

Panel 43. Technoscientific Narratives and Social Inequalities: Rethinking Epistemic Justice in the Digital Age

Convenors:

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Keywords: epistemic justice, intersectionality, narratives, social inequalities, technoscientific

Digitalisation is never a neutral process: the design and implementation of digital systems indeed reflect existing power structures. How can we envision more inclusive forms of technoscience that account for preexisting inequalities and the needs of all social categories? What role does epistemic justice play in ensuring that marginalised voices are valued in the digitisation process? What are policymakers and designers' accountabilities in constructing a more equitable digital world? This panel explores discussions on technoscience that address these inequalities in the digitalisation process. Specifically, it considers how particular social groups, marginalised due to ethnicity, gender, low income, social class, age, etc., are systematically excluded. Digital technologies, designed to promote efficiency and innovation, often fail to account for existing disparities and may even exacerbate it when critical perspectives are lacking. As scholars engaged in the study of aging, digital practices, and forms of exclusion in a changing society, we are aware that the discourses promoted by digitalisation policies not only systematically exclude certain categories but also shape the dominant narratives about these groups. For example, excluding older adults, often depicted as passive recipients of technology, reinforces stereotypes of dependency (Selwyn, 2004; Neves, 2020) and hampers participation in digital societies. Therefore, we challenge the assumption that digitisation policies benefit everyone, as they can instead lead to a new "digital underclass" (Schou and Pors, 2019; Helsper and Reisdorf, 2017). While generally presented as optimal solutions, digital technologies can be problematic, especially when the ethical and social implications are not considered (Zuboff, 2019). This panel invites critical reflections on the optimistic idea that digitalisation can serve as a panacea, investigating how such processes may instead perpetuate dynamics of exclusion and injustice, particularly for socially vulnerable groups, such as older adults. We adopt an intersectional and critical approach on digital exclusion, whereby "if, in theory, gender and technology are co-produced, so are ethnicity and technology, age and technology, sexuality and technology, and class and technology" (Mellström, 2009, 888). Indeed, intercultural comparisons and intersectional understandings are often absent in STS research, with few exceptions. Epistemic justice thus provides a critical lens to recognise their contributions, leading to co-created, inclusive, and intergenerational technologies (Jarke, 2021). We welcome contributions that investigate, among others:

- While digital technologies are often celebrated for facilitating everyday life, who has the power to shape technological futures? How can all social groups participate in this process?
- How can marginalised digital users be considered agents of change? Which epistemic/ structural barriers limit active participation?
- Which policy interventions can bridge the digital divide and promote inclusion?
- How can we avoid the mythologisation of technology as a neutral and universal solution, ignoring specific needs and structural inequalities?
- How can we rethink "the Imperative of digital inclusion" exploring alternative digital practices?
- What spaces can we create for alternative forms of digital participation and engagement that respect such choices and promote less normative models?



12 JUNE 2025 09.00 - 11.00

ID 211 - From Tokens to Tokenisation: Power, Class, and Fare Payment in Public Transportation

Michelle Phan, Simon Fraser University

Keywords: fintech, public transportation, urban sts. tokenisation, mobile wallets

On October 24, 2024, the Toronto Transit Commission (TTC) announced that at the end of the calendar year, they would no longer accept paper tickets, day passes, and coin tokens. Going forward, payment will only be accepted through either a physical or digital PRESTO card or ticket, through debit or credit cards, or through mobile wallets. This was not a sudden change: the TTC had been slowly phasing out paper tickets, aluminium tokens, and paper day passes over several years. Metrolinx, the crown agency in Ontario that governs all road and public transport in the areas of Greater Toronto and Hamilton, discusses phasing out tokens as part of their broader strategy for fare integration across different transit systems and "improved affordability and access" (2024).

