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## Panel 61. Public Sector, Public Interest?

Convenor:

*Philip Boucher, European Commission*

**Keywords: Public sector, artificial intelligence, digitalisation, interoperability, public services**

The public sector includes the administration and delivery of public services such as healthcare, education, justice, social services, and mobility. Over the past decades, we have witnessed the emergence of increasingly digitalised and interoperable public services. These developments now provide a springboard for a further wave of innovation, the application of technologies such as artificial intelligence (AI) with the promise of services that are faster, cheaper, smarter, and closer to the citizen.

While many citizens are used to AI chatbots and recommendation systems in commercial contexts, public sector innovations often sit at the interface between the citizen and the state and, as such, have a higher benchmark for responsibility and accountability. High-profile misuses of technology in public decision-making – such as the Dutch childcare benefits scandal and the UK Post Office scandal – have led to substantial breaches of trust in both technology and governance, and raised questions about the role and interest of the private sector actors in public sector service delivery.

Public sector technoscience should suggest technoscience for public good. Yet the classic questions remain: Good for which public? On what basis? Papers are invited to examine any aspect of technoscientific innovation in public sector contexts, including:

- case studies of public sector technoscientific innovation;
- defining and defending public interests;
- the role of private actors in public service delivery;
- maintaining standards, accountability, quality, and trustworthiness in public services; strategies and narratives accompanying interventions;
- defining indicators for public benefits;
- forms of public interest, consultation, and engagement;
- the role of legislation such as the Interoperable Europe Act and AI Act in promoting public good.

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## ID 209 - AI Agents for Public Deliberation and Simulated Stakeholder Negotiations

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**Keywords: regulatory sandboxes, AI regulation, AI agents, public engagement, simulation**

As AI systems are increasingly integrated into public services (healthcare, justice, social services, and mobility) governments face mounting pressure to balance efficiency with democratic accountability. While AI promises faster, more responsive services, recent scandals have eroded public trust by exposing the risks of algorithmic opacity, bias, and corporate influence in public decision-making. This paper introduces AI agent-to-agent simulations as a method for testing AI-driven public sector governance models before their implementation, allowing policymakers, civil society, and citizens to actively prototype, stress-test, and negotiate AI's role in public services (example of simulations <https://agentsim.streamlit.app/> )

These participatory simulations invite stakeholders to design and define AI agents representing government institutions, private-sector service providers, advocacy groups, and citizens, then observe their interactions in simulated public sector dilemmas. The experiments raise key questions about AI in public



services: How can we ensure that AI systems uphold the public interest rather than private-sector priorities? Can participatory AI simulations offer a transparent and accountable method for evaluating AI-driven public services? How do AI agents mediate conflicting interests in public sector decision-making, and what governance structures are needed to maintain democratic oversight?

By framing AI not just as a tool but as an active participant in governance, this approach repositions AI ethics from top-down regulatory compliance to dynamic, stakeholder-driven deliberation. It explores how AI policy sandboxes and simulated negotiations can serve as experimental space, providing public sector leaders with a means to anticipate risks, refine regulatory frameworks, and foster AI systems that are truly accountable to the public good. Example of previous work which we extended from one agent to many agent interaction <https://dl.designresearchsociety.org/drs-conference-papers/drs2024/researchpapers/11/>

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## ID 258 - European Human-Centric Digital Transformation Projects as Case Studies for Approaching Public Interest

*Regina Sipos, Technische Universität München*

**Keywords:** human-centric approaches, digital transformation, public interest

This paper is based on a Compendium written for the International Telecommunication Union (ITU), based on a series of workshops titled "Spotlight Series on Human-Centric Digital Transformation". The goal of the Compendium is to enhance the understanding of human-by-design digital features, and it features project-based case studies from Albania, Czech Republic, Estonia, France, Georgia, Hungary, Latvia, Lithuania, Moldova, the Republic of Poland, Serbia, Slovenia, Spain and Ukraine.

Human-centric digital transformation is an emerging term, but the importance of societal considerations in technological development is not new. Similar notions have been explored in different contexts, such as Responsible Research and Innovation (RRI), a framework in the European Union, or Digital Social Innovation (DSI), for collaborative types of innovations to address SDGs. The ITU has published a toolkit on Digital Transformation for People-Oriented Cities and Communities, highlighting the urgency of promoting sustainable, inclusive, resilient and improved quality of life to be considered when planning the digital transformation of cities. Furthermore, GovStack was initiated to help governments build sustainable digital infrastructure and human-centred digital services. These are just a few recent examples.

As the term human-centred inherently suggests that the public sector projects are for the public good, findings from this compendium will be utilized to (1) showcase case studies of human-centered public sector technoscientific innovation (2) the role of private actors in the development of the projects, specifically PPP and intrapreneurship (3) attempts to maintain trustworthiness in the transition process (4) forms of public engagement and (5) the role of national and EU-level legislation as an enabler.

