Smart Cities and Smart City Government Minitrack
(Introduction)

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Innovation, and technological innovation in particular, can help city governments to meet the challenges of urban governance, to improve urban environments, to become more competitive and to address sustainability concerns. To prevent and manage these challenges, cities need to operate in an innovative way. In this context, the smart city approach is emerging as a way of solving tangled and wicked problems.

Although the literature is rich in references to the smart city, it is also fragmented: this is still a fuzzy concept that is not being consistently used. Despite the different definitions and studies on smart cities, there seems to be agreement on the fact that the smart city is a multidimensional and multifaceted concept that goes beyond the mere use of technology and urban infrastructure. Although technology is a necessary condition for a smart city, it is not the only one. City administration and management, information integration, data quality, privacy and security, institutional arrangements, and citizen participation are just some of the issues that need greater attention to make a city smarter today and in the near future. In this context, the Smart Cities and Smart City Government minitrack aims at exploring these issues, paying particular attention to the role of citizens and other stakeholders in the development of smart cities initiatives. It also aims at focusing on the orchestrated interplay and balance of smart governance practices, smart public administration, smart resources and talent leverage in urban and regional spaces facilitated by novel uses of information and communication technologies (ICT) and other technologies.

The four papers included in this minitrack represent different methodologies, theories, conceptualizations, and assessments of smart cities. Together, they offer a platform for discussion of emerging and innovative research in this subject.

In the first one, "A Tale of Two "Smart Cities": Investigating the Echoes of New Public Management and Governance Discourses in Smart City Projects in Brazil", Erico Przeybilovicz, Maria Alexandra Cunha, Javiera Fernanda Medina Macaya, and João Porto de Albuquerque explore the potential influence of New Public Management and e-governance discourses on the use of information technology in smart city initiatives in Brazil. The authors conclude that the role of technology reflects both discourses and show that current initiatives in Brazil are characterized by a latent tension between top-down and bottom-up approaches. They further argue that smart city success depends on the interaction and synergic action of key actors (public bodies, universities, and private companies), which might not always share the same vision nor have the same expectations.

In the second paper, "Understanding the Adoption of Smart Community Services: Perceived Usefulness, Enjoyment, and Affective Community Commitment", Ruizhi Li, Qian Huang, Xiayu Chen, Bowen Zheng, and Hefu Liu investigate smart community services adoption by residents in China and identify users' perceived usefulness, perceived enjoyment, and affective community commitment as important determinants of such adoption. By administering a survey to 191 citizens, Li et al. conclude that affective community commitment, i.e. identification with the values and goals of the community, plays a major role in smart community services adoption. Further, they suggest that affective commitment weakens the effect of perceived enjoyment although it has a positive impact on perceived usefulness.

The third paper, "Online Activities to Mobilize Smart Cities", conceptualizes smart cities as dynamic living systems that include hard (unchanging) and soft (changing) elements. Mihoko Sakurai and Øystein Sæbø, its authors, explore those soft key elements, such as human behavior, that enable the organization of a dynamic structure. By analyzing the case of Panasonic's sustainable smart town initiative in Japan and that of online communities for political communication in Italy, the authors analyze the contribution of citizen engagement in online activities to the development of smart cities. They conclude that 1) there is a need for further research on the role of

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online activities in smart cities initiatives, 2) the three main components of online activities, knowledge generation, information sharing, and collective action, are interrelated, 3) the involvement of people in in city related decision-making processes is key, and 4) online activities design should allow for a high number of participants.

Finally, the last paper, "A Requirements Framework for the Design of Smart City Reference Architectures", proposes a set of requirements for the design of smart city reference architectures, defined as generalized models of several end systems that share one or more common domains. By conducting an extensive literature review, the authors, Viviana Bastidas, Markus Helfert, Marija Bezbradica, present a design that differentiates between system functional requirements (resource discovery, resource management, data management, event management, code management, application run-time, external data access, software engineering tools, definition of a city model, definition of business models, city-oriented approach, and cost minimization) and system non-functional requirements (scalability, security, trust, privacy, availability, reliability, real-time, interoperability, context-aware, flexibility, heterogeneity, integrity, adaptability, extensibility, configurability, and service-based).

These four papers all contribute to the minitrack's goal by helping to build on our understanding of the foundations of smart cities and smart city governments as a study area and as a practice priority. Through the efforts to better understand stakeholders (including citizens) and their needs, strategies, technological developments, and specific initiatives, the papers contribute to analytical and practical developments and trends.