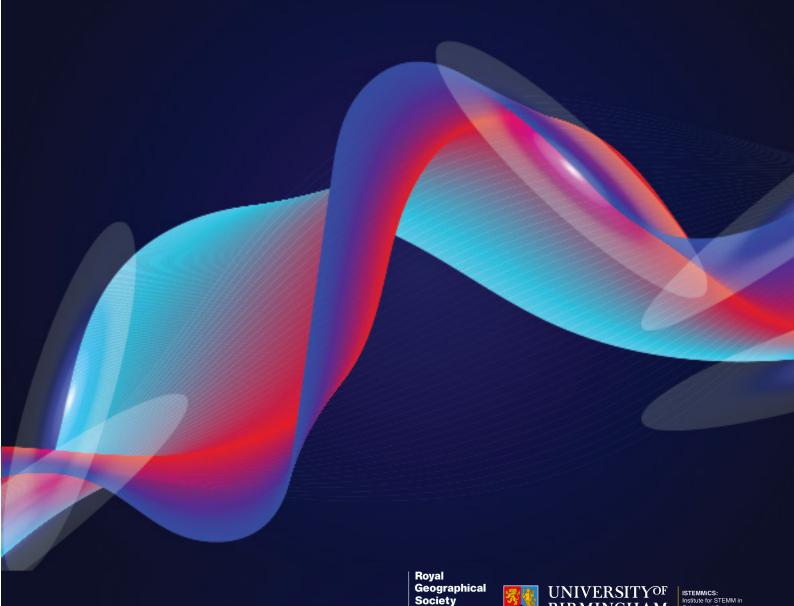
# MOBILITIES & THE DIGITAL

DIGITAL GEOGRAPHIES RESEARCH GROUP SYMPOSIUM

21.06.24

ELM HOUSE, UNIVERSITY OF BIRMINGHAM



# **AGENDA:**

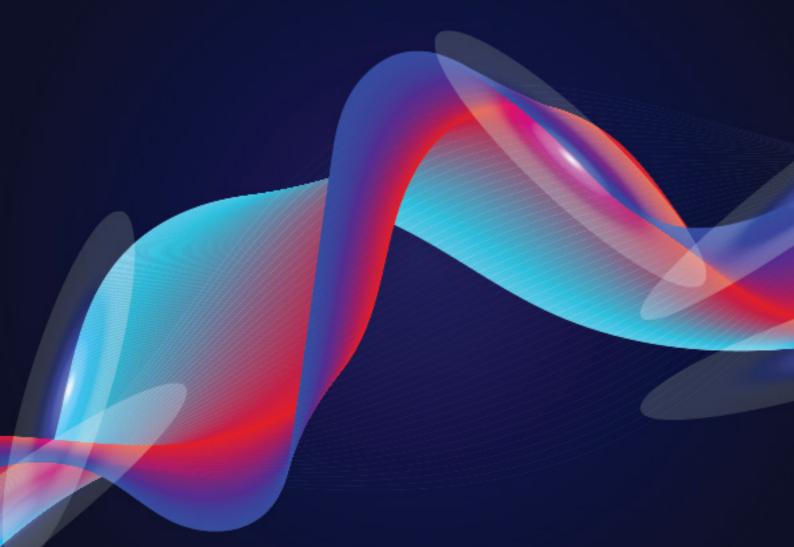
Welcome b	y the DGRG	3
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Welcome all to the Annual Symposium of the Digital Geographies Research Group of the Royal Geographical Society.

We started this group to explore into how the digital is changing our society, economy, environment, and culture. Dorothea Kleine, Gillian Rose and Phil Jones got things rolling in 2016 as part of an RGS Working Group, and by 2018, we had grown into a full-fledged Research Group. We stand alongside many digital geography groups around the world including Germany's Digitale Geographie Netzwerk, the IGU's Commission on Information, Innovation and Technology, and the AAG's Digital Geographies Specialty Group and we are proud to be part of the global research in this field.

Yet there is much work to be donein examining how the digital continues to reshape our world. The tech sector is built upon continued innovation, with the rapid emergence of new challenges that invite scholarly attention from digital geographers and beyond. This year's DGRG Annual Symposium explores one of these areas: mobilities and the digital.

We are very excited by the diverse range of ideas and perspectives being presented by the speakers at this event and we hope that our participants enjoy a stimulating and thought-provoking day of discussions. As Chair of the Digital Geographies Research Group, I'd like to thank all of the speakers for taking part as well as Adam Michael Packer and the symposium organising committee for their fantastic work in putting the event together.



