustrate how smart city discourse speaks from and about different contexts, actors, interests, and political structures. Beyond the social (corporate, governmental) formations producing discourse, we attend to the people behind it, "the practices they use, when they use them, where they come from" (Blommaert, 1999) while following discursive practices "across platforms and offline sites" (Postill & Pink,2012). We observe how smartness is discursively

shaped in two (Global South and North) cities which lack paradigmatic status, revealing the different invoked actors (mayors occupying distinct roles), the association of smartness with old images of each city, chosen genres, and imagined audiences."

The right to the smart city in Southern Europe? Policy mobility and neoliberalisation in a case study on Lisbon.

Tomas Donadio- Universidade de Lisboa

Within critical smart city research, opposed paradigms are observed concerning processes, expected outcomes and technology approach. While some scholars depict a supposed paradigm transition – from an entrepreneur and technocratic to a humanistic and citizen-centred version, others defend that change needs to go beyond, proclaiming an alternative transformation of the smart city, supported by the Lefebvre's political argument of 'the right to the city'. Exploring policy mobilities in a Southern European city, this case study contributes with critical discourse analysis using data collected in a documental analysis of policy papers and interviews with key informants – politics, policymakers, activists, academics, and businesspersons. Amidst an expansion of the smart city discourse, Lisbon is influenced by multi-scalar contexts, neoliberalisation policies and austerity politics. Despite power alternates, the municipality advances the smart agenda, mainly within the objective of city competitiveness and economic growth, for instance, by promoting open data initiatives directed to startup investment. Recently, the national government is following a similar pathway via the Smart City National Strategy, which corroborates the local development model. Notwithstanding, at the individual level, traces of alternative transformation are observed in key informants perspectives. Noticeably, these viewpoints are diverse and marked

by their agency, nevertheless, elements of social justice, reduced inequalities and social inclusion are sought and desired. To avoid further uneven geographical development and the expansion of already existing asymmetries, I suggest local policymakers pursue specific inspirations which engage with the notion of 'the right to the smart city and recast Lisbon's smart agenda.

Session 1.2
Cities Mediated Through Platforms

Ungoverned Datafication: Data Policies, Practices and Platforms in India's Urban Governance

Khaliq Parkar- CESSMA, University of Paris

India's Smart Cities Mission (2015) is a federal program to revitalize governance in 100 cities through technological interventions. As sensors, platforms, and algorithm-driven solutions are implemented in these cities, we see data being collected, aggregated, networked and shared between municipal agencies, but also with commercial firms that are involved in deployment and implementation of projects under the program. In the absence of a central data-protection or regulation laws, guidelines and industry practices determine how this data is used.

This paper traces the generation, utilization and exchange of urban data. I begin by identifying key policies under the mission that drive datafication. I contextualize this in the specific interventions at the city level through the case study of Bhubaneswar Smart City. I then elaborate how this data is stored and accessed at the city level, how city authorities and institutions use this data, and analytic platforms attempt to create solutions. I then describe the India Urban Data

Exchange, a data-exchange and marketplace that accesses data from cities and makes it available to the public and to commercial firms.

I argue that while cities do not have the capacities to understand and work with the data they create, the policies and practices of datafication are primed to collate big data sets through data platforms to facilitate commercial exploitation of this data. I finally argue that the lessons from the SCM will be used to streamline datafication under the National Urban Digital Mission (2020).

"We organize in under 10 minutes": digital vignettes on platform territorialisation and labour tactics of resistance.

Nicolás Palacios- ETH Zürich

During the pandemic lockdowns, last-mile delivery platforms enabled certain urbanites to access goods and services, while making delivery workers essential for maintaining the high consumption urban life style. Riders are now ubiquitous in urban contexts, new platforms appear by the week, and transnational venture capital pumps millions into this industry.

With this push, 10-minute delivery services are on the rise. Like digital platforms that coordinate demand of consumers with offers of riders, the new 10-minute delivery services, also establish multiple logistical hubs at the neighbourhood level, to fulfill the convenience dreams of avid consumers, anchoring physical infrastructure in the form of micro-logistic hubs.

This article addresses the process of platform territorialisation and its relation to labour organisation. First, territorialisation fixes the platform in the urban fabric, improving territorial reach to maximize efficiency and profits. Second, the physical space for socialization and potential labour organization is re-created, and third, more supply-

chain choke-points are made tangible enabling for the possibility for direct struggle between workers and platforms.

I will conceptually interpret the territorialisation of platforms, through a critical and feminist geography lens, while illustrating with two case study vignettes on European the delivery companies, Gorillas (Berlin) and Glovo (Barcelona). These cases portray the interactions between the platform's territorialisation with emerging labour organization, resistance and solidarity practices, which I have mapped through social media posts by worker's organisations, and traditional media analysis of events through 2021.

Decidim platform, worlding or provincializing?

Paolo Cardullo- IN3 - Universitat Oberta de Catalunya
Ramon Ribera-Fumaz- IN3 - Universitat Oberta de Catalunya
Paco Gonzalez-Gil- IN3 - Universitat Oberta de Catalunya

The multi-purpose platform Decidim has been in use in Barcelona for many years and it has hundreds of instances running around Catalonia and the European Union in different institutional contexts from city to regions to cooperative enterprises. Decidim became a cornerstone in the Barcelona 'model' for smart cities, part of a branding and replication exercise with focus on data ownership and digital rights for cities across the world. We would argue that reproducing Decidim under a wordling framework can be an ideologically flawed and instrumental effort.

Our research has brought to the fore the 'ecosystem' of developers and academic thinking leading the technological change around Decidim in Barcelona. Rooted around the 15M movement and embedded at various levels in the political and cultural tissues of Catalan society, this 'ecosystem' has matured towards a deep cultural change in the understanding and deployment of technologies in

cities. We would rather call this human-to-human connectivity tissue a 'soft infrastructure', able to dialogue with both academia and the city while generally bypassing 'the market' and Big Tech.

In this, Decidim embeds important provincialising potentialities, remaining a techno-political success of the city of Barcelona and a leading project for participatory digital society. As the Barcelona case shows, Decidim 'ecosystem' and the epistemic community and cultural context that sustain the initiative are positively committed towards the common good. An innovative and more just digital city should be focussing on nurturing these potentialities that are deeply cultural, political and social rather than following only the technology and its replicating capabilities.

Amazon's Urban Speculations

Ilia Antenucci- Leuphana University of Lüneburg

Armin Beverungen- Leuphana University of Lüneburg

From screens to city streets, Amazon's existing technologies - such as the Echo and Ring devices, their delivery drones and robots, as well as those technologies currently only patented - point to a plethora of speculations on logistical urbanity. As Amazon enlists the city as a testbed for experiments in automation, it speculates on specific configurations of urban life that can be monetised and boost the platform's operations. Also, Amazon's technologies are speculative, insofar as they operate via machine-learning algorithms that anticipate and act upon a range of possible futures. Here, we focus in particular on Amazon Sidewalk, a mesh network which potentially brings together Amazon's various infrastructures of logistics: retail and surveillance. We inquire into the ways in which these speculative algorithms become normative, as they prefigure / indicate specific logistical subjectivities and modes of governance. How does

Sidewalk reconfigure the situated spaces of commerce, at home and beyond? What kinds of subjectivities – relating to safety and surveillance, consumption and commerce – do they anticipate and promote? Which kinds of collective decision-making processes do they preclude? What modes of governance – in terms of behavior modulation and biopolitics – do their data economies and algorithmic analytics enable? Finally, we engage in speculative research to explore potential responses to these modes of governance and types of subjectivity. What kinds of counter-speculations / practices emerge, for example in the tech worker and other (anti-Amazon) movements?

Platform Cities: Something worse beyond Smart Cities?

David Murakami Wood- Surveillance Studies Centre, Queen's University

In this presentation I argue that there is a transition occurring from Smart Cities to Platform Cities. Throughout the history of Smart Cities, there have been pre-existing and parallel histories of other urban forms like Freeports, Charter Cities, Special Investment Zones or Enterprize Zones, leisure / tourist cities like Dubai, and secure settlements from gated communities to massive projects like Brazil's Alphavilles. I identify an emerging intersection between these forms, platform capitalism and smart cities in billion-dollar projects for new cities or urban neighbourhoods: Platform Cities.

In defining Platform Cities, I propose a three-fold typology: Nationalist Platform Cities; Technocorporate Platform Cities; and Extropian Platform Cities. I outline what differentiates them and what is shared. The latter includes: a securitized separation from the surrounding polity; a bland globalist settler-colonial aesthetic politics; a highly neoliberal anti-democratic conception of

governance; a specific kind of wealthy platform citizen; and, total dependence upon data extractivism and ubiquitous surveillance, underpinned by Artificial Intelligence. I illustrate these features through a critical examination of five cases: Sidewalk Labs' failed Toronto Quayside development; Nevada's proposed Innovation Zones; Próspera in Honduras; Saudi Arabia's NEOM project; and Japan's Super City policy.

My conclusion is that we should not assume that going 'beyond Smart Cities' means improvement or even compromise with progressive goals. Platform Cities are an aggressive form of class separatist AI-enabled utopianism that denies the possibility of a common humanity or a shared world. We need to pull down their walls even before they are built. "

Session1.3
New Ways of Understanding the Smart City

Making Models - Prototyping Critical Perspectives on Urban Simulation

Nick Förster- Technical University of Munich
Gerhard Schubert - Technical University of Munich
Frank Petzold - Technical University of Munich

The status of simulation and urban models in the context of Smart Cities is contested: While apologists of “New Urban Science” proclaim the potentials of “evidence-based” planning, STS and feminist technoscience highlight the made- and biasedness of such models. Instead of passive “matters of fact,” they become “matters of concern” (Latour), assembling heterogeneous political controversies. Thus, models and simulations are political in a more-than-

representative way since they intersect evidence, actors, and urban issues.

