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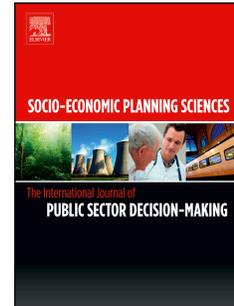
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The Significance of Digital Data Systems for Smart City Policy

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Abstract

Our planet is gradually moving towards an urbanized world. Modern urban agglomerations tend to turn nowadays into advanced information hubs supporting a smart management of dynamic urban systems. The currently popular notion of ‘smart cities’ aims to provide a new perspective for sustainable and high-performance strategies of city stakeholders in our ‘urban century’. In this context, digital information technology provides a new tool for efficient and effective management and planning of urban space, inter alia in the field of transportation, environment, public facilities or advanced service provision to citizens. This paper aims to offer, first, a concise overview of the emerging opportunities of information and communication technology (ICT) for smart urban policy; digital technology in particular, appears to provide novel pathways for modern planning strategies in smart cities. Against this background, the paper sketches out the complex force field of global urbanization phenomena and highlights the data and information needs for strategic planning of cities (using inter alia as a framework the so-called ‘urban piazza’ strategy framework). Secondly, various new decision support tools that are currently emerging and that offer a new promising scope for handling complex urban management issues (for instance, on accessibility, congestion, safety or sustainability) are briefly presented. And finally, the potential of such digital data systems for urban management and policy is concisely illustrated by means of some recent applications in the area of smartphone data systems. The paper concludes with a discussion of the challenges ahead for urban policy, inter alia by paying attention to institutional and governance aspects of ‘big digital data’ management in urban systems.

Key words: digital data, smart city, big data, urbanisation, urban piazza, urban facebook, mobile phone data.

Highlights

- The paper positions smart cities in the emerging ‘urban century’.
- It highlights the importance of digital data for smart city policy.
- It provides illustrative applications of the use of smartphone data for urban management.

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