Dr. Tess Osborne

Chair of the Digital Geographies Research Group I want to wish everyone a warm welcome to the University of Birmingham on behalf of the Institute for STEMM in Culture and Society (ISTEMMiCS). We are a multidisciplinary team of humanities and social science researchers based in the School of Engineering interested in the role of science, technology, engineering, mathematics and medicine (STEMM) in diverse societies. We do so through a range of research programmes from the Future Flight Social Science research programme, the International Research Network for Science and Belief in Society, and the Birmingham Plastics Network.

In addition to my role as a Research Fellow in ISTEMMiCS, I am the Events Coordinator for the Digital Geographies Research Group of the RGS. I have had the honour of putting together this year's symposium on Mobilities and the Digital. The symposium theme spoke to my immediate interest in innovations including automated and robotic technologies, connected urban mobility and digital platforms, and the differentiated experiences of such technologies. It has truly been a delight to see the Call for Submissions generate the wide range of contributions you will see in this programme that crosscut my interests as well as those of the DGRG committee.

Whether you are joining us in person or online, I hope you find this year's Digital Geographies Research Symposium as welcoming and friendly as I have personally experienced throughout my research career. As Events Coordinator, I would like to extend thanks to Tess Osborne, Sammia Poveda, Daisy Curtis, Harrison Smith, and Olivia Fletcher for their hard work supporting the organisation of this symposium.



**Dr. Adam Michael Packer**Events Coordinator | Digital Geographies
Research Group

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#### Do you want to get involved with the Digital Geographies Research Group?

The Digital Geographies Research Group holds its Annual General Meeting during the Royal Geographical Society annual conference (Tuesday 27th to Friday 30th August 2024). This year there will likely be openings for a number of positions on the committee. Keep an eye on the DGRG mailing list for further information and calls for applications.

#### Subscribe to the DGRG mailing list

If you would like to receive updates from the RGS Digital Geographies Research Group and its researcher community, then subscribe to our ListServ via digitalgeogrgs@jiscmail.ac.uk.

# Schedule

9:00-9:20:	Registration		214/5 & G05	
9:20-9:30:	Welcome and Introduction		214/5 & Online	
9:30-10:30:	Keynote:	<b>David Bissell</b> Being present for digital geographies	214/5 & Online	
10:30-10:45: Coffee & Tea Break G05				
10:45-12:05: Parallel Paper Session A				
	A1: Embodiment & Affordances		214/5 & Online	
		<b>Yixuan Zhang</b> Interfacing Commons: The Influence of Emerging Technologies on Everyday Ecological and Community Dynamics.		
		Kenneth Y T Lim, Bryan Kuok and Samuel C X Li Exploring the affordances of mixed reality in the design of contexts of learning through embodied cognition.		
		Hossein Derakhshan Sounds, Spaces, Truths: The socio-spatiality of algorithmic listening.		
		<b>Gillian Rose</b> Embodying digitally-mediated urban life: flight, pleasure and urban animation		
		des and Interactions with the Digital	G08 & Online	

## Michael Sugiyono Susanto

Beyond Transportation: Analyze Human Behaviour Change around Jabodetabek Through Online Platforms

#### Ignacio Pérez

Heterogeneous Engineering and Big Data: The Role of Boundary Spanners in Santiago's Public Transport

## Maryam Altaf Malik

Gendered Mobilities: A case of platform transport tracking technologies in Lahore, Pakistan

#### **Eve Stowe**

Walking in 'elliptical aperture': promissory objects and ambivalent attachments

12:05: Lunch G05 13:00-14:20: Parallel Paper Session B 214/5 & Online **B1: Digital Mobilities** Jordan Frith The rise, fall, and rise again of QR Codes: Bridging the digital/ physical divide through new mediated mobility practices. Markus Roos Breines & Michael Gallagher Rethinking mobilities through the digital: signals, data and devices Rob Kitchin, Juliette Davret, Carla Kayanan & Samuel Mutter Data mobilities: Rethinking the circulation of data. Clancy Wilmott Mobile Mapping: Cartographic Digitalities in Settler-Colonial Spaces **B2: Digital Spaces for Social Interaction** G08 & Online Reena Tadee, Patrick Sakdapolrak, Harald Sterly & Raffaella The roles of ICTs in the fostering of translocal aspirations and capabilities to migrate: the case of labour migrants from Thailand to South Korea Malene Rudolf Lindberg, Marie Steder & Sirid Bonderup Digital Placemaking Amidst Reduced Physical Mobilities: Belonging to the Spaces of Everyday Life during the COVID-19 Pandemic 214/5 & Online Ruth (Lute) Faleolo Pasifika Well-Being Mobilities: Disruptions and Transformations through Tā (time) and Vā (space) Si Jie Ivin Yeo The dashboarding of care: Conduct, coordination, companionship ...... 14:20-14:45: Tea & Coffee Break ...... Stevienna de Saille & Fern Elsdon-Baker 14:45-15:45: Keynote Panel 214/5 & Online Reflections on engaging technological innovators with social science perspectives and insights 16:00-17:00: Book Panel Editor-Meets-Critic: Federico Cugurullo, 214/5 & Online Ivin Yeo, Jun Zhang & Rob Kitchin Artificial Intelligence and the City: Urbanistic Perspectives on AI ..... 17:00: Closing remarks Tess Osborne & Adam Michael Packer 214/5 & Online