In this paper, we extend the empirical function of urban models towards these "concerns," reframing modelling as a critical practice: How to learn about the political dimensions of analytical tools through experimental simulation? How to discover urban controversies through models? How to reconsider modelling as a socio-technical exploration of multiple situated perspectives?

We approached this topic in a critical making workshop at the Technical University of Munich. In collaboration with the civic initiative "Münchner Forum," we addressed two urban controversies in which digital models played a critical role: the internal conflicts of planning a car-lane reduction and the public debate around a high-rise project. Firstly, we rebuilt relevant digital models as material prototypes and discussed how they involved different actors and framed urban issues. Consecutively, these artefacts became playful devices to interview involved stakeholders. Through this process, experimental model-setups emerged, which explore the models' engagement in urban controversies. Traffic modelling became a corrective harmonizing incommensurable political goals, and building-simulations turned out as a tool to structure a heated debate from different perspectives and on different scales.

Case Study on Design of the Sami Pavilion through Mixed Reality

Kai Reaver- AHO Oslo School of Architecture and Design and HEAD Haute École d'art et design, Geneva

Smart city discourse tends to bifurcate between tech-driven and citizen-driven models (Hill, 2018). Some theorists claim that these two models may merge (Picon 2015, de Wall, 2019). Halegoua (2019) writes that smart cities tend to struggle with putting people first, while

positing the utility of placemaking strategies coded into the design of physical spaces as a way forward. The case study attempts to develop this claim by applying the design of physical space to smart city methods through the Nordic Pavilion (retitled the Sami Pavilion) at the 2022 International Biennale of Art in Venice. We base the case study on earlier research demonstrating 3d-scanning to create 1:1 models of architectural heritage sites in VR [1]*, and the use of such data in performing user research with user groups not normally involved in the design process [2]*. We expand on this research by looking at ways to facilitate a multiplayer design process inside of a virtual model. Artworks and positions of artworks are tested in various configurations within the model in order to simulate the spatial experience of the space. The model is then used to generate documentation and installation instructions, which are installed. We then perform studies to check the relationship between the digital VR model and the finished result. We reflect on how our methods can help facilitate design across borders, levels of expertise, and design cultures, while elaborating on what the data may tell us about the smart city. In conclusion, we present findings suggesting how the digital and physical space is merging into a single medium. *author omitted for peer-review'

The life and death of Indian municipal bodies on social media

Persis Taraporevala- King's College London
Matt Birkinshaw - University College London

India's Smart Cities Mission emphasises the role of digital communication in participatory governance and smart cities in India are active across multiple social media platforms. While research on social media use finds that it may be used to promote city branding,

as well as institutional accountability, very little, is known about the digital lives of local government in India.

This paper presents a critical overview of online representations of local governments in India to explore a future research agenda on the digitalization of urban governance. We focus on Twitter, a social media platform, routinely used by Indian government bodies and politicians. Analysis of a dataset of over 500,000 tweets - including full timelines of 160 smart city and municipal accounts – allows us to explore the creation, use and, where applicable, cessation of these social media presences. Through content and network analyses we argue that different communication patterns of municipal governments and smart city parastatal management organisations reflect different institutional identities. The smart city imaginary has been understood as multi-valent and corporate dominated (Hollands 2015), however, our data also suggests that Indian smart city organisations use social media to construct a pro-social civic identity directed towards 'quality of life'. The paper presents this approach to social media use as a step towards critical government social media research that moves beyond 'digital positivism' (Fuchs 2017). "
Matt Birkinshaw (Research Fellow at University College London)

Affective methodologies and more-than-human encounters – livability and life quality beyond the smart city

Kristine Samson- Roskilde University
Jonas Fritsch- IT University of Copenhagen

What are the qualities of a skylark singing, fungi growing on a branch, a dandelion breaking the pavement, and how does it foster livability and quality of life in- and beyond the smart city?

The recent more-than human and vitalist turn in urban studies and urban design (Ruddick 2017, Jasper & Gandry 2017, Singh 2017)

allows for new ways of understanding urban livablity as relational, affective and transversal. While several urban scholars argue that datafied, cybernetic urbanism is related to control (Greenfield 2013, Krivy 2018), we propose that affective and data-driven methodologies and technologies also hold the promise for a qualitative revaluation of urban livability and encounters (Fritsch and Samson 2020).

Whereas urban design and planning use data in the development of cities, the affective qualities of and social, cultural and environmental ecologies are often neglected or overlooked in our understanding of human – and more-than-human – experiences of well-being and belonging.

Working with experimental methodologies and technologies that register and revaluate the affective, sensory and somatic qualities of urban space might help us understand the encounters between bodies in the city and add useful knowledge to what is life quality and urban livability - and for whom? By bringing in examples from two urban labs - Affective Interactions & Relations (AIR) Lab and Performative Urbanism, we explore ways of attuning to and augmenting the vitalist, affective and somatic qualities of urban space and its more-than-human relations. Finally, we argue that such affective and experimental methodologies can expand a human-centred definition of livability by pointing to the values of for instance urban nature and the coexistence of other species in the city.

Towards the Streetsmart city: The imagined average, experts and smart city technologies

Anders Riel Müller - University of Stavanger
Jens Kaae Fisker- University of Stavanger

The implementation of smart city projects runs the risk of perpetuating a feedback loop that gradually exacerbates existing inequalities among urban dwellers while reinforcing lines of sociopolitical exclusion. At the heart of the matter is the idea that urban planning should be targeting all citizens equally. While unacknowledged and unspoken, 'all citizens' is usually taken to mean 'the average citizen'. In reality, however, this means that urban planning ends up targeting an imagined average corresponding to a minority of urban dwellers who look, think, and live in ways that turn out to be very similar to urban planners themselves - i.e., overwhelmingly white, middle-class, able-bodied, educated, etc. The loop of inequality and exclusion was not caused by the technologies of smart cities but because they are designed with a similar imagined average citizen in mind, these technologies become powerful means of generating increasingly exclusionary urban development trajectories. Drawing on critical feminist theory (Gibson-Graham 2006; Young, 2011; Kern 2020) this abstract proposes a methodology of participatory planning that we term the Streetsmart city. The aim of the methodology is to challenge structural power inequalities within the urban planning process and explore whether the roles of experts (researchers, architects, planners, artists, etc.) and smart city technologies can be recalibrated to afford political potency for the visions of suppressed and marginalized populations in the planning process.

Session 1.4
Alternative Approaches- Smart Social Action

A conceptual framework for grassroots digital urbanism

Niloufar Vadiati- HafenCity University Hamburg

At a time when the state-corporate version of the smart city seems to be far from a panacea for cities, the need to think beyond critiques of techno-capitalist developments and instead to imagine an alternative regime to automatic production of space and techno-elitism governance has arisen. Thus, there has been an emerging paradigm of urban digitalisation that is coupled with substantial political mediation and agentic capacities for citizens. This paradigm, identified as grassroots digital urbanism, is being practised among a network of collectives, initiatives and projects within numerous cities, pursuing technological sovereignty in spatial development, demystifying the 'black box' of platform urbanism and aligning technology to the urban-democracy agenda.

This article contributes to the emerging body of urban digitalisation scholarship concerned with alternatives to the tech-capitalist narrative of smart cities by identifying the common threads among their discourses and then by drawing a conceptual framework for grassroots digital urbanism.

The paper first brings the ongoing discussions around the smart city and platform urbanism into critical conversation through the lenses of the right to city and platform capitalism discourses. Then it reviews the literature on the unfolding alternative ideas and practices mobilised at the grassroots level to discursively and practically contest these techno-capitalist models. The output of this article is

conceptualising a version of grassroots digital urbanism that is at the intersection of grassroots urban movement and digital sovereignty.

Smart and sustainable for whom? Critically examining the inclusion of smart citizens and sustainability goals in New Delhi's smart city project

Aditi Singh- University of Oklahoma

In 2014, Indian Prime Minister Narendra Modi announced 100 smart cities under the federal/central government's initiative of Smart Cities Mission (SCM) programme, an initiative effective along with the regime change in the central government of India. The goal of this programme was to improve the urban infrastructural crisis. The Ministry of Urban Development (MoUD), a central government body, collaborated with Bloomberg Philanthropies to design and develop the Smart City Challenge, a method through which Indian cities competed with each other for the central government's funding. One of the central and crucial criteria for the selection of cities under the Challenge was a citizen-centric approach – an inclusive and sustainable smart city. However, New Delhi Municipal Council (NDMC), undertaking the smart city project in New Delhi, has not announced any direct initiatives for the differently situated urban populations in the city such as economically weaker sections (EWS)/ slum dwellers and women within its smart city proposal (SCP). In addition, the identity of these 'smart' stakeholders remains ambiguous along with ambiguous benefits to those stakeholders of sustainable practices. This research will address these gaps by deploying methods of discourse analysis, semi-structured interviews, and survey questionnaires to study NDMC's smart city project. The results of this study will unfold access to the smart city for whom, sustainability for whom, what kind of sustainable environment, and

how does the NDMC's claims of "inclusive and sustainable" smart city materialize on the ground.

Social Action Coordination in Calgary's "Smart" City Initiatives

Byron Miller - University of Calgary

What “smartness” is and who it serves remains elusive. In this research –part of a three-year, seven city comparative project–we focus on the mechanisms of social action coordination in Calgary’s diffuse constellation of smart city initiatives. While Calgary pursues “smartness,” it does so as a patchwork of only loosely coordinated initiatives. Not unexpectedly, these initiatives take a variety of forms and serve diverse objectives. Based on in-depth interviews with key actors in the public, private, and not-for-profit sectors, we explore the specific action coordination logics through which smart city initiatives operate–instrumental, strategic, and/or communicative–and the interests that these initiatives serve. Contrary to portrayals in much of the smart city literature, we find an almost anarchic landscape of initiatives following diverse logics and serving diverse interests. Moreover, these initiatives are still very much in development, underscoring the need for vigilance and voice on the part of progressive organisations and activists.