Many transit advocates concerned about preserving access to transit for the most vulnerable users have contested this move to digital fares. Tokens have long been important to low-income transit riders, who were able to get more affordable tokens when purchased in bulk and found them easy to use and share (Bender 2019). In the past, social service agencies commonly distributed tokens to clients so that they could travel to access vital services (shelters, welfare agencies, health outreach), which becomes more challenging when fares are mediated by digital cards and wallets. Technocratic advocates of cashless payments, including Metrolinx, argue that cashlessness improves financial access and inclusion (Efthymiou & Batiz-Lazo, 2016, p. 1). The payment industry at large associates cash with "filthiness" and "disreputability" (Maurer, 2015, p. 21) at the peril of those experiencing precarity on the margins. Those who cannot access credit and therefore participate in TTC's transition to cash-free transit, and a "cashless society" more broadly, are therefore punished for their non-participation in said transition.

This research asks how the change from physical tokens to digital fare payment in Toronto's transit system shapes access to transit. The project interrogates how the elimination of physical fare payment and moments of sociotechnical transition at large, have shaped exclusion of communities already made vulnerable by neoliberal changes in public services. The examination of these systems as forms of mediation for fare payment is a critical framework that focuses on how the fare exchange is made material within specific contexts of use. Fare technologies mediate not just the exchange of currency but also class and power dynamics that reveal how the transit system perceives its users, and who the transit system supports in accessing services with dignity.

My research seeks to situate fintech in the context of public transportation. While literature in public-private partnerships (P3s) focus on the rise of the Smart City (Valverde, 2022) in the age of the Internet of Things (IoT), this proposal seeks to focus on contactless payment not simply to examine "the securitisation of financial identity" (Gates, 2010), but also the consequences of this securitisation in a transit context that claims to offer wider breadth of access to public services.

12 JUNE 2025 09.00 - 11.00

ID 284 - How Generative AI 'Sees' Older People: The Role of AI in re-producing and circulating Ageism

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Keywords: generative AI, ageing, ageism

While simulative AI has been largely explored by ageing studies, especially regarding its applications in healthcare services addressed to older adults (Broadbent, 2017), studies on cybernetic AI and ageing are



still scarce. Focusing on the most popular manifestation of cybernetic AI, that is Generative AI (ChatGPT, Gemini, Copilot, etc.), social research has largely addressed the problem of socio-cultural biases (e.g., stereotypes) embedded in as well as re-reproduced by Generative AI platforms (CIT). In fact, unlike social media platforms, Generative AI platforms do not just re-arrange meaning produced by users through recommender algorithms, they directly produce meaning and imaginary by condensing representations and imaginaries already produced by users on the web as well as contained its trained dataset (Anselmi et al, 2024; Munk et al. 2023). Anyhow, there are still very few social science studies addressing the specific relations between Generative AI and ageism (Loos et al. 2024).

The present contribution aims at contributing to filling this gap, by exploring the role of Generative AI in producing and circulating representations of older people and ageing processes. Assuming an anthropological perspective (Munk, 2022; De Seta et al., 2024), we ask ourselves: how does the Generative AI 'see' older people? And to what extent such a 'vision' can be deemed biased or even ageist? To answer these research questions, we developed an empirical study in which, through several ad hoc prompts (e.g. 'please generate a picture of an active older person', we asked the AI to provide us with its 'own representation' of older people, both textual and visual. We employed both ChatGPT 4 and DALL-E, this with the scope to explore the broad spectrum of ageing biases (i.e. the discourse and the visual imaginary).

Drawing on the analysis of 100 outputs generated through multiple iterations, we show how not only the AI's representation of older people can be deemed ageist, but we also identified different types of ageist representations (Ayalon & Tesch-Römer, 2017) that manifest in our dataset with different degrees of intensity. We analysed the AI's outputs employing a mix of computational and qualitative techniques. We know a lot about how digital technologies (e.g., social media, big data, platforms) mediate and structure discourses on ageing, but the role of AI is rarely debated in this regard. Knowing that AI is not a technology mediating communication, but doing communication, with this study we contribute to kick-start a discussion around its role in the production of social knowledge on old age and ageing processes. Moreover, the study contributes to the discussion around the implications of the use of AI applications both as a source of data and a research method in ageing studies.

12 JUNE 2025 09.00 - 11.00

ID 368 - Transforming epistemic (in)justice through welfare technology in social care for people with intellectual disabilities and, or autism.