# Keynotes



### Professor David Bissell

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David Bissell is Professor of Human Geography at the University of Melbourne and a Fellow of the Academy of Social Sciences in Australia. David is a cultural geographer who undertakes qualitative research on mobile lives and technological futures. His current and recent projects explore the

impact of digital on-demand mobile work on cities; how automation is changing workplaces; and how households respond to mobile work practices. He is author of *Transit Life: How Commuting Is Transforming Our Cities* (MIT Press, 2018), and co-editor of *Negative Geographies: Exploring the Politics of Limits* (U Nebraska Press, 2021), the *Routledge Handbook of Mobilities* (2014), and *Stillness in a Mobile World* (Routledge, 2011). He is managing editor of Social & Cultural Geography.

## Being present for digital geographies

The recent surge in working from home prompts a re-evaluation of foundational concepts in digital geographies concerning the interplay between virtual presence and face-to-face presence. In this paper, I explore how working from home reshapes our understanding of different forms of presence. Previously, digital geographers have typically viewed shifts in the feeling of being present through the lens of technological meditation. However, I propose that understanding these shifts in terms of attention is a crucial but often overlooked aspect of presence. Drawing on fieldwork conducted in Melbourne, I explore how remote workers navigate presence in various contexts: work tasks, interactions with colleagues, and engagement with others. These interactions involve different interplays of attention and, importantly, dissociation. I argue that the dissociative dimensions of being present have far-reaching political and ethical consequences—and can provide us with clues about how socio-spatial relationships concerning work and home life are being reconfigured in the wake of the pandemic.



#### Dr Stevienna de Saille

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Stevie's research interests lie in the nexus of science and technology studies, social movement theory and heterodox economics, all through an intersectional lens. Stevie is currently leading the 'Human Futures' theme in iHuman, where she is developing a programme of research on Robots in a Human Future and continues to publish in the area of human genome

editing. She was PI on the multidisciplinary project 'Improving Inclusivity in Robotics Design' and is currently research lead on the UKRI-TAS pump priming project 'Imagining Robotic Care'. She is on the Executive of iHuman and Sheffield Robotics and continues her research on Responsible Stagnation as a founder member of the Fourth Quadrant Research Network, which considers responsible innovation through the lens of steady state economics as a way of maintaining social prosperity in a state of permanent slow growth. Stevie is also a certified facilitator in LEGO Serious Play, which she uses for research (presently as part of Imagining Robotic Care), teaching, and as a consultant on embedding responsible research and innovation into science and engineering projects.



### Professor Fern Elsdon-Baker

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Professor Fern Elsdon-Baker is the UKRI Future Flight Challenge Social Science Research Director and the Director of the research Institute for Science, Technology, Engineering, Mathematics and Medicine in Culture and Society (ISTEMMiCS) at the University of Birmingham. She is a

transdisciplinary researcher with a background in science studies who leads a portfolio of research projects in the UK and internationally which draw on a range of approaches and methodologies including qualitative and quantitative sociology, governance and political sciences, social and experimental psychology, media and communication studies, science and technology studies, transport studies and the history and philosophy of science.

Her current primary research focuses include: emerging technologies in society; inclusive innovation; perceptions and trustworthiness of science and technology; and communication of/engagement with science and technology in diverse and pluralistic societies. She has previously developed new conceptualisations of the role of social identity and social projection in relation to the ways in which individuals, groups or communities respond to or perceive STEMM in the UK and Internationally. Prof Elsdon-Baker and her team are now building on this work, developing new modes of engagement with communities, innovators, decision makers and wider publics upstream of technological innovation.

# Editor Meet Critics Book



Cugurullo, F., Caprotti, F., Cook, M., Karvonen, A., McGuirk, P., & Marvin, S. (Eds.). (2023). *Artificial Intelligence and the City: Urbanistic perspectives on AI*. Routledge



This book explores in theory and practice how artificial intelligence (AI) intersects with and alters the city. The contributors draw upon theories and methods from urban geography, planning, architecture, science and technology studies, sociology and political science to examine case studies of autonomous vehicles, urban robots, platforms, algorithms, and city brains. The findings reveal the multitude of repercussions that AI is having on society, infrastructure networks, governance processes, and urban transitions. Contributors also examine how the city, far from being a passive recipient of new technologies, is influencing and reframing AI through subtle processes of coconstitution.

