

Smart Cities, Smart Government, and Smart Governance Minitrack (Introduction)

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Smart City is a concept for which no standard definition has been adopted either in theoretical researches or in empirical projects. Several definitions, different from each other, have been proposed. However, all agree on the fact that a smart city is an urban space that tends to improve the daily life (work, school, ...) of its citizens (broadly defined). This is an improvement from different points of view: social, political, economic, governmental, ... Finally, although smart cities are based on ICT (Information and Communication Technologies), people (with their knowledge, habits, experiences, culture and behavior) remain at the heart of concerns. In this context, this mini track aims at exploring what a smart city is and how a smart city is built and, therefore, at enlarging the still limited theoretical body around the concept of smart cities.

The HICSS-50 (2017) minitrack contains four papers representing different methodologies, theories, conceptualizations, and assessments of smart cities.

In his paper “Big Data Practices in U.S. Large and Mid-Sized Cities: A Multi-Layered Institutional Analysis”, Alfred Ho studies whether large and mid-sized cities in the U.S. are pursuing Big Data practices, based on an extensive analysis of the 30 largest cities and 35 selected mid-sized cities in the U.S. He also analyzes the clustering of city practices from a multi-layered institutional perspective and tests whether the adoption of Big Data practices is influenced by the macro socio-demographic structure and cultural institution of a community, by involvement in professional networks across cities, or by the institutionalization of evidence-based decision-making within a city.

The second paper “Challenges with smart cities initiatives – A municipal decision makers’ perspective”

co-authored by Paul Pierce, and Bo Andersson, purposes a study to advance the discussion on the most predominant issues with smart city initiatives from the municipal perspective in mid-sized European cities. To support this discussion, a brief review of the understanding behind the concept of smart city help shape the foundation to further debate experienced challenges. The study may serve as a fundament for primarily municipal-, but also other smart city stakeholders, to make more accurate decisions to combat future challenges in pursuit of desirable impacts. To act as a guide, the following research question is put forth: What are the most predominant challenges in a smart city from the municipal decision maker’s perspective?

The third paper “Towards Smarter Cities: Linking Human Mobility and Energy Use Fluctuations across Building Types”, co-authored by Neda Mohammadi, John E. Taylor and Yan Wang, investigates the significance of urban spatial effects on building energy consumption by exploring the underlying spatial reliance and developing a deeper understanding of whether a similar spatial dependency exists in human mobility as an indicator for urban human activities. Overlooking urban spatial effects when estimating building energy consumption can lead to unreliable predictions and poor management decisions, jeopardizing efficiency strategies and investments.

The final paper “Informational Urbanism. A Conceptual Framework of Smart Cities” by Julia Barth, Kaja J. Fietkiewicz, Julia Gremm, Sarah Hartmann, Aylin Ilhan, Agnes Mainka, Christine Meschede, and Wolfgang G. Stock, answers two research questions: What is the current state of the conceptual framework of our smart city research? Based upon our empirical findings, what are the main characteristics of smart cities? It presents both, a

conceptual framework for research on smart cities as well as results from our empirical studies on smart cities all over the world.

This Smart Cities, Smart Government, and Smart Governance Minitrack will open discussions and rise challenges related to: the implications for future Big Data practices and the roles of national networks; the implications for the theoretical development of e-government research; the role of leadership and the influence of mayors on the practices of Big data in different institutional and governance contexts; the decision-makers perception of security issues; the collaborations between decision-makers and other actors in smart cities initiatives; the links between human mobility and energy use and strategies to be set up; informational urbanism; ... and many others.