

Marvin, S., Luque-Ayala, A. and McFarlane, C. (eds.): Smart Urbanism: Utopian Vision or False Dawn? Abingdon–New York, Routledge, 2016. 196 p.

Smart city as a key concept has become prominent in urban planning for the last few years. It is increasingly cited as a fundamental response to meeting present and future challenges of rapid urbanisation. Smart urbanism promises to provide optimised, high-tech solutions to our contemporary socio-environmental urban problems such as transport congestion, resource limitation and climate change. The emergence of the notion of smart city is seen in various strategic programmes and initiatives.

According to critical social scientists, smart urbanism is one of the most popular urban development visions of the 21st century (together with resilient and sustainable cities). Contrary to the earlier concept of the creative city, this idea has been introduced by a small number of multinational companies. For example, Cisco started to use it for the first time in the late 1990s. Currently, IBM is one of the largest contributors in developing smart technological initiatives, focusing on data collection systems and public administration management (e.g. urban safety management, healthcare and energy distribution – VANOLO, A. 2016).

IBM's own smart 'philanthropic' initiative, the Smarter Cities Challenge is one of the best examples of globally circulating smart urbanism policy mobility (WING, A. 2015). It is also necessary to note that more than 50 percent of the recent smart urban development projects worldwide have focused on innovations in transportation and urban mobility, making the topic of smart urbanism and this book as well very relevant for human mobility research.

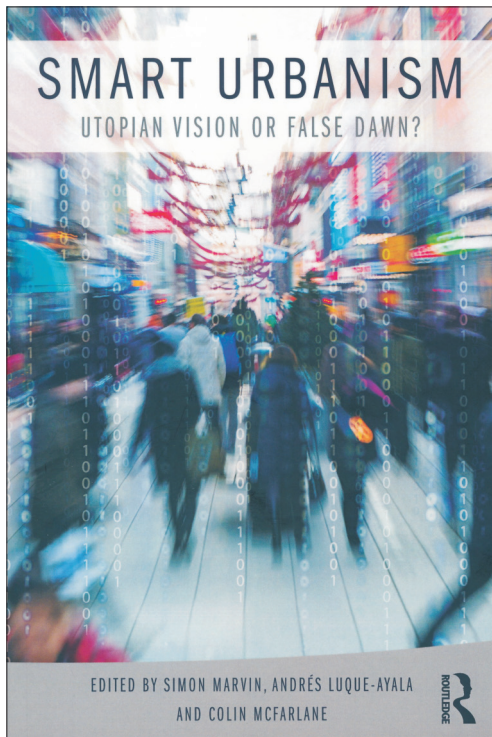
Most of the brand new, state-of-the-art smart or 'ubiquitous cities' are concentrated in East Asia and the Middle East (e.g. Songdo, Masdar City) but the concept is becoming very popular in Europe as well. Although several large-scale smart initiatives are financed worldwide to improve the technological efficiency of cities, the actual meaning of the smart city is still unclear and undefined.

VANOLO, A. (2016) classifies the growing academic and policy literature on smart urbanism into three broad sections. The first one has a focus mainly on the management and technological issues of smart cities. The main points of analysis of this literature are the potential opportunities and problems of smart technology implementations in urban contexts. These analyses tend to have a problem-solving approach focusing on achieving optimal outcomes.

Second, there are emerging critical debates within social sciences on smart urbanism. Here the focal points are the relationship between smart city initiatives and neoliberalism, the corporate- and profit-oriented characteristics of smart urban development projects, the changing power relations generated by those initiatives, and the management of big data and surveillance within the conditions of smart urbanism.

Third, a rather new direction in the research on smart urbanism critically explores various smart city initiatives, looking "beyond both the celebrative and always critical approaches," analysing diverse ways in which new urban technologies are used, negotiated or overturned by citizens (VANOLO, A. 2016; p. 28).