# **PAPER ABSTRACTS**

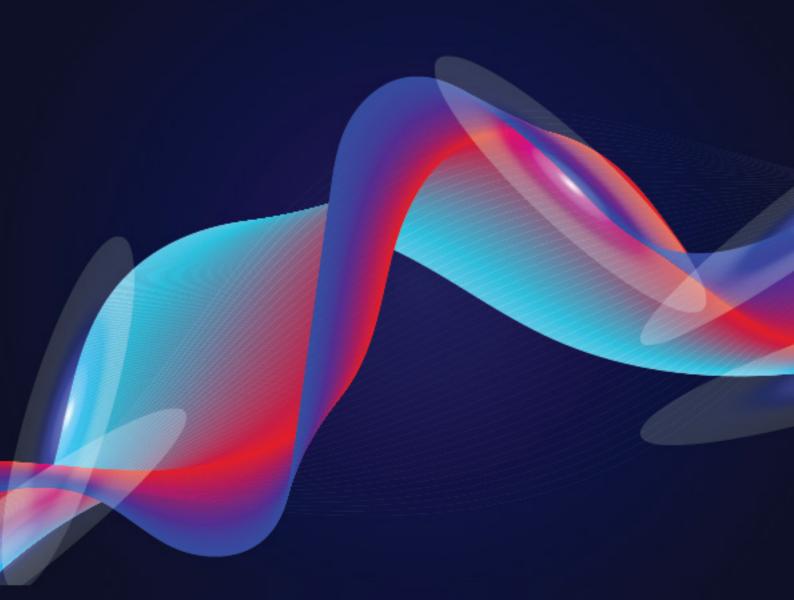
A1: Embodiment & Affordances

A2: Transport Modes and Interactions

with the Digital

**B1: Digital Mobilities** 

**B2: Digital Spaces for Social Interaction** 



# 10:45-12:05: A1 Embodiment & Affordances

# Interfacing Commons: The Influence of Emerging Technologies on Everyday Ecological and Community Dynamics - **Yixuan Zhang**

In an era where digital interaction seamlessly integrates with physical environments, technologies like AI, AR, and Location-Based Services (LBS) are not only augmenting but also fundamentally reshaping public spaces and natural environments. This paper explores the innovative fusion of these technologies in the context of 'Wired Wild', a project that exemplifies the integration of digital and physical realms through the engagement of multiple species, community participation, and enriched environmental interaction. Utilizing AI and algorithm-driven narratives, 'Wired Wild' offers a unique narrative of public memory and interactive storytelling where users experience augmented realities that blend historical data with ecological insights. The application of AR and LBS technologies facilitates a layered understanding of space, encouraging users to explore and interact with both visible and invisible elements of ecosystems (Kitchin, 2014). This technological mediation in everyday life emphasizes a multispecies perspective, advocating for an inclusive approach to urban and natural landscapes that respects and incorporates the needs of all life forms (Haraway, 2016). Moreover, the project harnesses community participation to alter and enrich public commons, suggesting that collaborative digital-physical initiatives can significantly impact public spaces' social and ecological dynamics (Latour, 2005). Through a participatory framework, it leverages collective memory and local knowledge, intertwining them with data-driven insights to foster a more profound connection between individuals and their environments (Tsing, 2015). This paper argues that such integrations of AI, AR, and LBS are not merely enhancements to passive recreation but active redefinitions of mobility, interaction, and belonging. By examining 'Wired Wild', we illustrate how algorithms and digital technologies are not only tools of observation but also instruments of engagement and transformation in the reshaping of everyday life and movements within public and natural spaces.

Exploring the affordances of mixed reality in the design of contexts of learning through embodied cognition - **Kenneth Y T Lim, Bryan Kuok & Samuel C X Li** 