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Keywords: epistemic injustice, epistemic agency, welfare technology, social care

In Swedish municipalities, welfare technologies (WT) are increasingly being applied in social care organisations that supports the elderly and persons with disabilities. The primary aim of WTs is to enhance or/and maintain the quality of life and well-being of those in need of support, and/or improving working conditions for staff and increasing the efficiency of services in the welfare and care sector. WTs could enhance participation and autonomy for service users with intellectual disabilities (ID) and/or autism spectrum disorder (ASD). This study is based on the professionals' perspectives within social care residences for people (service users) with ID and/or ASD. The study specifically investigates the relationship between service users and professionals, highlighting issues of epistemic injustice, power dynamics, and knowledge sharing. It also explores how the epistemic agency of service users is influenced by these dynamics.

The study builds upon experiences from the professionals who work within social care accommodations that are statutory according to the Swedish Act (1993:387) on Support and Service for Certain Disabled People (LSS). This is a qualitative study with semi-structured interviews conducted with social care professionals (n=11), unit managers (n=3), and business developers (n=2). In total, 4 group interviews were con-



ducted with social care professionals (n=10) and unit managers (n=3) within four Swedish municipalities during six months in 2023 and two months in 2024. The WT, in this study, has a staff application for the care professionals and an individual application for the service users within the social care's LSS accommodations in four Swedish municipalities.

This paper makes a starting point in Aristotle's theory about three types of knowledge and applies the concepts of epistemic agency (Catala 2020) and epistemic injustice (Fricker 2007).

The findings indicate service user's epistemic agency is affected by being given new opportunities to co-create and shape content in their activities through WT. Critical challenges in fostering greater epistemic agency and epistemic justice are professionals' digital literacy, assumptions that affect their how-to knowledge and how-to act knowledge, which may undermine the service users' epistemic agency and remain status-quo of disabling barriers to promote a greater epistemic justice. This study highlights the importance of this theoretical framework for understanding knowledge creation in social care when implementing WTs. This framework also recognizes that WT is an integral actor in shaping social interactions that either disable or enable epistemic agency for service users and the development of epistemic (in)justice. Further research will be performed to gain service user's perspectives and experiences.

12 JUNE 2025 09.00 - 11.00

ID 619 - Constructing the digital citizen: How digital inclusion policies produced normative ideals of digital citizenship in Flanders (2019-2024)

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Keywords: digital inequalities, digital inclusion, digital citizenship, digital policy

As governments become increasingly reliant on digital technologies, enabling the participation of citizens in a digitalised society has become a priority issue for policymakers. In recent years, the Flemish government has nudged citizens towards digital participation through the development of digital inclusion policies, which aim to remedy digital inequalities by providing citizens with access to digital infrastructure, training, networks, and support structures. At the same time, these policies produce sociotechnical imaginaries that establish normative ideas and ideals of citizenship in a digitalised society.

This study examines how digital inclusion policies developed by the Flemish government during the 2019-2024 legislative term have constructed normative visions of 'the digital citizen'. The aim of this study is twofold. First, this study seeks to highlight the constructed and contextual nature of digital citizenship. We do so by building on critical scholarship on digital citizenship, which considers that digital citizens do not emerge independently from the political and institutional context they inhabit. Rather, digital citizens are "the product of discursive, technological, legal, and political practices" (Schou & Hjelholt, 2018, p. 507)

Second, by bridging digital inclusion scholarship with critical digital citizenship studies, we bring into view digital inclusion's political and institutional underpinnings as well as its impact on the shaping of contemporary norms of citizenship.

For this study, we analyse all policy documents that relate to digital inclusion and were published by the Flemish government during the 2019-2024 legislative term (n=105). Methodologically, we rely on Bacchi's 'What's the problem represented to be' approach (Bacchi, 2012), which considers policies not as solutions to given pre-existent problems but as problematisations through which citizens are governed. Theoretically, we draw on Jasanoff and Kim's concept of sociotechnical imaginaries, defined as "collectively held, institutionally stabilised, and publicly performed visions of desirable futures" (Jasanoff & Kim, 2015, 4).