The human-centric digital transformation process is seen by many technical experts as an opportunity to finally systematically address challenges and shortcomings of the public sector, including simplifying or re-engineering complex bureaucratic systems, saving time and money for the citizens, and creating thorough consultation processes with all stakeholders. Technical experts highlighted that the inflexibility of the public sector hinders innovation. As an answer to this issue, governments are stepping up and either adapting approaches from the private sector or creating close collaborations with it by learning to use constant exchange and agile methods to accelerate processes. Furthermore, human-centric private-public-community collaborations are explored to cover any last-mile gaps. In addition, regional strategies can increase international knowledge exchange, and national regulations and policies can foster consistency in approaches- but as findings show, the two need to be combined to achieve inter-regional collaboration while also taking local contexts into account.

Building on hands-on examples of successful projects, the paper summarizes five key principles of Human-Centric Digital Transformation, namely Privacy and data security, Responsiveness, Interoperability, Agile approaches, and Simplicity.



Through the cases, several socio-economic benefits of human-centric digital transformation processes become clear. However, the transformation process also carries worries and threats with itself, including leaving citizens behind, not safeguarding personal data, "digitising the chaos" and creating solutions without a proper use case. These shortcomings are highlighted in the conclusion of the paper to generate further reflection.

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## ID 309 - Transforming Parenting and Welfare: Public Sector Apps in Digital Parenting

*Victoria Andelsman, Københavns Universitet*

**Keywords:** welfare state, Care, citizen-state apps, infrastructures, Digital Parenting

This study examines the role of citizen-state apps in digital parenting, exploring how parents use digital media to manage child-rearing within Denmark's welfare state. The study focuses on the Aula app – a mandatory communication tool connecting parents and schools – and is based on 35 interviews with parents and app walkthroughs. It argues that parental agency and responsibility are not solely matters of individual choice but emerge through complex interactions with digital technologies and state institutions. The paper demonstrates how the use of digital media is reshaping parenting responsibilities and redefining what it means to be a "good parent."

Research emphasising voluntary digital practices often overlooks the powerful role state institutions play in shaping the necessity of digital parenting. Instead, this paper advocates for a relational approach, addressing the interconnected dynamics of care, coercion, and responsibility. Although universal childcare and state involvement might seem at odds with intensive parenting – often associated with privatized child-rearing – studies indicate that intensive parenting remains a dominant cultural norm in Denmark (Dannesboe et al., 2018; Gilliam, 2022; Gilliam & Gulløv, 2017). This norm likely reinforces expectations for both parents and public institutions regarding children's socialisation in "shared care arrangements," with digital tools increasingly facilitating this collaboration. The paper argues that data-intensive apps like Aula are transforming care arrangements, reshaping the timing and location of parenting, increasing expectations for parental involvement, and reinforcing extensive data-sharing practices.

While parents appreciate Aula's convenience, its integration into public education raises concerns about data privacy, potential risks for marginalized groups, and the additional workload placed on institutional staff. Moreover, assuming control and responsibility within the care collective imposes further obligations on parents. These findings situate digital parenting within broader welfare state datafication, prompting questions about shifting welfare values in the Global North. The paper aligns with critical data studies, advocating for a shift from individual to collective efforts in developing caring, equitable digital infrastructures.

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## ID 348 - Robots and the Production of "Publicness" in Urban Spaces

*Anna Dobrosovestnova, Technische Universität Wien*

**Keywords:** urban robots, publicness, public spaces, democratic participation

Service robots have recently emerged as a significant area of interest for geographers and critical urban studies scholars, as they are increasingly integrated into and shaping the socio-spatial realities of public spaces. As Del Casino et al. (2020: 606) argue, robotic technologies are entangled in "making and remaking the structures, conditions, and relations of everyday life." Examples of urban robots currently in use include delivery robots navigating sidewalks, security robots patrolling transport hubs, cleaning robots in airports, and robots performing tasks in hospitals.



These robots, defined here as physically embodied and (variously) autonomous machines with specific tasks that interact with their surroundings (Beer et al., 2014; Sumartojo et al., 2021), reconfigure existing spatial practices and relations. However, their role in shaping "publicness" – a critical dimension of public space – remains underexplored.

At the same time, the concept of "publicness" is notoriously difficult to define. Urban studies and political economy have long grappled with the political and social dimensions of public spaces, while fields like human-computer interaction (HCI) and human-robot interaction (HRI) focus on technological performance in public environments. Existing studies in these fields tend to overlook the political significance of publicness as a site for democratic expression and the common good.

In this presentation, I seek to test whether a deductive approach can serve as a useful tool for exploring the relationship between urban robots and "publicness" in its political dimension. Situated at the intersection of critical urban studies, STS, and HRI, my analysis draws from Nemeth's (2021) framework for analytically and empirically studying publicness. Specifically, it evaluates whether deductive criteria – such as ownership structures, fit within communal life, and impact on access – can effectively capture how robots deployed in urban spaces contribute to or hinder "publicness". Case studies of functional service robots currently deployed in urban environments serve as a test bed for this approach. The chosen examples offer preliminary insights into how robots interact with and potentially reshape "publicness". This exploratory analysis is informed by publicly available data, existing empirical studies, and my research on delivery robots such as Starship robots.