In the course of a typical day, we traverse our respective campuses several times, sometimes being exposed directly to the elements, while at other times in the shade. The paths we take reflect our tacit responses to such exposure. Through our own bodily experience, we therefore develop over time a textured map of our respective campuses which - in turn - influences our decision-making in subconscious ways. While the cost of high-end headsets such as that released by Apple in 2024 remain high and therefore mitigate against widespread adoption in contexts of learning, the fact that the company has used the headset to advance a new paradigm of computing – which it calls 'spatial computing' - merits examination by the community of geographers. This paper represents an early attempt to do so, in terms of their affordances in the design of contexts of learning through embodied cognition. Be they considered a spatial computer or a mixed reality headset, the devices lend themselves naturally to the notion of embodiment, in that our auditory and visual sensory inputs are augmented by the affordances of whatever apps we are using, but also that the apps can be designed to have a certain degree of geospatial permanence within the augmented world. We have termed this approach Learner-Generated Augmentation (Lim et al., 2018), because it describes activities in which the learners are given opportunities to augment their local environments – such as through annotating in Augmented Reality - thereby giving teachers insight in to which aspects of their local environments students find significant and meaningful. The elements in their environments which novices might choose to annotate would be different from those which the teacher (as domain expert) might choose. In the hands of a skilled teacher, such differences represent rich opportunities for discussion and mutual learning.

Sounds, Spaces, Truths: The socio-spatiality of algorithmic listening -

## Hossein Derakhshan

This qualitative paper investigates how a prevailing mode of consumption, mass automated personalization, combined with the rise of private listening reshapes everyday experiences of collectivity through reconfiguration sociality and space. Extending the media domestication (Silverstone, Hirsch, & Morley, 1992) approach, it investigates how Spotify, as a mobile and automated media, is integrated into everyday lives of the young people in London in a process which I call double domestication: taming unfamiliar (and wild) sounds through algorithmic personalisation, while mitigating the wildness of the unfamiliar urban space through a domesticated sonic bubble.

The project utilizes an ethnomethodological breaching experiment (Garfinkel, 1967), coupled with semi-structured interviews and diaries, to disrupt Spotify's algorithmic personalization with two goals: to enhance users' awareness of their unique and individual experience of Spotify, and to account for when, where, and why they avoid automatically curated playlists and how these decisions are linked to urban spaces.

The broader of concerns of this research is captured by the notion of 'society-of-one', which revisits the questions which 'filter bubble' (Pariser, 2013) raises, but failes to answer because of its reductive account of humanity as a disembodied mind. It reiterates concerns about societal consequences of a kind of mass personalization that affects bodies in the city as well as minds via technologies such as self-driving cars, mixed-reality headsets and glasses, mobile listening devices and other wearable tools, etc. Mass personalization poses a twofold challenge to the modern liberal democratic order that aspires to autonomy and solidarity through predictive as well as fragmentary processes. It generates an emerging order based on minimum autonomy and maximum fragmentation, thereby posing a serious challenge to the foundations of democracy, justice, and solidarity.

# Embodying digitally-mediated urban life: flight, pleasure and urban animation - **Gillian Rose**

This paper will interrogate the mediation of everyday urban life through some recent animated advertisements. In recent years, urban scholarship has paid considerable attention to two aspects of the digital mediation of urban life: the extraction, processing and commodification of data from urban environments; and the reconfiguration of urban labour induced by the gig economy. The focus on the technological and economic drivers of these shifts is important, but has largely neglected the imaginary constitution of life in digitally-mediated cities. This paper will explore some of those imaginaries, as articulated in a number of recent animated adverts selling things such as car insurance, a music streaming app and a banking app, all of which show human bodies in urban spaces. These bodies are visualised in particular ways, and the value of the digital product being advertised is shown by the bodies taking pleasurable flight through a volumetric city space, rendered visually by digital animation. Rather than propose that these images are simply ideological, I will suggest that they are productive in both their visual content and their aerial mobility. Their content continues to articulate the conventional photographic mediation of feminised and racialised bodies as surfaces especially able to articulate meaning and pleasure; their digital animation, however, adds to this a corporeal malleability and (aerial) mobility that photography cannot. The paper explores the consequences of this visualisation for the everyday life that is anticipated in digitally-mediated cities, and proposes that challenging it must consider not only the politics of visibility, but also of spatiality.

# 10:45-12:05: A2 Transport Modes & Interactions with the Digital

Beyond Transportation: Analyze Human Behaviour Change around Jabodetabek Through Online Platforms - **Michael Sugiyono Susanto** 

The pervasive use of online platforms for mobility purposes has greatly influenced behavioural patterns in the urban realm. With technological advancements, they have become prominent in Indonesia, especially in the greater Jakarta Metropolitan Area "Jabodetabek" (Jakarta, Bogor, Depok, Tangerang, and Bekasi). This paper aims to analyse behavioural changes observed in Jabodetabek due to the adoption of online platforms for mobility purposes. It focuses on the analysis of motorcycle taxi services, which have expanded their offerings beyond transportation to include grocery shopping and food deliveries.

Online platforms have transformed the way people interact with transportation options in Jabodetabek. These platforms provide convenience, efficiency, and transparent pricing, replacing traditional motorcycle taxi stations with the ability to locate nearby pick-up and drop-off points. The social interaction between drivers and passengers on these platforms creates a sense of community and validates the behavioural change towards using motorcycle taxis.