This study shows that digital inclusion policies play a significant role in shaping political expectations of citizenship in a digitalised society. Between 2019 and 2024, the Flemish government presented digital inequalities as a problem of citizens who are not digitally self-sufficient. The policies present an ideal of 'the digital citizen' as an autodidact who is ultimately responsible for taking advantage of the opportunities provided to them to become digitally self-sufficient. To promote this ideal, the Flemish government creat-



ed temporary government programmes that provide access to tools, trainings, and support to citizens, and are typically organised by local governments and local charities. In this imaginary, the digital citizen is not a "roaming autodidact" (Cottom, 2016), but a local autodidact who achieves digital citizenship by engaging with local initiatives that promote digital inclusion.

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12 JUNE 2025 09.00 - 11.00

ID 701 - The marginalisation of older and younger people's voices in smart mobility and AI tracking technologies

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Keywords: Digital technologies, AI, smart mobility, age, marginalised voices

Our paper reflects on ongoing (2025-starting now) and completed fieldwork (2022-23) in Munich, Germany and Brighton, UK, on how AI and tracking technologies are used in mobility practices in the UK and Germany. Our findings highlight how older and younger people experience digital technologies in ways that are marked by a large diversity, and often experience transport infrastructures and tracking technologies differently. We draw on rich empirical examples of firstly young people who are monitored at a distance when walking home from school or when at home. Secondly, older adults who use smart mobility apps when taking public transport (buses, bicycle, ride sharing) or track their own movements. These practices challenge dominant ageist narratives about older and younger people as passive recipients and potentially vulnerable 'users' of technology. In our presentation, we will discuss how age discrimination has remained largely unchallenged in research infrastructures (tools, funding), material mobility infrastructures, including AI/tech design, and institutional regulatory frameworks. As with other areas of digital communications, the social justice implications of older people's or younger people' media use remain largely unchallenged in a research and funding culture that places too much emphasis on age related vulnerability or decline (Vincent, 2023). We will close the presentation by discussing examples to illustrate the marginalisation of younger and older people in research and policy contexts in the UK and Germany.

An example of this is university ethics procedures. Ethics committees often reinforce discourses of vulnerability, questioning whether researchers can be alone with children. While children's safety and wellbeing are important, this discourse of vulnerability and risk at the same time makes it difficult to study children's independent mobilities and resistance towards tracking technologies, especially when parents are keen to interrupt children's views and shape these during interview processes. We show how everyday contexts are more diverse than the laws that are implemented to focus on the rights of e.g. children or older people in a digital space. Parents install digital tracking apps that enable them to monitor their children at a distance or enable them to block websites that they think are problematic. While children need to consent to these apps the first time after installation these tracking apps 'run in the background' raising questions about whether digital tracking technologies are based on ongoing consent, and children's active participation. AI driven mobility platforms are often designed in a way that do not take walking speed into account, and hence potentially exclude the experiences of for instance older or younger users. While new AI technologies are being planned in transport contexts in the UK for example, such as real time information about wheelchair accessibility on buses, often technologies are designed for young and middle-aged



adults who commute to the city for work, rather than the needs of young people and older adults who may travel outside rush hour. In this presentation we discuss such examples to illustrate the everyday movement realities that are not necessarily reflected in smart mobility planning.

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ID 763 - Critical Qualitative ML for Inclusive Information Orders: Declawing Populist Disinformation against Queer/Trans Worldmaking

Kenzie Burchell, University of Toronto

Keywords: Censorship, Platform Regulation, Populism, Homophobia, Transphobia, Policy

The populist, ethnonationalist, and patriarchal force of contemporary hate, harassment, exclusion from digital public spaces is one built upon templates of identarian-oriented disinformation narratives as much as legal templates relating to censorship, public expression, as well as platform- and market-regulation. Epistemic justice is being curtailed through the "lawfare" and "marketcraft" of our digital spaces focusing by excising representative worldmaking experiences, in particular the political expression of queer/trans, feminist, and racialised voices from public discourse.