An Insurgent Smart City: How the Hong Kong protests created an alternative imaginary of the smart city

Andrew Stokols- DUSP, Massachusetts Institute of Technology.

Urban scholars have critiqued smart cities for their association with neoliberal governance, myopic focus on quantifiable aspects of urban systems, and failure to incorporate citizens’ needs and

aspirations. The "smart city" remains a contested concept and as such is subject to re-appropriation by more socially just or progressive ends. Here, I analyze the case of an urban social movement, the 2019-2020 Hong Kong Anti-ELAB protests, as an alternative, insurgent smart city. I describe various digital tools and actions central to the movement: distributed coordination using encrypted messenger platforms, crowdsourced counter-surveillance, and insurgent placemaking. These tools emulate but also invert systems seen in some smart city projects. The potential for digital tools innovated during the movement to spill over into everyday uses is also discussed. Framing the Hong Kong Anti-ELAB protests as an insurgent smart city offers an alternative sociotechnical imaginary of what smart cities could be.

The Governance of Smart cities: A case for citizen engagement

Rama Kummitha- Northumbria University

How do we govern smart cities which nurture and promote citizen engagement? Answering this question is important because municipalities and city halls have been increasingly looking for approaches to enhance citizen participation in smart city building. Further, researchers, policymakers and community activists seek to prioritize inclusion of the communities in the local context. In seeking answer to our research question, a systematic literature review of the existing models of governance were carried out. The growing literature on citizen engagement in smart cities offers a unique opportunity to consolidate and understand differences and effect of the governance models adopted in the process of promoting citizen engagement. Overall, we have reviewed 64 articles that fulfilled our search criteria and highlight that there are three specific governance models that cities typically adopt to enhance community interest and

its participation in smart city projects namely blended, creative and collaborative models. We argue that all the three models offer an array of opportunities for citizens to engage in the smart city building. However, the depth of their participation varies in different models from passive (blended) to semi active (collaborative) to active (creative). Each of this model comprises of different strategies. By drawing on examples from various smart cities across the globe, we offer policy suggestions that would be useful to build futuristic citizen centered smart cities.

Session 1.5
Smart Practices in Urban Settings

The (im-)mobile e-bike: infrastructural components of an emerging micromobility practice

Karin Edberg- Linköping University

Electrically assisted cycling is a growing global phenomenon in the 'smart city'. Just as other vehicles, the e-bike is operated somewhere and in connection to others, and far from always in motion. In this article, related practices such as parking, charging and sharing take centre-stage together with infrastructures such as the road- and electricity networks and apps for route finding, maintenance and trip details, facilitating and constraining the practice in different ways. By analysing policy documents, interviews with policymakers and interest organisations and diaries written by e-bikers in semi-urban and urban settings in Sweden, the relationship between e-biking and surrounding infrastructures of motion and non-motion is under scrutiny.

The article departs from an understanding that practices, such as e-biking, are connected not only to other practices, but also to small- and large-scale infrastructures and to the context within which it is performed. Infrastructures often figure in the shadows of the analysis but have great influence on how mobility practices are performed and understood, but also on aspects of justice. In the theoretical framework, theories of sequenced practices and the roles objects and infrastructures can play in practices are combined with mobility theories including mobility justice.

Elements combined in e-biking, such as the computer and the electric motor, gives e-biking a distinctive form compared to other micromobility modes and car driving, and thus also to the relationship to infrastructures. Increased knowledge of this relationship can facilitate planning procedures and policy making and is thus of general interest.

The role of sensors in the production of smart city spaces.

Desirée Enlund- Linköping University

Katherine Harrison- Linköping University

Rasmus Ringdahl- Linköping University

Ahmet Börütecene-Linköping University

Jonas Löwgren - Linköping University

Vangelis Angelakis - Linköping University

Smart cities build on the idea of collecting data about the city in order for city administration to be operated more efficiently. Within a research project gathering an interdisciplinary team of researchers – engineers, designers, gender scholars and human geographers – we have been working together using participatory design approaches to explore how paying attention to the diversity of human needs has

the benefit of making urban spaces comfortable and safe for more people. The project team has deployed sensors collecting data on air quality, sound, and mobility on a smart city testbed in Norrköping, Sweden. While these sensors are meant to capture an accurate 'map' of the street and what is going on along it, our interdisciplinary conversations around the sensor boxes reveal the heterogeneity both of smart city planning and spatial formulations of the city. These discussions have given rise to questions regarding the work that goes into constructing the sensor box itself, as well as the work of deploying it, and how these influence the 'map' that the sensors produce. In this presentation, we draw on Lefebvre (1991) to explore how the sensors themselves produce smart spaces. We analyse how the sensor box depends on perceived space to function (requiring electricity), and simultaneously it produces conceptualizations of space that are influenced by the materiality of the box itself (sensors being affected by heat and noise). Further, we explore how the (in)visibility of sensor technology influence lived space.

Situated experiences: Smart streetlighting systems and their differential impact on residents

Anna-Lena Theus- Carleton University

This paper takes a human-centered (Norman, 2013) approach to the study of a common technological system – smart streetlights. I draw on results from a study that examined the perspectives and reservations of 598 Canadians towards smart streetlights and analyze their responses through the lens of feminist standpoint theory (Harding, 2004). The study provided insight into how networked smart streetlights can enhance the lives of some while disrupting that of others – a discrepancy that became especially clear through participants' contradicting notions of safety and security and the fact

that avoiding city areas in which smart streetlights are deployed was perceived as the only option for opting out. As smart streetlights become ubiquitous in public spaces (Lueth, 2018), this paper calls for a shift from a technology-focused towards a human-centered, socio-technological approach to smart streetlights. To that end, I propose some practical approaches to mitigate a series of unplanned but possible consequences. Among other things, I recommend that smart streetlight creators apply an iterative, participatory design approach to generate input and feedback from different populations from all over the city and at all stages of the design process. In addition, I encourage urban planners to incorporate a short list of reflective questions into their planning practices to consider if some smart streetlight features and sensors are necessary, and to engage in discussions with residents about the consequences of introducing smart streetlights into different city areas, especially with respect to the potential negative effects on already disadvantaged communities.

Support for movement in the smart city: E-scooters as a contested mode of 'sustainable' mobility

Alva Zalar- LTH Lund University

With my PhD thesis, I aim to provide a critical contribution to discussions about sustainable and equitable cities by telling stories about how 'sustainable urbanism' is enacted through human-spatial relationships. I engage with ethnographic fieldwork focused on daily life spatial practices, and attempt to build a theoretical framework rooted in concepts deriving from Judith Butler's body of work – such as performativity, support and supportive infrastructures. Understanding the built environment as performative and supportive actualizes its role in (re)producing (in)equality.

For the Beyond Smart Cities conference I propose to present a part of this research project (in the making), guided mainly by two questions: 1. How does 'smart' and 'sustainable' mobility infrastructures support daily life movement? 2. How are such mobility practices performative in enacting a 'sustainable' and equitable city?

E-scooters can be seen as an example of 'smart' mobility. Despite not necessarily planned for, e-scooters have increasingly become a common contemporary mode of travel with possible sustainability credentials. It can be argued that e-scooters really have become important for daily life movement, not the least for young people, but they are also highly contested. Their sustainability claims and usefulness in urban environments are criticized in terms of e.g. energy efficiency, safety, urban order and substandard working conditions for the maintenance workers. E-scooters thus make up an important supportive element in a smart mobility infrastructure but could also be viewed as a part of exploitative human-spatial interdependencies. To investigate the particular complexities of e-scooters is used as a stepping-stone to make a broader argument about sustainability and (in)equality in the smart city.

Justice and Equality for Children in Urban Planning- Democratic Tools for Children's Participation

Ingrid Svetoft- Malmö University

Märit Jansson- Swedish University of Agricultural Sciences

One hundred years ago women were invited to the Swedish society by gaining the democratic right to vote. We know that democratic changes often take time. Several years ago Sweden signed the UN Convention on the Rights of the Child and in 2020 it became a part of the legislation requiring focus on the best interests of the child. Still, in the development of smart cities through processes of democracy,

planning, design and management, children's perspectives must become better represented.

New understanding and working methods are therefore needed in order to raise children's opportunities to influence their living environments. Such methods need to invite children to talk about our common designed living environment. Equality and justice based on the democratic rights need both empowered individuals and interdisciplinary collaboration.

A project has been conducted where four municipalities in Skåne have been actively engaged in a process with local schools and planners, testing a method for children's participation called Architects in school. The method involves local school classes in several meetings and was created in 2011 in an urban development project of Drottninghög in Helsingborg. Terminology has been collected and discussed with the children where the method has been used. This has led to dialogue, learning and empowerment.

The smart city can be developed in a sustainable way if all citizens are invited to a dialogue. To get power and influence there must be guidance for children on how to communicate, and step into the room for democratic rights and obligations.