Additionally, these platforms have introduced the option of grocery shopping without physically visiting the store, which saves time and effort for individuals in a congested area like Jabodetabek. Furthermore, the visibility and access provided by online platforms benefit both consumers and food vendors. Consumers can conveniently access a wide variety of food options, while smaller food businesses can expand their consumer reach.

However, the adoption of online platforms also presents challenges and considerations for policy and planning. These potentially include additional traffic congestion, safety and security concerns, neglected public transportation options, diminished sense of place and community connection, environmental sustainability issues, and job losses in certain sectors.

Hence, this paper analyses how relevant behavioural change for policymakers can promote the sustainable integration of online platforms in urban development. Understanding the impacts and challenges associated with online platforms can help shape effective policies and planning initiatives to create an improved urban experience in Jabodetabek.

# Heterogeneous Engineering and Big Data: The Role of Boundary Spanners in Santiago's Public Transport - **Ignacio Pérez**

This paper examines the transformative effects of big data on the expertise of transport engineers in Santiago de Chile, underscoring the reconfiguration of professional boundaries and power within urban transport management. The advent of big data in the city's public transit system has challenged transport engineers to revisit and refine their approach to boundary work (Gieryn, 1983), leveraging their unique position to mediate between traditional engineering practices and the emerging demands of big data. Such involvement not only demonstrates their versatility but also underscores their pivotal role in facilitating the adoption of big data, thereby consolidating their established authority within Santiago's public transport infrastructure.

The analysis reveals that by acting as boundary spanners (Levina and Vaast, 2005), transport engineers navigate the complex interface between technological advances and operational needs, consequently redefining their domain of expertise. Their efforts to connect different areas of knowledge among various stakeholders show a deliberate use of expertise to maintain and enhance their authority, indicating wider shifts in the power dynamics, the role of expertise, and the use of technology in managing urban infrastructure.

This research, grounded in the sociotechnical context of Santiago, underpins how expertise contributes to incorporating data-intensive technologies into public transport. It highlights the importance of established disciplines and the distribution of power. This case study offers a perspective on how expertise is evolving with digital technology, marking a significant shift in urban infrastructure management and operation.

# Gendered Mobilities: A case of platform transport tracking technologies in Lahore, Pakistan - **Maryam Altaf Malik**

Since 2016, platform transport services have continued to emerge, evolve, and reconfigure the transport sector in Lahore, Pakistan. The changing organisational structures of digitised workplaces and consumption spheres have enabled individuals to carry out tasks and complete transactions in different places and at different times, often remotely managed through a range of data collecting, sorting, and analysis technologies. These technologies reconfigure how users (drivers and passengers) perform and behave at their best, past-present-future selves. This paper examines the legitimisations provided by platform transport operators for employing tracking technologies such as live-tracking, subsidies, rating systems, rewards, and recognition schemes. It explores these within the sociocultural, religious, and spatial context of the research site, illustrating how the gendering of mobilities is influenced by interactions among platform transport operators, users, and their respective practices. Through expert interviews with two high-level management personnel from six platform transport companies, two primary legitimisations are identified: firstly, the pursuit of increased profits, and secondly, the enhancement of user security. Operators argue that their services partially address the deficiencies in public transport provision; stimulate employment; and consequently; · · · · · expand their market share. Additionally, they assert their role in mitigating potential harm and fraud by implementing safety and protection mechanisms for all users. However, the gendered implications of engaging with tracking technologies facilitated by platform operators in Lahore's urban environment are overlooked. The paper concludes by prompting inquiries into these implications, including the gendered social sorting of individuals by age, class, and other identifiers, as well as the influence on behaviour through self-regulation, moral policing, trust-building, compliance, resistance, and other dynamics.

Walking in 'elliptical aperture': promissory objects and ambivalent attachments - **Eve Stowe** 

This paper invites a re-imagining of the pedestrian in ways that attend to the digital technological transformations of everyday mobilities, moving beyond the idea of the walking body as a bounded, rational, autonomous human entity and towards a broader conceptualisation of the pedestrian as human-device-data assemblage. Through the prevalence of wearables such as smartphones and smartwatches, algorithmic digital technologies now mediate the very formation of the pedestrian, shaping walking rhythms, embodied orientations, and affective responses. Informed by auto/ethnographic research with the queer community in SE England, this paper explores the experiential dimensions of walking-with digital technologies for those who might feel 'out of place' in normative spaces.