First, this paper presents a 15-year audit of the Russian legislation targeting public expression (in media, public spaces, online, and in private messaging/speech) by unpacking the relationship between news and platform regulation with successive laws aimed at the removal, erasure, and criminalisation of LGBTQ2S+ public life, culminating in Queer and Trans communities being targeted, arrested, and sentenced as extremist terrorist movements – with a federal registry being put in place as of January 2025 – mirroring techniques deployed against local colonised and migrant Muslim communities in the Russian Federation in the decade prior. Templates for authoritarian and backsliding democratic governments have been increasingly developed, exported and built upon globally over 20 years, marshalling the support of ethnonationalist majorities by eschewing equal rights and diversity as the failure of democracy. This populist thinking promotes everyday mis- and dis-informing harassment, exclusionary legislation, and state sponsored surveillance and violence towards LGBTQ2S+ communities, attacks on whom serves as "agitainment" (agitation-entertainment), the rallying media genre of "strong man" populists worldwide.

To declaw populist disinformation and promote epistemic justice and worldmaking, second, this paper applies those lessons to a mixed-methods ML approach to develop editorial policy and reporting guidelines – an STS Work-in-Progress for the good seeking feedback – where similar exclusionary techniques are adopted among settler-colonies/colonizers of the Anglo-America west. I have identified four domains of data (plus the relevant media aggregation platforms/APIs and open source datasets) to better understand the informational order through which anti-LGBTQ2S+ and anti-QTBIPOC rhetoric circulates: 1) the flow and frequency of discriminatory templates in governmental and elite rhetoric over social media and official repositories of Canada, UK and US, 2) metadata representative of Canadian "mainstream media" coverage and the "elite" institutional voices of academic research, 3) changes to national, provincial, and local legislation as well as platform regulations and internal platform policies, and 4) the annual federal statistical realities often appealed to or ignored in populist framing of social ills. An STS, sociology of knowledge, and "practice-theory" analysis will deconstruct regulatory and digital mediations upon collective identity-claims, institutional expertise, and elite media narratives, while also tempering the "homonationalism" that could otherwise emerge by unpacking the "methodological nationalism" inherent to already nationally defined media and datasets. The goal is to, first, analyse each domain of data while maintaining high researcher-algorithm interaction using more transparent, interpretable statistical methods to prompt identification of key events and case studies for comparative critical discourse, production, and platform analyses – qualitatively permitting new insights for how to manage, understand, expand and prune the datasets before engaging with less supervised ML analysis techniques.



12 JUNE 2025 09.00 - 11.00

ID 821 - Framing alternative AI narratives from a participatory perspective

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Andrea Rosales, *Universitat Oberta de Catalunya*

Keywords: AI Hype, AI narratives, STS

Purpose. The discourse surrounding artificial intelligence (AI) seems to permeate every aspect of our society with technological optimism. The growing hype around AI and its consequences, characterised by an exaggerated attribution of AI's capabilities, is accompanied by increasing public awareness and concern regarding its power and potential dangers. As a result, technology sectors are increasingly engaging with ethical concerns, though these often fail to critically address the socio-technical complexity of AI. The purpose of this study is to analyze the formation and spread of alternative AI narratives that challenge the hegemonic digital discourse.

Design/Methodology/Approach. The study employs an ethnographic research approach, involving the collection of over 1,500 messages from a specific influential Telegram group. The sample included over 60 individuals from diverse backgrounds, including academia, political institutions, and activist groups, with varying degrees of public exposure to the topic in the Spanish context. A content analysis was conducted on the comments and reactions generated by the members of this group, as well as on key documents and shared links. Given our active involvement in the group, we adopted a participant observation approach to document the daily debates and activities that took place during the first year of the group.

Theoretical Framework. This study is rooted in the paradigm of Science and Technology Studies (STS), which posits that technologies (and the narratives that accompany them) are not merely driven by the inherent instrumental logic of technology but are also shaped by social forces. STS explores the reciprocal influence of social factors on technological development and vice versa, examining the imaginaries surrounding digital technologies or the shared understanding of how technologies affect social life and social order. STS benefits from case studies, as they help refine and update its theoretical framework. Findings,

Originality, and Value. Our study contributes to the global understanding of "AI resistance" movements, which we define as diverse forms of social and techno-political action that challenge the dominant AI paradigm. The originality and value of our research lie in its unique account of counter-hegemonic technological futures emerging from local experiences in Spain, which aim to challenge the dominant discourse on AI.