Session 2.1
The Politics of Smart Infrastructure

Digital Water Infrastructures in small cities in Mozambique

Susana Neves Alves- Université Gustave Eiffel

Digital technologies are portrayed as essential tools that can help overcome technical, socio-political and institutional challenges

related to piped water supply in cities across Africa (GSMA 2018). A variety of mobile-enabled solutions are being deployed to monitor the functionality and consumption patterns of water points, as well as to identify leakages, broken meters and collect users' feedback. Meanwhile, the digitisation of processes relating to meter reading, billing and payment are increasingly adopted as cost-effective solutions that can help utilities reduce non-revenue costs. Studies critically investigating the increasing but rather unexplored adoption of digital technologies in water supply are an emerging and exciting field of research (Guma 2019). This paper will explore the adoption of digital technologies in piped water supply in small cities in Mozambique, which is being promoted by various international organisations, namely through their support of (international) private companies leading pilot/experimental solutions in several cities across the country. Based on interviews with companies developing digital technologies, private water operators implementing these solutions and users, this article discusses the implications of such endeavours on the ground. Some digital technologies in piped water supply are valued by users and operators. However, the ways in which the costs of these solutions are subsidised by international donors during pilot phases and then concealed and transferred to users once pilot projects are finished generate questions regarding their suitability for small cities, and the renewed role of profit-making private international companies in piped water supply in small cities.

Policymaking as part of everyday life – a story about resistance

Caroline Wigren-Kristoferson- Malmö University
Kenneth Mølbjerg Jørgensen- Malmö University
Maria Aggestam- Lund University, emerita

The base for the smart city is electricity. If you control the electricity, you control the city. This paper builds on a narrative about how inhabitants in a city made the decision to resist the sale of the municipal energy company. The company was owning the infrastructure for electricity, partly needed for Internet and ICT. The inhabitants organized a name collection, to stage a referendum. They managed to collect enough names and the referendum was held by the municipality. The result was astonishing, the inhabitants spoke with one voice - they did not accept the sale. The municipality listened and followed the will of the inhabitants.

To see the contradictions between the different actors and the complexity embedded into the story we build this paper on the discursive Tamara metaphor (Boje, 1995) and tell the story from the perspective of the municipality, the perspective of the inhabitants, and the perspective of the local newspaper. A two-year ethnographic study conducted in the municipality by one of the authors is the base for the paper.

We show how resistance was mobilized in the municipality and how this resistance resulted in change of action. This story tells that policymaking can be part of everyday life in a city and how inhabitants engage in the shaping of their future.

The System of Autono-mobility: On the Logic and Logistics of Machine Vision and Cognition.

Fabio Lapaolo- University of Turin

In the wake of what has come to be known as the smartness mandate, cities have become testbed territories for automated forms of perception and cognition, including on-road public trials of self-driving cars (SDCs). Working at the intersection between social research and computer science, this paper reflects on the role of AI, and in particular computer vision — the main technical issue addressed, and one of considerable practical policy and engineering import — as a catalyst for urban transformation. At variance with most critical accounts of urban computation concerned primarily with the rhetorical deployment of technology for entrepreneurial and regulatory effects, this paper reintroduces materiality alongside technicality as key dimensions of analysis for a better appreciation of the spatialized effects of AI.

Drawing on the state-of-the-art in driving research, the paper begins with an in-depth discussion of the operational logics of SDCs in relation with city-specific sociality and form. By exposing how machine vision systems operate – and fail – within environments designed for human senses, the paper problematizes the discursive construction of SDCs as autonomous technologies and the role it plays in envisioning contending policy arrangements and practical solutions through which full driving automation might be realized. Proposing the conceptual lens of autono-mobility, it is argued that precondition for the citywide deployment of SDCs will be the reconfiguration of urban spaces, both socially and materially, to compensate for today's weaknesses of machine learning and vision — with requirements (social, political, spatial, and environmental) extending within the immediate urban surroundings and beyond.

Depoliticization and politicization in smart city pilots

Dalia Mukhtar-Landgren- Lund University

Smart city endeavours are often rolled out into the urban landscape through pilots and urban labs. These demarcated sociotechnical experiments are collaborative ventures where ICT companies, together with actors such as researchers and urban planners, test smart solutions – such as autonomous buses or smart housing solutions – in a seemingly "real-life environment". Despite their air of creativity and flexibility, pilots are highly rationalistic tools: They generally forward a particular type of specific and delimited type of knowledge that can be scaled-up and thus travel between cities and contexts. Pilots also have a strong emphasis on controllability, and when financed through national- or EU-based project funding, they are often encumbered with demands on set deliverables and organized to enhance comparability and bench-marking. At the same time pilots are – paradoxically – based in a strong notion of learning from "real-life settings".

Drawing on empirical studies of smart mobility pilots, this paper discusses processes of politicization and de-politicization in smart city governance. Three potentially depoliticizing moves are highlighted (i) The ambition to generalize from a delimited group of "real-life users" hides differences and conflicts between different groups and interests in the city. (ii) The assertion that certain forms of scalable and testable knowledge are more legitimate, delimits the space for alternative forms of local and experience-based knowledge. Finally (iii) the tendency to perceive smart city pilots as mere "tests" makes them appear as neutral to political goals. Taken together, these perceptions of knowledge and democratic decision-making configures smart city pilots in potentially depoliticizing ways.

Session 2.2
Smart Housing

Sensing security: when public housing companies go smart

Helena Löfgren- Södertörn university
Anne Kaun- Södertörn university

This presentation engages with a pilot project of Uppsalahem – a Swedish public housing company – that has installed smart sensors in several buildings that are considered as being situated in especially vulnerable areas. The sensors are registering sounds, smells, light, and movements in common areas of the buildings to identify when safety hazards appear. The aim is to predict and consequently prevent harm before it happens through data analytics and implementing additional security measures based on the finding. Through an exploratory case study, we map the actors involved in this particular pilot project as well as how the smart sensor project is motivated by the housing company. In a first step, based on interviews with the project manager at Uppsalahem, the involved start-up company Collectivate and Ignite Public the consultancy company that matches start-ups with the public sector, we explore how smart initiatives like this are set up, funded, and discursively motivated. Especially the status as pilot project will be explored as opening grey zones for circumventing public procurement procedures and other legal constraints for the public sector in the context of smartification processes. In a second step, we interviewed residents to capture their attitudes towards and experiences with the sensor project. Based on the case study, we ultimately argue that practices of predictive policing are extended into the public housing

area and in extension the welfare sector through projects such as the smart sensor project.

‘Pairing technologies’, urban matchmaking, and the access to housing.

Ida Sandström - Lund University

A general digitalization has in the last decade provided city administrations with growing volumes of data about residents’ individual living conditions. This has, together with growing inequalities, made cities increasingly interested in the possibility to matchmake individuals and groups with urban projects at different scales. Whereas the traditional matchmaking plays out in the romantic sphere, the pairing of people and urban projects include other basics including the access to housing.

Drawing on two Swedish municipalities, and two national models for co-living, this article explores the ethical potential of novel forms of matchmaking in relation to housing. To what extent do they help municipalities to better understand and respond to distinctive and diverse needs? What values are produced, and what is hindered? Co-living is addressed as a possibility to handle sudden or unforeseen fluctuations on a societal level (migration waves or recession), but also on an individual level (separations or having to move to a new city). The article investigates the capacities and risks of a potential upscaling of urban matchmaking through four ongoing projects.

It is finally argued that the notion of smart city out to be discussed in closer relation to the growing preference of tentative forms of governance. Testbeds, urban laboratories, and municipal matchmaking are all part of an increasingly incremental development, producing uneven "patch-worked" landscapes, also in terms of access to housing. Matchmaking projects may complement,

but also contradict long term housing policies, as seen in the empirical examples.

Investigating the intersection between class, spatial justice, and smart-and-green residential project. The case of Cascina Merlata/ Up Town Smart District in Milan

Filippo Borreani- University of Turin

This contribution focuses on the construction and gradual settlement process of new residents in a residential district in the north-western periphery of Milan, called "Cascina Merlata/Up Town Smart District". The district bases its business strategy on innovative "smart" services (domotics, neighbourhood app etc.) and "environmental sustainability". It is conceived as the residential part of an extensive technological innovation hub.

In this empirical context, the research attempts to analyse the influence of the socio-technical urban imaginary of smart and eco-green city on the housing choices of new residents and to relate the smart district to the rest of the area, a working-class neighbourhood built during the Italian economic boom years.

The empirical results of the research, an ethnographic investigation developed with qualitative methods, suggest three main findings useful for the debate about smart city.

Firstly, the research shows that this smart-and-green residential plan is mainly designed for a young family with high educational qualifications and working in technologized tertiary sector. These rising middle and upper middle classes are essential in the competition between aspiring global cities. In this sense, investigating the intersection between smart-based marketing strategy and professional status can help to enlighten broader attraction strategies in contemporary metropolis. Secondly, smart-

and-green features can generate atmospheres of distinction and produce soft forms of gated community, with complex feelings towards the rest of the area (fear, anxiety, sense of not belonging etc.). Thirdly, implicit smart city political reflections about citizenship seems to influence the relation between institution and citizens, reorientated towards more neoliberal models.

Governance beyond regulation: Platform urbanism, the entrepreneurial state, and the limits of platform regulation

Jelke Bosma- University of Amsterdam

As platforms take on an increasingly infrastructural role, how should we understand their relations to states that try to regulate them? To answer this question, this paper focuses on one of the most prominent actors in the platformization of cities: Airbnb. The company's activities have engendered a range of widely documented problems in cities, resulting in increasing calls for regulation of platform-mediated short-term rental. However, the emerging literature on the regulation of platform-mediated STR tends to misrepresent the essence of the problems when 'regulatory solutions' are sought. I argue that a focus on how states regulate platforms, rendering the state as common-sense regulator in the name of an assumedly undisputed public, common good, misses the point that cities have long been taking an entrepreneurial approach to urban development, with the aim to improve cities' economic position first and foremost. Meanwhile, overlooked are Airbnb's enduring efforts to establish itself as essential urban infrastructure by taking on (formerly) public functions, as well as the platform's regulatory entrepreneurialism. I substantiate my argument with a in-depth case study of the governance of short-term rental housing in Amsterdam, focussing on the periods before and since Airbnb

became active, based on analysis of empirical data, including interviews with policy makers, policy documents and media reports. From this perspective, urban governance of platforms cannot be accounted for in terms of governance *of* the market, but has always been part of governance efforts *through* and *by* the market.