Increased public violence and hate crime towards the LGBTQ+ community calls for presentation and behaviour modification in order to blend in, to avoid being targeted. Conceptualising the present moment as an 'elliptical aperture' casts light on how the digital technologies we walk-with shape the openings and closings, the relational potentiality, of the present moment. And so, this paper explores how the digital-mediation of walking might both enable queer subjects to make and inhabit lives, whilst also acting as a relational site for the manifestation of power — algorithmic governance and · · · · · techno-capitalist surveillance. Are we being tethered to normativity through digital attachments? And/or is there queer transformative potential in the digital mediation of our mobilities?

This paper reconceptualises walking with respect to 21st century digital transformations to consider whether the current modality of digital mediation is good enough to foster authentic queer belonging in urban spaces – are we existing with/in human-machine relations that enable queer bodies the right to safe and comfortable urban mobility?

# 13:00-14:20: B1: Digital Mobilities

The rise, fall, and rise again of QR Codes: Bridging the digital/physical divide through new mediated mobility practices - **Jordan Frith** 

QR Codes are an increasingly important part of the mobile media landscape that connects physical objects to digital information, typically through the mediation of smartphones. As Fortunati (2014) argued, they "act as a bridge between a static media (like a print newspaper) and a dynamic media" (p. 62). That "bridge" enables material objects like restaurant menus, art installations, posters, and so on to be scanned through smartphone cameras and linked to digital information (most often in the form of a URL). Consequently, QR Codes are a form of mobile media that furthers the development of what de Souza e Silva (2006) calls "hybrid spaces," in which the physical world merges with digital information in impactful ways. This presentation will focus on the history of the QR Code's role in enabling hybrid spaces and argue that their development provides three important insights for mobilities research: 1. The importance of analyzing mobile media within their historical context, 2. The non-linear path to adoption for mobile media, and 3. The necessity of avoiding overly Western-centric analyses of mobile media adoption.

Rethinking mobilities through the digital: signals, data and devices -

## Markus Roos Breines & Michael Gallagher

Mobilities generated by or through digital technologies with or without human intervention are becoming increasingly central in new spheres of activity and underpin much of human mobilities. Despite their centrality, these digital mobilities remain largely invisible, both to human perception and in the academic literature. As a result, little is known about digital mobilities compared to other forms of mobility. In this paper, we explore how digital mobilities operate in their own distinct ways and represent a microcosm of the broader spaces where the digital is increasingly becoming autonomous and separate from human intervention, while at the same time also framing human opportunities and ways of living. Drawing on research on automation in education and human mobilities, we centre our attention around signals, data and devices as cases that are emblematic of this emerging field. In grappling with the question of what digital mobilities are and how they operate, this paper looks at what happens beyond the surface to delineate a largely undefined field of research. We hope that discussion thereby pushes studies of mobilities into a new and less anthropocentric terrain.

# Data mobilities: Rethinking the circulation of data - Rob Kitchin, Juliette Davret, Carla Kayanan & Samuel Mutter

The mobility of data has been variously described as data: journeys, flows, streams, threads, traces, transfers, linkages, exchanges, circulation, sharing, and commodity chains. In each case, the mobility of data is conceived as a movement from here to there; the data moves along a chain of receivers and senders. However, we contend that the metaphor of a data journey (or flow, stream, etc.) does reflect well the transfer and circulation of data. Data typically do not move as in a journey - leaving one system to travel to another. Rather the data replicates (copies), with the original source retaining the data and a new source gaining it. Data are non-rivalrous and they diffuse and proliferate (multiplies). Moreover, data mutates as it multiplies through processes of data cleaning, data wrangling, and its mediation by technologies, protocols, and practices. In some cases, the transformation can be significant, with downstream versions being derived tertiary data or the products of analysis (e.g., visualisations), rather than cleaned and wrangled primary data. In addition, data does not circulate alone, but with companions such as other data (e.g., metadata, assembled into databases) and information (e.g., manuals, narrative, visualisations). The diffusion of data is facilitated by seams (e.g., metadata, standards) and hindered frictions and vulnerabilities (e.g., access controls, legacy issues, path dependencies). We illustrate our argument through a case study of the planning data ecosystem in Ireland. Through 33 interviews – including walk-through interviews of every IT system used by local authorities, state agencies and government departments – plus a close reading of system manuals, we documented all the data captured within the planning system, and their inter-relationships and mobilities within and beyond the planning system. Our analysis reveals data mobilities as mediated, contingent, relational, contextual, emergent, material, embodied, discursive, and scaled.