The chapters of 'Smart Urbanism: Utopian Vision or False Dawn?' can be categorised into the second and third sections of academic literature on smart cities. This edited volume critically evaluates the promises, drivers, potentials and consequences of smart urban planning. It analyses what drives smart city initiatives and it aims at advancing the critical academic research on smart urbanism. The book consists of 11 chapters, including an introduction and a conclusion, written by the three editors (Simon MARVIN, Andres LUQUE-AYALA and Colin McFARLANE, three human geographers based at Durham and Sheffield Universities in the UK) and 17 contributors from



Australia, Canada, Germany, Ireland, South Africa, Switzerland, the United Kingdom and the United States. Although critical academic research on smart urbanism is emerging, current investigations are mainly single-city case studies and “fragmented along disciplinary lines” (p. 1). However, ‘Smart Urbanism’ is truly interdisciplinary. Beside human geographers, the contributors have diverse disciplinary backgrounds such as sociology, philosophy, architecture, urban planning, critical media studies or geocomputing.

The origin of this edited volume can be linked to the international workshop on ‘Smart Urbanism: Utopian Vision or False Dawn?’, co-organised by the editors at Durham University in 2013. As MARVIN *et al.* claim in the foreword of the book, this workshop was one of the first international forums for academics and professionals from all over the world to discuss critically the concepts and practices of smart urbanism.

LUQUE-AYALA, McFARLANE and MARVIN state three main objectives of this volume in the introduction. First, developing a critical and interdisciplinary approach and investigating the emergence of smart and digital modes of urbanisation. Second, analysing extensively the key trends, forms and consequences of smart urban governance from an internationally comparative perspective. Third, exploring how specific urban conditions facilitate and coerce transitions towards smart urbanism and support the co-production of alternative pathways.

Each chapter of the volume aims at analysing a specific dimension of smart urbanism. Chapter 2 by ROB KITCHIN, TRACEY P. LAURIAULT and GAVIN McARDLE introduces the five most common critiques of smart cities: the promotion of technocratic and corporatised forms of governance; the creation of buggy, hackable urban systems; the implementation of panoptic surveillance and predictive profiling; and a false portrayal of data and algorithms as objective and non-ideological. Then, the chapter focuses on urban data and it investigates city benchmarking and real-time dashboards. KITCHIN *et al.* challenge the common realist epistemological claim “to show the city as it actually is” (p. 29).

Chapter 3 continues to clarify the claims to objectivity, truth and evidence in the smart cities discourse. DONALD McNEILL investigates IBM’s Smarter Cities Challenge and argues that visual technologies are crucial to both the ontological (cities that cannot be seen in such a way are by definition not smart) and practical (“cities that cannot be viewed cannot be made to work in a smart manner”) structures of smart cities (p. 35). One of the key contributions of this chapter is identifying a link between the technological practices of 19th century urban transformations and the smart city initiatives pursued by IBM and other corporations.

Chapters 4 and 5 focus on the emergence of smart urbanism narratives in the Global South, respectively

in India and South Africa. In Chapter 4, AYONA DATTA analyses the social and political consequences of local smart initiatives. The empirical part of the research focuses on Dholera which is allegedly the first smart city in India. This technology-driven urban project turns its back to the challenges of India’s traditional cities with pollution problems, traffic congestion and slums and engages with the global values of smart urbanism. DATTA uncovers that India’s smart city programme is a process operating through land accumulation by dispossession, a form of politics connected to dispossession, modernisation and liberalisation.

In Chapter 5, NANCY ODENDAAL investigates the inclusion of e-governance and digital infrastructure development into urban objectives. In contrast with the portrayal of smart urbanism in India, ODENDAAL argues that smart initiatives from the bottom up can play an important role in expanding democratic access and realising a commitment to social development. However, the mobilisation potential of smart initiatives is restricted by the relatively low internet penetration rate and the preference for face-to-face communication in many countries of the Global South.

Chapters 6 and 7 apply Foucauldian approaches and examine the power, knowledge and governmentality implications of smart urbanism. In Chapter 6, JENNIFER GABRYS emphasises an important but often overlooked part of the smart cities discourse, the re-articulation of smart cities as sustainable cities. One of the dominant ways in which sustainability is achieved in smart cities is through ‘citizen sensing’, sensor-based ubiquitous computing across urban infrastructures. GABRYS argues that smart urbanism has the potential to rearrange our understanding of citizenship, where “both cities and citizens become functional datasets to be managed and manipulated” (p. 10) in order to control environmental governance and ways of life. In Chapter 7, FRANCISCO R. KLAUSER and OLA SÖDERSTRÖM analyse the implication of governing the city through software-mediated techniques of regulation and management at a distance. These mechanisms of regulation and management are based on well managed assemblages of computerised systems that operate as channels for multiple forms of data collection, transfer and analysis. KLAUSER and SÖDERSTRÖM use Foucault’s concept of security in order to uncover the power and regulatory dynamics within smart urbanism.

