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**PhD in Media and Communication Studies (VUB)
PhD in Social Sciences (UHasselt)**

Rights to the (Smart)City: A Materialist Inquiry into Empowerment through Personal Data Protection

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Abstract

Who can decide what our cities are and what they should become? When Google's Sidewalk Labs tried to build a smart neighbourhood "from the internet up" in Toronto, public outcry over surveillance and data control helped bring the project to a halt. This example illustrates a core tension at the heart of smart city developments: while digital technologies promise urban efficiency and innovation, they often sideline democratic participation and citizen rights, raising fundamental questions about ownership, governance, and public accountability in digital urban space.

This dissertation investigates how urban dwellers can meaningfully shape the datafied cities they inhabit. It asks how smart urban space can be produced by, for, and with citizens, and whether personal data protection — particularly under the EU's General Data Protection Regulation (GDPR) — can serve as a tool for civic empowerment. Drawing on interdisciplinary insights from Media and Communication Studies, urban studies, and legal studies, the research critically engages with the social production of space in smart cities through the lens of Henri Lefebvre's Right to the City, foregrounding power relations, contested participation, and the democratic right of all urban inhabitants to influence the shaping of their environment.

The study applies a mixed-method design and conceptualises research itself as an assemblage, combining interviews, policy analysis, workshops, and stakeholder engagements. A materialist and situated research approach informs the analysis, highlighting how infrastructures, procedures, and technologies mediate the relations between citizens and urban space. The dissertation brings together five intersecting analytical perspectives — datafication, technological mediation, personal data protection, public participation, and the Right to the City — to investigate how governance frameworks, legal instruments, and mediated practices shape the possibilities for citizen agency in smart urban development.

Findings show that while legal instruments such as the GDPR offer important avenues for transparency and accountability, their implementation in practice often reinforces

existing power asymmetries. Citizen participation remains largely tokenistic, and structurally marginalised groups are frequently excluded from shaping decisions that directly affect them. Nonetheless, small but significant openings persist — through local interventions, participatory experiments, and efforts to translate legal and technical complexity into more accessible practices.

By connecting data protection to broader rights to the city, the dissertation argues that digital urban development must be reclaimed as a democratic project. This requires shifting from top-down visions of innovation to participatory approaches that prioritise lived experience, social equity, and structural inclusion. A central contribution of the research is the development and application of workshops — situated, reflective explorations of urban space that make abstract data practices tangible and accessible, and offer a promising method for fostering meaningful citizen participation.