Mobile Mapping: Cartographic Digitalities in Settler-Colonial Spaces -

# **Clancy Wilmott**

Since the development of internet-enabled smartphones in the mid-2000, there has been considerable discourse from scholars about the impact that digital mobile media - or locative media - have made on urban spatial mobilities (de Souza e Silva and Sheller, 2014), cultural economies (Wilken 2020), media practices (Farman, 2012) and technical infrastructure (Crow et. al. 2010). At the same time, while scholars have done considerable work to theorize these impacts from genealogical perspectives of locative media (c.f. Zeffiro, 2012), far less has been - and continues to be - said about the role that the geographic plays in the construction of everyday spatial mobilities.

Drawing from over a decade of research in spaces entangled with settler-colonial and imperial infrastructures - including ethnographic interviews, GPS and creative works, collaborative mapping partnerships with Indigenous and unhoused organizations - across the UK, Australia, Europe, Hong Kong and the US, this paper explores the way in which the conditions for digital mobilities are embedded in the geographical and historical contexts in which such mobilities emerge, from the technological to the linguistic to the built environment. In doing so, this paper argues that a basic level - the discursive structures of both cartographic and digital media are presaged in both the construction of urban space, and the bodily possibilities within it - furthermore, digital mobile mapping technologies represent a coming together of Leibnizian and Cartesian relationalities which intensify existing settler-colonial strictures. At the same time, however, resistance exists in myriad form - from ways of being that slip around, push through or resist entirely to the exploitation of the limitations of digital mobilities themselves.

# 13:00-14:20: B2: Digital Spaces for Social Interaction

The roles of Information Communication Technology in translocal embedding and anchoring among Thai migrant workers in South Korea -

## Reena Tadee, Patrick Sakdapolrak, Harald Sterly & Raffaella Pagogna

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Digital Placemaking Amidst Reduced Physical Mobilities: Belonging to the Spaces of Everyday Life during the COVID-19 Pandemic - **Malene Rudolf** 

# Lindberg, Marie Steder, Sirid Bonderup

During the stay-at-home orders and other restrictions imposed by the COVID pandemic many places central to our everyday lives were closed off or avoided because they became nexuses of contamination. Urban dwellers especially in the global North found themselves reduced in mobility and bound to the home during both work and recreation, and activities in both domains became increasingly digitalised as physical mobilities were constrained. This study investigates how belonging was digitally practiced in times of reduced physical mobilities within two key domains impacted by the pandemic: the workplace, where people were not allowed to go and gather as they used to, and the urban green spaces, where many people took refuge and gathered. Through ethnographic fieldwork, publicly available datasets, and interviews, we scrutinize the ramifications of reduced mobility and explore the phenomenon of digital placemaking in these contexts. We analyse how digital technologies were employed in placemaking practices to foster a sense of belonging and community amidst physical constraints. The research thus uncover practices of establishing belonging and connection to the places of everyday life in an era of unprecedented spatial limitations.

# Pasifika Well-Being Mobilities: Disruptions and Transformations through Tā (time) and Vā (space) - **Ruth (Lute) Faleolo**

This paper discusses key ideas and findings drawn from my postdoctoral work 'Pasifika Mobilities' (2020-2024) that focus on how Pasifika migrants' well-being mobilities are evidence of disruptions and transformations occurring online. This digital short will provide an overview of the Indigenous method/ology embraced in the work – namely E-Talanoa and the Tauhi Vā approach. A positionality statement will also be given to explain my access to the online research spaces of Pasifika collectives. The digital short will focus on two key ideas: why the digital space is a significant and transformative space for Pasifika well-being; and how Pasifika collective well-being online disrupts deficit theorising about intergenerational disconnection.

The dashboarding of care: Conduct, coordination, companionship -

#### Si Jie Ivin Yeo

This paper critically examines how digital dashboards are co-constituting contemporary caring practices and relations in the city. It brings work in critical data studies on dashboards and recent geographical scholarship on care into a conversation to unpack how caring practices are organised and performed by different urban inhabitants in and through their interactions with various sorts of dashboards and, correspondingly, how different understandings of care inform dashboarding practices and processes. Based on ethnographic fieldwork and go-along interviews with three groups of users - fitness class participants, dog walkers, and environmental managers - of a nature park in Singapore, I mobilise the conceptual framings of conduct, coordination, and companionship to offer insights into how the digital mediation of care involves intersecting and interconnected relationships and dynamics between various human and non-human actors within different urban contexts. In making this argument, this paper builds on the emerging academic literature on the intersection of care and digital urbanism by drawing attention to the posthuman experiencing of care in the city. Such an analysis responds to calls for more critical engagements with the role of digital data and technologies in reconfiguring contemporary urban care practices and processes. Thinking through the experiences of diverse user groups and their interactions with dashboards would also help to generate empirically grounded perspectives that could inform more inclusive and ethical conceptualisations of urban digital infrastructures for care.