Session 2.3
Power and Data

Notions of Digital Sovereignty and Indications for Urban Futures

Lena Unger- TU Dortmund University

Digitalization in cities or put differently "smart cities" are nothing new. Simultaneously with their emergence, strands of critical scientific literature on its perils such as neoliberalism, injustices, problems with data ethics and privacy, commodification and social control evolved (Hollands 2008, Coletta et al., 2018). In contrast to this dystopian outlook for urban futures, the concept of digital – or technological - and data sovereignty entered the scientific discourse on digital futures of municipalities. The emerging research field claims to outline alternative pathways or opportunities in contrast to the neoliberal smart city development.

Barcelona has often been showcased as an example heading towards a more inclusive, bottom-up oriented and democratic digital urban future, where technological infrastructure and data use is implemented, managed and controlled by citizens, thus focusing on their needs and aspirations (Lynch 2020, Calzada 2021). On the other hand, digital sovereignty has gained significant attention within policy discourses on various administrative levels, based on differing motives, oftentimes unfolding impacts on local governments (Pohle

2020).
By illuminating the concept, its understandings and exemplary impacts from various perspectives (Couture & Toupin 2019) the work aims to contribute to the academic discourse on digital sovereignty, its influences on cities within Europe, beyond the example of Barcelona. Guiding research questions are: How can digital/ technological and data sovereignty be conceptualized? What are the implications of digital sovereignty and its understandings on different dimensions of digital urban futures such as policy, design of technology, civil society and individuals? An extensive review of scientific literature and documents on digital sovereignty was conducted in order to answer those questions.

Calzada, I. (2021). Data Co-Operatives through Data Sovereignty. *Smart Cities*, *4*(3), 1158–1172.

Coletta, C., Evans, L., Heaphy, L. & Kitchin, R. (2018). *Creating Smart Cities*. Routledge.

Couture, S., & Toupin, S. (2019). What does the notion of "sovereignty" mean when referring to the digital? New Media & Society, 21(10), 2305–2322.

Hollands, R. G. (2008). Will the real smart city please stand up? *City*, *12*(3), 303–320.

Pohle, J., & Thiel, T. (2020). Digital sovereignty. Internet Policy Review, 9(4).

Lynch, C. R. (2020). Contesting Digital Futures: Urban Politics, Alternative Economies, and the Movement for Technological Sovereignty in Barcelona. *Antipode*, *52*(3), 660–680.

Power to the People: The Trials of "Empowerment" through Data Access

Sage Cammers-Goodwin- University of Twente

Over the summer of 2021 the world's first stainless steel 3D printed bridge was installed in the Red Light District of Amsterdam. Equipped with sensors (load cells, accelerometers, strain gauges, thermistors, and more) to measure the bridge response to external

stimuli, data from the bridge has been stored and used for research purposes within the Smarter Bridges group. As the one year embargo period on opening up bridge data access to the public draws to a close, the BRIDE group plans to host a hackathon with the bridge data. The development and outcomes of the hackathon bring us closer to understanding to what extent data access can empower the public. What is the human impact on how data is revealed to the public? Which groups feel welcome at such events? What, if anything is built - and who are they built for?

The demand-side of datafication in smart cities: what data are seen to really matter?

Carl Chineme Okafor- The University of Stavanger

Data is usually contingent and situated to contextually accomplish objectives (Kitchin & Lauriault 2014). Its repository act as an expression of knowledge and power (Lauriault, 2012). From the nature of data sought after, their production, organisation and engagement, including how they make sense to the actors, we can understand the smart city's interactions with its datafication processes. In smart cities scholarships, focus on data scale and use, i.e., the accumulation of vast data for further decision, is immense but less on the critical study of prioritised data aspects.

This single case-study research seeks to plug this knowledge gap. It investigates the open data repository of the Smart City Stavanger (N=359), maps and observes its data production points, conducts interviews with a constellation of actors, and analyses relevant documents (minutes of meetings, policy papers) to get answers to: 1) what is the nature of data that is collected in the smart city? 2) what data is prioritised, and how does the smart city collect them? 3) what do these data aspects mean for the smart city objectives?

It leverages the Critical Data Study (CDS) framework to unpack the data assemblage processes in the smart city. The CDS unravels the complex socio-technological processes of data assemblage as seen in matted devices and elements – technological infrastructure, political, social and economic systems (Dalton & Thatcher, 2014). The study contributes to an understanding of the 'datafied' sociality in smart cities.

Quantification and control in the city: the long historical roots of the Smart City

Alexander Wulff- University of Helsinki

The history of the smart city often begins in the 1990s with some references to the urban cybernetics of the mid-twentieth century, seldom connected to the longue durée of modernity. This article aims at a firmer historical-sociological grounding of the smart-city phenomenon in the development of capitalist modernity. It argues the smart city is contingent upon three historical processes: 'the Control Revolution' of the late nineteenth century; the competitive compulsion of capitalism; the development of the 'knowledge economy'.

The city, wrote Robert Ezra Park, is the ultimate manifestation of modernity, albeit one cast in a state of permanent crisis. Modern capitalism's very tendency to crisis gave rise to what James Beniger termed 'the Control Revolution', marking the inception of techniques and technologies of modern surveillance. With it, the city and its dwellers fell under disciplinary city planning. This production of space embodies relations of power and control that increasingly have come to serve the needs of the capitalist economy.

Smart city technology, as noted by Jathan Sadowski and Frank Pasquale, is designed for control, made possible by rendering the

socio-spatial into data. Quantification has long served as a means to achieve increased control over the measured thing, while also (re)producing relations of oppression and discrimination. For example, the construction of National Accounts and National Innovation Systems aims at increasing control over the performance of the economy. Smart cities are in many ways a continuation of this process, aimed at facilitating the competitiveness of a city's knowledge-producing, innovative and 'brain-draining' capabilities.

Can big data support urban planning? On the challenge of representation

Christoph Fink- University of Helsinki
Elias Willberg- University of Helsinki
Tuuli Toivonen- University of Helsinki

Every single one of us produces data, all the time. Much of this information relates to our everyday lives in cities: network operators record when our phones hand over connections from one cell tower to the next; when we borrow a bicycle or electric scooter the sharing system keeps track of trip details; and smartphone apps, e.g., sports activity apps, track our every move.

These data are problematic in many ways: with many data sets, issues exist around representation, uncertainty, and data ownership. Biases and power relations are embedded in seemingly impartial data.

Still, such rich data sources should not go unused. For instance, big data has the potential to take planners' focus away from the 'average person', and shine a light on the diversity of city-dwellers and their realities. They offer unheard-of insights into the dynamism of cities and map mobility patterns in highest detail.

For this talk we underwent a critical reflection based on our extensive research using big data: Who is really represented in our data sets? How can we ensure that we do not draw conclusions for the many from data on a few? Can representativeness of big data be measured reliably? How can we transfer our academic knowledge about epistemological challenges to planning practice, where smart city infrastructure and digital urban twins start to gain ground?

We are convinced that, with thorough critical reflection, and especially as an exploratory tool, big data can be a valuable asset for urban planning. Before we get there, though, we have to find out to which questions they can provide viable answers and where their limits lie.

Session 2.4
Smart Placemaking

Place experience dimensions in Google online reviews - attributes, practices and atmosphere

Maciej Główczyński- Adam Mickiewicz University

Spatial media bring out new forms of interaction with place, leading to the emergence of new ways of embodying the experience. The perception of place and its dynamics of change has been multiplied by the emergence of digital platforms, which create many and varied representations of place in spatial media. These representations are dependent on the digital platforms' ecosystem, formed by platform-specific mechanisms and practices of digital placemaking which is a data- and human-driven process of reshaping places. The study applied text mining techniques and statistical methods to explore the role of user-generated content as a digital placemaking practice in

shaping place experience. The online reviews were collected from Google Map for the 23 places from Poznań, Poland. The analysis showed that place experience is described by three dimensions: attributes, atmosphere place practices that most closely reflect the specificity of a place. The place attributes blurred the boundaries between their digital images, whereas the atmosphere dimension reduces the diversity and uniqueness of the place. In conclusion, user-generated content as an element of the process of digital placemaking increases place awareness and democratizes human participation in its creation, yet affects its reduction to homogeneous information processed through mechanisms operating within a given digital platform.

The dichotomy of urban destinations in tourism and smart city governance: An analysis of stakeholders' approaches in Barcelona

Ana Pastor- Universitat Rovira i Virgili

Marc Fuster Uguet- Universitat d'Alacant

Barcelona's governance has witnessed several significant transformations during the last decade. The tourist capital settlement and city's governing strategies to a Smart City are emerging challenges towards shaping the city of tomorrow. Different moments of change, notably political turns and social-environmental crises have prompted adaptations in the structure of municipal governance of tourism.

In this work, we investigate the evolution of smart city and tourism related governance. On the one hand, looking at the documents of the different governing bodies and on the other hand at the results perceived by the actors involved in the tourism ecosystem along a

time perspective covering the period from the 2008 financial crisis until present times.

We build the hypothesis that smart initiatives and the digitalisation of the city have not been negotiated and disseminated thoroughly among the key stakeholders in the local tourism ecosystem, leading to a lack of alignment between what is proposed, what is planned and what is developed, generating a duality and disconnection between tourism and smart city initiatives, which make it difficult to achieve synergies between the two policies.