Rather than providing definitive conclusions, I aim to interrogate whether deductive approaches to "publicness" can illuminate the political dimensions of robot interactions in public spaces. By doing so, I also challenge simplistic categorisations of "public robots" as mere occupants of public spaces (cf. Pelikan et al., 2025) and consider the active role of the robots in producing or hindering democratic participation and expression.

Throughout my analysis, I will also raise critical questions about the ethical and political implications of robotic technologies in public spaces. How do they affect democratic participation? Whose interests do they serve? And how might we refine frameworks and methodologies to better understand and govern these interactions?

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## **ID 364 - AI and Public Security: Balancing Technological Innovation for the public good**

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**Keywords: public security fundamental rights drones**

Public security is a foundational responsibility of the state, which has evolved over time to meet the changing nature of threats. From Ancient Rome's Vigiles, who maintained order and responded to emergencies, to the complex networks of police forces of modern times, the way we ensure safety has adapted. Today, Artificial Intelligence (AI) is emerging as a key player in this process of change. This paper examines how the integration of AI technologies in public security shapes the relationship between state, technology, and citizens, asking: how can AI-driven public security systems be developed and implemented to effectively address emerging threats while ensuring alignment with European values and fundamental rights? Through the analysis of the EU Horizon PRESERVE project, which tackles the threat of civilian Unmanned Aerial Systems (UASs), we explore the technical, ethical and regulatory dimensions of this challenge.

AI has significantly transformed public security. For instance, predictive policing has long been recognized and used by institutions, but its emerging AI applications continue to push boundaries. This is the case of the PRESERVE project, which tackles the threat of civilian Unmanned Aerial Systems (UASs) – or drones



– repurposed for malicious attacks against public spaces, individuals and critical infrastructure through AI-powered technology. The PRESERVE project is developing new approaches and a Hybrid Counter UAS platform to support police in detecting, preventing and managing drone-related risks in real time, aligning with the EU's Counter-UAS policy. In a technoscientific progress, the development of new science drives and at the same time is driven by the development of new technological infrastructures.

However, this technology is not without its criticalities, which must be properly considered to keep the final solution in line with EU values and for the public good. There are several cases that have highlighted the danger of misuse of AI in public service delivery. Responding also to these concerns, the AI Act has been enacted, providing a path for the development and deployment of AI while respecting fundamental rights. It is underlined that this approach is not limited to mere compliance, as must be applied by design from the inception stage of the technology: developers are the first responsible for ensuring that AI systems are ethical, transparent and aligned with European values.

Legislative frameworks like the AI Act play a critical role in guiding ethical AI usage in public services. By promoting transparency and accountability, these regulations help balance technological progress with the protection of individual rights. However, there are also other technical and vertical documents coming from the Joint Research Centre's (JRC) that are relevant for the PRESERVE's approach. Together, these documents form a multi-disciplinary framework that can be adapted to the technical and design contexts of development and the social aspects of deployment.

While AI holds transformative potential for public security, its successful integration depends on robust governance that prioritizes citizens' needs and rights. Through transparency, ethical safeguards, and meaningful public engagement, governments can harness AI's potential to improve public security while ensuring the protection of the public good.

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## ID 859 - Configuring procurers: how innovators re-imagine the public sector

*Carlos Cuevas-Garcia, Technische Universität München*

**Keywords: Public procurement, robotics, climate services, co-production, user configuration**

Emerging societal, technical and environmental challenges often invoke a call for public sector transformations. In the last two decades, innovation and public policy scholars have seen the state as an active player in the production of markets for new products and services that can simultaneously address public needs. The EU has vigorously encouraged the adoption of pre-commercial and innovative procurement. This talk explores how research and development projects have tested innovative procurement instruments in the domains of robotics and climate services. Both highly future-oriented areas aim to help make public services more resilient. Robotics are expected to replace or reduce the amount of workers required in (arguably) dirty, dull and dangerous tasks such as inspecting bridges or sewers; in turn, climate services intend to facilitate the use of climate data in the production of climate adaptation and mitigation strategies. In particular, this presentation examines how the figure of the "public sector (end-)user" emerges from participatory and co-creative procedures through which challenges, solutions, stakeholder roles, and even standards are proposed and put to test. Building on STS studies focused on the configuration of users and on the coproduction of technoscience and social - particularly European - orders, the argument is that configurations of public sector users of emerging technoscience are always, at least partially pre-determined by pre-existing socio-political arrangements: configurations of public sector and innovations cannot simply go in any direction. How do visions of innovative resilience interact, shape, and face public procurers' contestation? How do they expose different ways of understanding the public good?