In Chapter 8, by using assemblage thinking, GARETH POWELLS, HARRIET BULKELEY and ANTHONY McLEAN investigate how the electricity grid is reconsidered around new conditions of smart urbanism. Their research on energy network demonstrates how the making of the smart grid process is a highly unequal process. Specific political, social, economic and environmental processes are stressed while other issues are marginalised. POWELLS *et al.* challenge the traditional urban assemblage literature (which emphasises

the multiplicity and complexity of projects, practices and outcomes of cities as assemblages). They suggest that there are some projects and forms of governance that are more central of smart urbanism than others. The resulting uneven power geometries mean that the experience of smart grid is not equal for all citizens.

Chapters 9 and 10 focus on the future of smart urbanism, both the dystopian and more optimistic perspectives. In Chapter 9, Nerea CALVILLO, Orit HALPERN, Jesse LECAVALIER and Wolfgang PIETSCH investigate Songdo, a new state-of-the-art smart city in South Korea, where Cisco plays a crucial role in developing digital connectivity and ubiquitous computing infrastructures. Songdo is portrayed as a new form of digital urban experimentation where all urban forms and beings are to be digitally interconnected. In this new urban world, data drives urban transformations and a rearrangement of urban life. The half-built Songdo serves new urban ontologies that are digital, abstract and oppressively real (e.g. cameras, control rooms, windowless data centres).

Chapter 10 offers a different perspective, the possibilities of smart urbanism beyond corporate imaginations. Robert G. HOLLANDS reminds us of the ideological nature of smart urbanism – neither technology nor its corporate urban reincarnation will make cities more prosperous, efficiently governed, less environmentally wasteful or equal. On the other hand, as an alternative vision of smart urbanism, HOLLANDS explores the possibility of more modest and small-scale interventions, where human initiatives and technology are used in democratic ways to support progressive ideas and make cities more sustainable.

The conclusion, Chapter 11, identifies key implications of the book for urban theory, urban governance and methodological challenges of smart urbanism. McFARLANE, MARVIN and LUQUE-AYALA argue that smart urbanism processes seem less a radical shift in urban socio-environmental governance but more a set of specific types of limited interventions which are connected to our existing ideologies, debates and socio-economic practices. KITCHIN *et al.* identify the logics of smart urbanism linked to the technomanagerial vision of urban governance. This view reduces urban problems to technological and data-driven issues where everything can be monitored and measured.

Apart from the technocratic view, smart urbanism stresses the entrepreneurial and security-oriented imaginaries as well. However, McFARLANE *et al.* suggest that these visions of smart urban governance are not exhaustive and they are only partially operationalised. HOLLANDS argues in Chapter 10 that smart urbanism can be linked not only to urban neoliberalisation but to alternative forms of smart urbanism as well that supports a more democratic and participatory use of technology (e.g. using digital media to facilitate collective action in DIY urban design).

To conclude, this edited volume provides an excellent critical analysis on the emergence of the smart cities discourse and its impact on the urban economy, environment, politics and everyday life. While critical urban theorists need to engage with the analysis and criticism of smart urbanism and develop alternatives to the neoliberal, technocratic, positivist and surveillance-related imaginaries of smart urban projects, it is crucial for this critique not to overemphasise the importance of smart logics in urban governance. Since the mechanisms of smart urbanism are still very fragmented, it might be too early to talk about a radically new way of urban governance.

Although smart urban initiatives are at a very early stage in Hungary and other East Central European countries (and there are no case studies from this region in the book), it is still necessary to critically understand this new direction in urban governance with its rising popularity in Europe. One of the main reasons behind the emergence of the smart cities discourse in the continent is the embeddedness of the concept in the European Union research funding system. Large-scale financial support is provided within the current Horizon 2020 programme to reduce greenhouse gas emission through improving the technological efficiency of buildings, energy and transportation systems. Although several billion Euros are allocated to fund these projects, the actual concept of smart city is still linked to rather simplified visual imaginaries and vague terminology (VANOLO, A. 2016).

‘Smart Urbanism’ is a major reference point in key debates about smart urban governance. The rich and theoretically informed case studies on the Global North and South as well make the book a must-read for graduate students and early career researchers in urban studies.

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