The empirical work methodology consists of a content analysis of 30 in-depth interviews carried out with key representatives of Barcelona's private and public agencies, dissecting positionings and perceptions. Our analysis shows the relationship and the stakeholder's involvement in tourism and smart city initiatives, as well as measures to what extent Barcelona is evolving or not towards a smarter and more inclusive destination. The governance of smart cities and tourism are initially two separate domains that derive from different agencies and stakeholder alliances.

Tourism and social exclusion: Towards a smart tourism city governance?

Josep Ivars-Baidal - University of Alicante (Spain)
Antonio P. Russo- Rovira i Virgili University

The growth of urban tourism prior to the Covid 19 pandemic favoured processes of social exclusion linked to the gentrification of certain neighbourhoods, given the increase in the cost of housing and the change in urban functions, or to the precariousness of tourist jobs. This stage of tourism growth, which will presumably return after the pandemic, was strengthened by the impact of ICTs on tourism

and the development of platform economies in the last ten years, coinciding with the boost to smart city projects.

This contribution studies, from a comparative approach, tourism governance and the smart city project approach in 8 cities (Amsterdam, Barcelona, Edinburgh, Jerusalem, Lisbon, Ljubljana, Turin and Venice), integrated in the EU project H2020 SMARTDEST (https://smartdest.eu/), in order to analyse how they deal with the management of social exclusion processes derived from tourism. The results, far from showing a synergistic relationship between tourism governance and the smart city, reveal a deficient integration of both policies, also taking into account the fact that the smart approach is used unevenly in the urban and tourism management of the cities considered.

With few exceptions, tourism governance and smart city development run in parallel. The main focus of smart tourism initiatives are the improvement of the visitor experience and tourism intelligence, while smart city projects are oriented towards projects of social innovation and ICT testing and mobility. In both cases, smart mobility projects are significant, with ambivalent effects from the point of view of social inclusion/exclusion. In this context, the shaping of smart tourism governance that contributes to a balance between tourism competitiveness and a more comprehensive tourism policy for the benefit of citizens remains still a challenge.

Start-up tourism and the Israeli colonial project

Valentina Carraro- University of Amsterdam

Responding to widespread calls to provincialise smart city research, several researchers have recently considered how, in Israel/Palestine, smart policies and projects intersect with colonialism. This work has explored how, in this context, smartness becomes entangled with

geopolitical imaginaries that present Israel as a 'start-up' nation, miraculously prevailing over a hostile nature and a powerful but technologically-backwards Arab world.

In this contribution, I build on and extend this work by considering how smart policies and projects also support Israel's colonial project on an economic level. I focus here on the tourism sector, drawing on reports from Palestinian, Israeli and international organisations and think tanks, government policies, and promotional brochures for tourists and investors.

My analysis shows that, in this case, smartness is leveraged to support Israeli enterprises located within the West Bank, to extract value from sites formally under Palestinian control and thus to contribute to the de-development of Palestine. More broadly, I argue for the usefulness of combining political economy and postcolonial critique in the study of smart urbanism.

Smart engagement: people powering commerce or power to the people?

Hannah Devine-Wright- Trinity College Dublin

The successful design and deployment of smart cities is contingent upon engagement and social acceptance (Cardullo & Kitchin, 2019). However, user engagement is often regarded as a resource to be mined (Bourazeri and Pitt, 2018) with people are treated as data-generating objects (Lupton, 2019) or a barrier to be overcome (e.g., Batel & Devine-Wright, 2017). Humans are often designed out of Internet of Things (IoT) futures (Cherry et al., 2017) and when they are included it tends to be as passive, obedient, consumers whose behaviour can be nudged rather than citizens who can be empowered (Batty et al., 2012; Cardullo & Kitchin, 2019; Kitchin et al., 2019).

The 'Quadruple helix' is a popular term to describe citizen involvement in smart city projects. However, there has been little critique of how this concept has been applied in the context of smart districts. This paper focuses on the way in which the Quadruple Helix model has been used to frame and enact citizen engagement within two early-stage smart urban contexts, Smart Sandyford, a business district in South Dublin, and Smart Balbriggan, Ireland's youngest and most ethnically diverse town situated North of Dublin.

This paper interrogates the meaning of the citizen within the Quadruple Helix and finds that it legitimates tokenistic and instrumental approaches to citizen engagement and inhibits meaningful citizen engagement for smart and sustainable places. Recognising the importance of engagement in creating smart and sustainable places, this paper focuses on how engagement is understood and practised and recognises the importance of low-tech informal networks and 'old-fashioned' community work in smart city initiatives.

Session 3.1
Technologies Of Surveillance And Control

Automation of urban policing: Spatial|Data Justice and women's resistance against compulsory Hijab in Iran.

Azadeh Akbari- University of Twente

The paper scrutinises the intersection of data and spatial injustice in Iran by analysing the way traffic camera footage is used against female drivers with improper veiling. Considering compulsory hijab and policing of it as a spatial injustice that limits and disturbs

women's access to public places, the case study examines ways of resistance that address spatial|data injustice: firstly, a mobile phone application called Gershad that uses collective mapping to pin moral police patrols on maps by users; secondly, a social media campaign called White Wednesdays that encourages women to film and share their public strolls without hijab, their confrontations with religious pro-regime people, and videos of singing, dancing and cycling in public spaces.

Using Fraser's theory of "abnormal justice", this research draws attention to the particularities of each case of data justice; taking into account the intersections of socio-political axes of injustice in different layers of local, regional and global analysis. The paper offers a "situated" analytical framework by bringing in space as an inquisitive component and moves from a sole discussion of data justice to a more intersectional study of spatial and data justice combined. Participation in "small data" projects is introduced as one resistance strategy against injustices of big data systems, fulfilling the principle of "parity of participation" to achieve justice, especially in undemocratic political contexts.

How The COVID Crisis Stimulated the Uptake of Smart Technologies in Cities? A Systematic Literature Review

Taşkın Dirsehan, Erasmus University Rotterdam

Liesbet van Zoonen, Erasmus University Rotterdam

The outbreak of the COVID-19 pandemic forced the cities to take measures around the world. To minimize the close contact between people, new tools were introduced to people's daily lives for their businesses, education, shopping, transportation, and health services. Most of these tools are based on data-driven technology and they provide an infrastructure for smart cities. This study explores Covid-19

and accelerated the uptake of digital technologies by city governments, on the basis of a systematic literature review. We find that smart cities cope with Covid-19 primarily by using more emerging technologies such as artificial intelligence, smart camera systems, the Internet of Things (IoT), and health QR codes to track and detect people in terms of social distancing. These tools help local governments to control the pandemic. Moreover, the literature suggests that the environmental quality of various cities was improved thanks to these technologies. Even though these innovative technologies seem to help city governments and their citizens to deal with the crisis, the feeling of being tracked and the increased use of technology in this period also increases digital risks such as misinformation and privacy breaches. Moreover, the social distancing made citizens feel more isolated and individual fears emerged toward the public use of technologies. In addition to the smart city practices in the Covid era, the results of this study also provide some insights about sustainable smart cities for the post-Covid period.

Mixed and Smart Cities: The Challenges and Opportunities of Digital Applications

Regev Nathansohn- Sapir College
Lihi Lahat- Sapir College

This study explores smart city projects in "mixed" Arab-Jewish cities in Israel and their potential impact on the relations between residents from different communities. While smart city projects can reduce inequalities between residents of diverse communities and cultivate contacts between them, they can also reinforce gaps and increase conflicts. To examine the challenges and opportunities of smart city projects in "mixed cities," our research focused on digital applications implemented in the Israeli mixed cities of Jerusalem, Tel Aviv - Jaffa,

and Haifa. Using interviews with key figures as well as analysis of protocols and media publications, we examined the purposes and practices of installing CCTVs (in all three cities), a digital resident's card (in Tel Aviv), a digital welfare platform (in Jerusalem), and the use of a platform for public involvement in decision making (in Haifa).

Our analysis of these applications focused on their potential effect on the in/equality between residents of different communities, and on the contacts/divisions between them. We show that while all four applications were designed to achieve certain benefits for the residents, they were not equally accessible to all, and therefore have the potential to widen pre-existing inequalities and deepen divisions between communities. This could be changed by two complementary steps: 1) defining narrowing inequalities between communities and/or cultivating contacts between them among the goals to be pursued in designing and implementing digital applications; 2) conducting a process of meaningful participation by residents of various communities in defining their needs and the solutions for these needs.

The safeguards for building safe and just smart cities - A comparison between Finland and Nigeria

Alina Wernick, University of Helsinki
Gabriel Udoh- Europa Universität Viadrina Frankfurt
Emeline Banzuzi- University of Helsinki

We compare legal and policy measures toward human rights compliant adoption of safe smart city applications in the global North and global South through examples of Finland and Nigeria.

Safety is one of the common motivations to build smart cities, yet the safety needs and technology adoption are determined by the context of the application. Finland and Nigeria differ highly in the levels of

peace, terrorism, corruption and citizens' trust in the government. Finland is an early, and eager adopter and developer of smart city technology, whereas Nigeria has displayed hesitancy towards digital technologies.

Public safety initiatives are increasingly supported by artificial intelligence and biometric recognition systems. However, the use of these technologies comes with a risk of false positives. In the North, it has been found to display racial bias as well as replicating existing discriminatory practices in areas such as law enforcement. These risks are replicated and amplified in the South. They are accompanied by concerns over data security breaches, targeting of political opponents, corruption and others.

The EU promotes fundamental rights-driven technology regulation, with the GDPR and the AI Act proposal. Nevertheless, the solutions are vulnerable to disruptions in the rule of law and suffer from underenforcement and non-compliance. We observe that the technologies and the applicable EU legislative measures cannot be directly transposed to the global South. Astuteness to the contextual issues in the South, such as corruption, is crucial when regulating and policing safe smart city solutions. Otherwise, the risks are repeated and amplified.

