Editorial: Smart Cities

Iivari Kunttu, Guest Editor

Welcome to the September issue of the Technology Innovation Management Review. As a guest editor, it is my pleasure to introduce this month's editorial theme Smart Cities. The first three papers included in this special issue originate from papers presented at the ISPIM Connects Ottawa event held in Ottawa, Canada, April 7-10, 2019. One of the focal topics of the event was innovating with government, to which the theme of this special issue brings new insights from the viewpoint of smart city development. As the smart city concept brings together technological development, government and different layers of society, it utilizes various technological enablers, such as the internet of things (IoT) and artificial intelligence (AI) to provide citizens with new kinds of services in their everyday living. However, in addition to technical innovation, the development of smart city areas involves the changing roles of citizens, service providers and city authorities. This, in turn, has innovative impact on business development, service development and administration in various layers of developing urban areas. All of this focuses nicely around the theme of innovating with government at the ISPIM Connects Ottawa event.

The first paper in this special issue gives an overview of some of the academic and practical research being made about smart cities. This paper, written by Ruohomaa et al., "Applying the Smart City Concept in Small Cities", has a particular focus in smart city development strategies adopted in small cities. In this effort, it presents three example cases of how small cities have participated in smart city activities in Finland.

The paper authored by Pulkkinen et al., "Smart Mobility: Services, Platforms and Ecosystems", considers the topic of service business development in terms of operating and maintaining a vehicle fleet in a smart city context. The paper focuses on smart mobility as an important and emerging area of service business development in smart cities. The authors conclude that to create a uniform environment for service business development in this context requires three main elements: a service ecosystem, relevant digital platform, and service portfolio that glues the ecosystem and platform together to create the business solution.

The paper by Jussila et al., "Open Data and Open Source Enabling Smart City Development: Case Study - Häme Region", highlights the importance of utilizing open data and open source software development in the process of creating new and innovative city services. Open technologies provide opportunities for networked collaboration in service development between cities and third-party developers. The paper presents two practical case examples that utilize open technologies in smart city development, including a centralized open service to collect and publish event-related data in cities, and an open-source software-based smartphone application that provides citizens with the most common city services. Both examples have been implemented and piloted in the city of Hämeenlinna, Finland.

Einola et al. consider in their paper open and participatory strategy process in the smart city context. In "Open Strategy in a Smart City", the authors show how crowdsourcing can be used as an effective tool for citizen participation in developing city strategy. The study utilizes the data obtained from survey responses by almost 2000 Vaasa city citizens, who addressed the role of an open strategy in developing their smart city.

The paper of Suominen et al., "World Heritage meets Smart City in an Urban-Educational Hackathon in Rauma", considers smart cities from the viewpoint of cultural heritage. The paper uses a UNESCO World Heritage city, Rauma, as a case example that integrates its historical uniqueness with modern city services. In their study, the authors present urban and educational hackathon as an innovative development method for smart city development.

There is a wide consensus among the research community on the need to develop the concept of smart cities because of growing urbanization, user expectations, technological development, and environmental challenges. The contributions included in this special issue of the TIM Review provide covering insights into smart city development not only from a technological perspective, but also with viewpoints about service business development, utilization of open technologies, participatory development processes, and inclusive strategizing. For this reason, I hope the content of this special issue will be of the interest to the TIM Review audience, as well as for scholars and practitioners contributing to smart city development.

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About the Guest Editor

Iivari Kunttu holds a PhD degree in Information Technology from the Tampere University of Technology (TUT, 2005), and a PhD degree in Economics (management) from the University of Vaasa, Finland (2017). Currently he acts as Principal Research Scientist in Häme University of Applied Sciences. In 2012-2017, he held an Assistant Professor position in Department of Management at the University of Vaasa. He has also held several R&D Manager and R&D process development specialist positions in the Nokia Corporation, and project manager positions in TUT. His current research interests include R&D and innovation management, data analysis, business development, as well as digital services. His works have been published in such international journals as *Pattern Recognition Letters, Machine Vision Applications, Optical Engineering, Journal of Telemedicine and Telecare, Annals of Long-term Care, Technovation, Industry and Innovation,* and *Technology Innovation Management Review.*

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