The Scales and Complexities of Technology-Enabled Abuse: Towards a theory of 'abuse in depth'

Tegg Westbrook- University of Stavanger

From homes to cities, there has been a huge expansion of advanced security and safety technologies around the world, expanding surveillance in both quality and in quantity. Based on recent trends in domestic violence and state surveillance, technologies designed for enhancing safety and security are now enabling new forms of

technology-enabled abuse, the depths at which are ubiquitous and more robust as ever before. Inspired by the principles of 'security in depth' and 'scenario in depth', this paper reverses the concept to consider the 'protector' not as defending specific 'assets', but as an agent that – at different scales - controls, coerces, harasses and intimidates the 'assets' under the technological yoke of its control. It argues that enhanced detection, notification, and response aspects of smart technologies has influenced new and unique depths of abuse, which can range from abusive partners to authoritarian governments. I provide a definition of 'smart abuse' to encapsulate its scale and complexity.

Session 3.2
Resistance and Smart Cities From Below

Digital Sovereignty on the local scale. Building unexpected alliances towards democratic self-determination

Elizabeth Calderón Lüning- Weizenbaum Institute | University of the Arts Berlin

Digital sovereignty is most often discussed through a territorial lens reducing the term to geo-political ownership and control of critical digital infrastructures (Floridi 2020; Pohle & Thiel 2020). On an urban scale, however, the perspective can undergo a shift. Cities are playing an incremental role in the promotion of digital rights and in line with "locally" grounded politics (Russel, 2019), they can be growing grounds for the promotion of the need for public participation in digital policymaking and the for digital political education towards regaining democratic self-determination in the digital era. While

grass-roots resistance against extractivist and assetizing digitalized cities is still in its commencing phase, this paper wants to introduce "traditional" urban activist struggles as a possible entry point for creating alternative digital narratives. Creating language, politicizing lived knowledge and building alliances between different forms of resistance can act as basic grounds for fostering digital self-determination and autonomy through collective and democratic control. With examples from the tenant and anti-gentrification struggles in Berlin, as well as an alliance of different actors specifically engaging with participatory digital policy, we present some findings on discursive alliances that can build collective learning processes for urban digital sovereignty.

Smart cities and video surveillance: organized resistance by city dwellers

Stephanie Garaglia- Vrije Universiteit Brussel

Technology plays a vital role in the transformation of urban spaces towards becoming a smart city. Smart infrastructures are thereby used to improve the management and efficiency of these urban spaces by making the city interactive and responsive. This creates a growing network with all sorts of (in)visible subsystems that continuously try to sense what is around them. Smart (video) surveillance networks are growing, whereby sensors are used to extract and use a variety of data to alter current and future urban processes on different levels. Whereas smart video surveillance was often first introduced in the context of security measures, this later widened towards more preventive uses. In the context of Belgian smart cities, and strengthened by the pandemic, smart cameras are now also used for more 'banal' usage such as to inform sports and movement policies of local governments. These (in)visible smart

(video) surveillance networks are becoming increasingly difficult to resist for urban dwellers, as data is irrespectively extracted and used. This is creating unease and unrest among some who live in, work at, or move through the city. The paper focuses on citizen organizations that are going against this trend and aim to inform and/or involve the wider public through several different strategies. By analyzing the discourse of organizations such as Technopolice (Brussels) and Datapanik (Belgium), through interviews and several digital methods, the paper seeks to gain an insight into how they are making sense of, undergoing and/or acting upon this new and rapidly changing urban reality.

Struggle, grassroots movements and conflict as fostering dynamics for smart city development

Kristiane Marie Fjaer Lindland- University of Stavanger

Smart city concepts have become prominent roadmaps for urban development during the last decade. However, in parallel with the rising focus on digitization, big data and control, there has been a rising critique related to the challenges this poses to democracy, inclusion and power aspects of society. As a response to this critique, methods and process models for citizen inclusion have gained influence. Despite good intentions, many of the co-creation and inclusion processes that are used today in smart city projects and practices, are less productive in counteracting the challenges they are developed to address. Part of the challenge can be that they are led and controlled by the same ones that also set the formal and legitimized agenda for the urban development. Grassroot movements and emerging conflicts around specific solutions can be seen as bottom-up responses to lacking influence on societal development. Conflicts and struggle connected to urban

development are from public authorities and private investors often seen as an obstacle to the planned progress. Embedded in American Pragmatism, and especially the theories of Mary Parker-Follett on how progress and community development emerge through conflict, this paper discussed how grassroot movement and emerging conflicts around new solutions can be imperative for developing better solutions. Further, for developing more nuanced understandings of situations and for imagining the role citizens and those affected can have in realizing the smart city. This less explored understanding of democracy and community can contribute both to new ways of understanding democracy, inclusion and progress as well as how we work for realizing it.

403 Access Forbidden or: A Backend of One's Own. Hacking Spaces Toward a Cyber_Feminist_City

Maja-Lee Voigt- Leuphana University Lüneburg

To this day it remains a question of power who is granted the right to visibly take up and claim urban space; both physically and virtually. A societal and literal "Room of One's Own"" (Woolf 1929) is still not a given for people who define as women and/or queer. Rather, it is not only floor plans and cityscapes in which gendered bodies hardly find unconfined spaces or representation; discursive and online realms often turn out to be equally restrictive, patriarchally dominated, and misogynic. Additionally, as urban automation advances in an increasingly 'smarter' city, everyday processes are more and more controlled by algorithmic architectures of oppression. Repeatedly neutralized as 'objective' in public discourse, artificial intelligence systems such as facial recognition software, however, often function as urban gatekeepers: they decide who is allowed to occupy public space

and who, like Women of Color, is categorized as 'suspicious' - and thereby determine social participation.

Yet feminist hackspaces resist these heteronormatively programed technologies. Following five months of ethnographic research on German-speaking cyberfeminist collectives and their (gender) hacking practices in 2021, my contribution asks to what extent models like those of a smart city do justice to the lived space and diverse realities in the city. My analysis shows how hackspaces attempt to increase accessibility to interfaces, (digital) spaces, and decision-making processes by sharing their tech-knowledge through open source solutions, educative illustrations, and visions of otherwise urban futures. Their activism demonstrates how (urban) hacking is a crucial practice to break with non-democratically controlled digitalization processes: in favor of a cyber_feminist_city for all.

Session 3.3
The State as Driver of the Smart City Discourse

Institutional Memory of Developmentalism: An Evolutionary Economic Interpretation of Smart City Export Policies in South Korea

Jung Won Sonn- University College London
Jaemin Song- Seoul National University
Chanho Kim- Chung-Ang University
Myungje Woo- University of Seoul

This paper sheds lights on divergence of smart city practices by looking at the role of institutional inertia and policy mobility in making of South Korean smart city policy. Theoretically, this paper is combines public choice theorists' views of bureaucrats as utility-

maximizing agents and evolutionary economists' notion of routine as the gene of organisation. Civil servants, though self-interested, are not omnipotent in pursuing their self-interest. During such pursuit, contrary to the assumptions of public choice theorists, the means are not always clear; thus, civil servants must rely upon proven models of success. In the South Korean government, one of the proven formulae is "export." Traditionally, exports have been thought responsible for South Korea's economic success. Under these circumstances, it is not surprising that bureaucrats often use exports as the nominal goal of the policies they push. This tendency spreads to departments and divisions that are not logically related to exports. Smart city policy is a good example. In most countries, a smart city is an application of IT to solve various problems faced by cities. In South Korea, a large part of the smart city policy is related to the preparation and promotion of related industries aimed at going abroad and selling their products and services. The data for this study come from three sources: 1) participation in the planning of two export-oriented smart city policies, 2) in-depth interviews and 3) key policy documents.

Variegated Pathways towards Smart Urbanism: Urban Data Regimes under the Smart Cities Mission in India

Marie-Hélène Zerah, French National Research Institute for Sustainable Development
Gaurav Mittal- Centre for Policy Research, New Delhi
Barathi Nakkeeran- Centre for Policy Research, New Delhi

The nature of socio-spatial justice embedded in the rolling-out of Smart Cities in India calls for a reflection at the crossroads of the idea of disruption (Stiegler, 2019) and a historical institutionalism approach (North, 1990). Empirically focused on three Indian states of

Karnataka, Madhya Pradesh, and Punjab, this paper traces the historical pathways leading to the introduction of the Smart Cities Mission (SCM) in 2015. The paper argues that the dialogical relationship between data-driven urbanism and institutional rescaling under SCM is embedded into subnational histories of construction of a collective identity (Singh, 2015) and the contemporary adoption of neoliberal municipal reforms (introduction of private actors, e-governance and human resources reforms) under earlier urban development programs (Zérah, 2020). As a result, we notice the emergence of welfarist and exclusive variegation of 'urban data regimes' under SCM at provincial scales.

North, Douglass C (1990), Institutions, Institutional Change, and Economic Performance. Cambridge and New York: Cambridge UniversityPress.

Singh, Prerna (2015), How Solidarity Works for Welfare : Subnationalism and Social Development in India. New York: Cambridge University Press.

Stiegler, Bernard (2019), The Age of Disruption: Technology and Madness in Computational Capitalism. Polity Press.

Zérah, Marie-Hélène (2020), Quand l'Inde s'urbanise. Services essentiels et paradoxes d'un urbanisme bricolé. La Tour d'Aigues: Editions de l'Aube. 320."

In the shadow of Smart City: discourse, practice, and the contested promise of urban technologies

Yawei Zhao- University of Manchester

In light of the broader critiques of Smart City surrounding its technocratic characteristics, testbed configuration, security and privacy implications, and so on, this paper zooms in to look at the discourse and practice of urban technologies that are labeled as constituents of Smart City. By drawing on four examples in China – two security systems, an educational app, and a ride-hailing platform – that involve public and private sectors, this paper first explicates the

difference between the promise of technologies and their actual performance when rolled out locally. I argue that, from promotion to operation, urban technologies have been repurposed to fulfill different interests, which are not necessarily associated with big corporations as usually perceived. Moreover, this paper brings in 'ordinary' voices that are inadequately represented in the scholarship to account for the contradictions arising from the introduction of technology-driven projects at the very local and everyday level. These voices demonstrate that urban residents who are actually influenced do not see these projects within the Smart City framework but merely as stand-alone and purposeful operations that sometimes can contradict their interests. In other words, while Smart City remains a buzzword in policy and scholarly discourses, it does not concern those in the discussed examples who care more about the implications and effects of specific projects. This paper thus calls for more situated and nuanced research on urban technologies instead of lumping them under the label of Smart City.

Smart Spectacular Urbanism of Asian New Capital Cities

Umar Al Faruq- King's College London

The phenomenon of the smart new capital city is increasingly a subject of research in smart urbanism. By framing this development as a form spectacular urbanism its underlying processes become clearer. Foregrounding Indonesia's new capital Nusantara, this paper explores how the dynamics of this greenfield smart urbanisation intersect with spectacular urbanism and state-capital-land relations. It accounts for extrastatal processes that involve transnational movements of capital and expertise between Asian cities in several ways. First, it explores the utilisation of synecdoche in spectacular urbanism as a political technology: as a spatial imaginary in which the

capital city is representative of the whole country. This means that the (re)production of unspectacular peripheries is necessary as they make intelligible the spectacular core. Secondly, a focus on Asian urbanisation is timely as the relationship between the state, (financial) capital, and land politics in the region is becoming emblematic of a wider statist turn towards finance-drive urbanisation. Thirdly, smart city initiatives constitute this spectacular urbanism, but they are also part of Asia's growing financialisaton of urban development. This turn sees real estate-based driven growth become a major strategy adopted by states in extending its powers and autonomy to increase control of land politics and monetisation. The combination of potential real estate investment returns and the allure of spectacular smart urbanisms animate state actions vis-à-vis the planning of Nusantara. The spectacle of the smart new capital city thus presents a focal point in thinking geographically the financialisaton of Asian urbanisation and its broader sociopolitical effects.

Smart cities for 'the privileged few'

Marwa Dabaieh- Malmö University

The New Administrative Capital (NAC) is a large mega project for a new capital city in Egypt that has been under construction since 2015. It is located approximately 45 KM from Cairo the capital city. NAC is expected to house embassies, government agencies, the parliament, 30 ministries, top-level residential compounds where round 6.5 million people will be living there when completed. It is not only to host main administrative buildings to be relocated from Cairo to NAC as a solution to decongest load from the old city, but also new capital is being sold as an effort to tackle pollution by creating more green lungs and open water spaces which is estimated to be twice the size of New York's Central Park. On one hand, this mega

project is an opportunity to create much-needed jobs and rejuvenate Egypt's core industries specially construction industry. While on the other hand price per square meter for residential units does indicate it is the new capital for those who can afford 'the privileged few'. The talk will discuss the paradoxical acts of investment in a new capital while the old Cairo is suffering from neglect and gentrification. It will shed light on the new liberal economical model in Egypt after 2011 revolution and right to the city that was a main call during revolution time. The talk will also discuss what is meant by smart cities for equity and for power in connection to the main administrative buildings that demonstrate a clear fascist architecture.

Session 3:4
Governing Challenges of New Technologies

Urban Public Spaces: A bottom-up process for systematization of indicators for their governance and management.

Teresa González Gómez - University of Huelva
José Andrés Domínguez Gómez- University of Huelva

In recent decades, a greater consensus has emerged on the impact of the dehumanization of public spaces and the loss of quality of life in cities. In parallel, the popularity of Smart cities both at the political and social academic levels seems to bring inclusive and innovative solutions to the complexity of urban problems. However, the multi-dimensionality and dynamism of the urban challenges suggest more deliberation on the management and governance of public spaces before backing the development of smart city models. This challenge brings forth an open research line among governance theories, and

the contextual landing on institutional design, management, as well as on the nature and relationship between stakeholders.

In the light of recent conceptual or operational developments on urban governance and governance of public spaces, this communication provides a systematization of indicators for the management of urban public spaces from the Spanish southwest with a case study in the city of Huelva. The industrial and economic development in the 2nd half of the s. XX implanted fragmented urbanism in the city and social perception as the plundered and devalued city. The qualitative methodology is based on interviews with key actors and focus groups on representative public spaces of each district of the city, analyzed using Atlas.ti 9.1.2.

Vertical Selection: How dynamics of urban governance shape smart cities

Hannah Holmes - University of Cambridge
Richmond Juvenile Ehwi- University of Cambridge
Gemma Burgess - University of Cambridge

Smart initiatives are now widespread in cities across the UK. There is considerable variation, however, in the aims of these initiatives across different cities. While some have selected verticals (or areas of focus) such as health care and wellbeing, others focus on air quality and traffic management, or digital connectivity and energy efficiency, along with a host of other verticals. To explain this variation, this presentation interrogates the dynamics of urban governance which lead to the selection of specific verticals. It draws upon semi-structured interviews with council officers, local politicians, and others with a knowledge of smart city governance across seven cities in England. The research highlights how the arrangements of governance embedded in these cities – and where smart city

governance sits within the overall local governance structure – shapes the smart city, not least through influencing the verticals which are selected. It considers how the decision-making process in the selection of areas of focus is variously centred around existing city services; is understood as pragmatic; emerges from urban entrepreneurialism, and is driven by national and global policy agendas and events. Case study detail will be drawn upon to highlight how specific local circumstances and approaches to governance lead to the development of smart initiatives in locally contingent ways. How smart cities are governed, who is involved in this governance, and how and why particular agendas for local smart city initiatives emerge have clear implications for urban justice.

The City as a Licence

Martijn de Waal- Amsterdam University of Applied Sciences
Gabrielle Ferri- Amsterdam University of Applied Sciences
Inte Gloerich- Amsterdam University of Applied Sciences
John Vines- The University of Edinburgh
Chris Elsden – The University of Edinburgh

This contribution explores the role of distributed ledger technologies in the governance of (smart) cities, from a perspective of the right to the city and the urban commons.

In the past few years, a number of authors have expressed the capabilities of distributed ledgers to become the administrative backbone of civic economy, peer-to-peer and urban commons projects. (Antoniadis 2018; Boiler 2015; Pazaitis et al. 2017; Rozas et al. 2018 & 2020; Pitt & Diaconescu 2014, Bauwens & Pazaitis 2019). A combination of affordances of DLTs, incorporated in broader socio-technologicial 'smart city' or 'smart citizen' assemblages, could play a role here. DLTs allow for the administration of (micro-) transactions on

a ledger, making use of automated data collection through sensing devices. These transactions can be automated through so-called smart contracts that combine data processing with systems of identity, reputation, and rights management (Cila et al. 2020).

However, such systems are more than mere accounting tools for the urban commons. Through their 'algorithmic governance' (Smith 2020, Yeung 2018), they also come to play a role as regulators for the communities that they administer. Particular values, governance structures and (informal) social dynamics are encoded into their smart contracts, giving or withholding citizens the right to the use and production of particular urban resources and social networks.

In this contribution, we further develop the lens of 'the city as a licence' (Elsden et al. 2019, Gloerich et al. 2020) to foreground practices of value-based rights management in Civic DLT applications, connecting discussions on smart city and urban governance with the broader discourse on the right to the city (Kitchin et al. 2018, Cardullo et al. 2018, Cardullo et al. 2019).

Framing the interactions these DLT based systems make possible from a perspective of licences rather than 'the city as a service' (Hwang 2008) shifts the perspective from consumer convenience or noble civic goals to questions about equity, privilege, and power. What does it mean if civil society and civic life is increasingly governed through algorithmic systems that give out 'licenses' to make use of local resources? What are the underlying rule sets, and who has the power to determine and alter them? What room is left for interpretation, negotiation and exceptions when rules are encoded in software? And what new governmentalities does such a system produce?

Blockchain urbanism – the trusted smart city?

Emil Pull- Malmö University

Urban actors are increasingly promoting efforts into smart city solutions through the concept of blockchain urbanism. By way of example Marsal-Llacuna (2018) says of blockchains that it is the next network for cities after IoT (Internet of things) and "a technology [with the potential] to universally deliver urban governance in a more decentralized, bottom-up and citizen-centric manner" and that it holds promise to cure urban democratic deficiencies, turn urban decay to prosperity, and address sustainability issues (ibid). In a way, smart city and blockchain city narratives operates along slightly different imaginaries. Where smart cities promise to solve social, environmental, and economic problems in and of the city via an array of smart tech solutions, the blockchain narrative is more concerned with how a singular technology (blockchains) holds a radical emancipatory potential for the city if adapted alongside, or as the foundation behind, other smart city technologies. This paper will address the discursive and narrative aspect of blockchain city initiatives: how in detail do the genealogy of the blockchain city look, what are the problems blockchain actors, local governments and companies seek to address, and what dangers, pitfalls and blind spots can be identified in the discourse and promises. The question will be examined through a study of grey literature from the EU (for instance through publications of EUBlockchain Observatory and Forum, a European commission initiative) and the UN (for instance through publications of United 4 Smart Sustainable cities (U4SSC), a UN initiative coordinated by IUT, UNECE and UN-Habitat.

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