Rethinking the Smart City: Democratizing Urban Technology by Evgeny Morozov and Francesca Bria (New York: Rosa Luxemburg Stiftung)

The book *Rethinking the Smart City: Democratizing Urban Technology* by Evgeny Morozov and Francesca Bria, provides a timely critical reflection of the smart city, and the importance of its future developments for both citizens and municipal authorities alike. The book offers a critical look at a term that is often simplified as a cure-all for solving problems in the city. The current way of operating the smart city, as put forward by the authors, cannot be understood without also looking at the political environment it resides in. That is, the principles of neoliberalism, including predatory capitalism, short-term outlooks, speculative and risky investments with maximum profits but minimal investment into the long-term. The authors argue that cities should think in terms of stability, sustainability, and the longer-term, providing the reader with a variety of case studies and examples of cities that have tried to break free from the hold of neoliberalism so that citizens can take control and be fully invested in what happens to their data and their city.

The book is separated into two sections. The first section primarily deals with the concept of 'smart', and provides an overview of the smart city, delving into the close connection between the policies of the smart city and those of neoliberalism, including the transition of the urban landscape into privatised Keynesian cities, the predominance of smart austerity, and finally the potential solution to the grip that corporations and neoliberalism have over the smart city: that of technological sovereignty. The focus on speculative markets, private ownership, and short-term focus at the expense of the long-term has led to cities not having control over how they are managed, and are instead controlled and shaped by a few corporate individuals and technology giants.

The idea of smart – attributed to a variety of objects, be it the smartphone, the smart bus, or the smart city – is ubiquitous. Yet, as the authors note, what smart is, or what it means for us, and what makes something truly smart, is still something of a mystery: "Smart" – that quintessential adjective of our digital age, which promised so much yet delivers so little" (p. 2). Noting the flexible nature of the term smart, the authors explain their definition of smart to aid the reader in context of the book: an expansive definition that includes the use of technology to improve and acquire resources (p. 2). Stating this definition early on in the book gives the reader insight into the slippery nature of the term. It also allows for the authors to pinpoint what they consider the term to encompass and communicate ideas beyond any strict definitions of what the tech industry deems to be smart. The authors also note that querying the definition is not the point – the point is the consequences that arise when a city is made to be smart.

The idea of the smart city is often offered up as some sort of panacea for the urban environment. Whilst the purveyors of smart offer their products and services as a glamourous way of rejuvenating the city, the authors take a more critical look at these benevolent technology giants, noting that many municipal authorities are having to hand over their citizens' data to keep up with trends and improve the lives of their residents. The word used a number of times in the first section of the book is "promise". The smart city promises to make lives easier, the companies behind the moniker "smart city" promises cities can have a better, more efficient existence, if only they go smart. However, as the authors point out,

this reliance on technology firms to perfect the city can leave those who are less fortunate behind, with bids to make cities smart not necessarily being done for the citizens, but rather as a way to attract foreign capital. The authors make a cogent point for the way that private firms think of cities: as problems to solve. How can they optimise the city? When austerity squeezes budgets and the services are seen as so helpful – the authors note the use of Google AI to help the NHS in the UK – how can cities refuse the help of these firms? The city becomes reliant on private companies and technology firms to operate, whilst allowing their citizens' data to become a commodity. The authors state that a lot of this data collection is for AI usage, rather than advertising. Although a convincing point is made about the development of AI being a major reason for the use of harvested data, there is not much further detail given, and the power of the marketing industry – worth millions a year – should not be discounted.

Unlike many analyses of the smart city, the book offers insights from a socio-political angle rather than a technological one. The authors note that the connection between neoliberalism and the smart city – such as that of data-gathering, quantification, the role of private companies in traditionally public domains – is under-explored. The fundamentals of neoliberalism, such as the focus on constant auditing and comparison with everything can only be achieved by a city which can actively gather data. The book is critical of neoliberalism and its constraining effect on municipal authorities. Neoliberalism, and by extension the smart city, have meant cities have become inhibited in what choices they can make for the people that live there. The authors note the use of surveillance as a large part of the smart city's operation; in a move that echoes Foucault's Panopticon (Foucault, 1985), the authors note that private firms must extract the "maximum amount of value from resources under management" (p. 11) in order to be successful, which means the use of monitoring as a means to produce compliance. This can then lead to corporations distorting the numbers and municipalities and ultimately the individuals living in the city being cheated.

Section one ends with the authors making the case for technological sovereignty and transferring data ownership from technology conglomerates back to the city and those who live in it. This then leads neatly into section two which provides potential ways of creating a non-neoliberal smart city such as giving data ownership back to the people, transitioning digital infrastructure such as software to open-source rather than proprietary, and encouraging public rather than private ownership.

Instead of the current gig economy, the book stresses the need to move to a more sustainable, inclusive, and stable economy. A city that is citizen-focussed rather than corporate-focussed. The latter part of the book serves as an answer to the speculative, short-term risky economies of neoliberalism. This part of the book provides helpful examples which showcases some of the ideas put forward. The authors suggest a new status quo, one in which data is controlled and owned by the city and its citizens. Such practices allow for new actors such as SMEs, NGOs, and co-operatives, to create new resources from the information gathered by the city. Towards the end of the book the ideas become somewhat repetitive, however this does not diminish the cogency of the points made, and the wide range of case studies provided to the reader amply back-up the arguments. The use of these case studies is both illuminating and provides depth to the book. Although it may be difficult for readers to gauge how well cities can really wrestle control of the urban landscape away from private corporations, the use of these case studies supports the book's statements of cities being able to retain technological sovereignty whilst being smart.

A substantial amount of the last part of the book is spent discussing informational self-determination, which is especially important in terms of technological developments, considering how often innovations in technology are pursued at the expense of privacy concerns. The authors effectively present what is at stake for those citizens living in the smart city: determination over what happens to their information and their privacy. However, there are some points left underexplored, such as potential ethical issues

when using data and the need for data literacy. The authors note that data should be treated with the "appropriate privacy protections" (p. 32), the potential problem here is that whoever use it, be it private companies, other city dwellers, or local co-operatives, there is still an issue of citizens relinquishing their data, to the potential detriment of individual privacy; if privacy is indeed a fundamental right, why should data be allowed to be used by anyone? Although the importance of information self-determination is discussed, the ethical issues could have perhaps been probed further.

Other points that could be discussed further are the move towards digital society and what this could mean for those not comfortable using new technologies. Automatically providing digital solutions, especially targeting a new, younger, demographic would be innovative, and the authors point to the optimistic outlook of digital democracy – the possibility of new models of participating in democratic elections being an area with both innovative and inclusive potential – but the possibility of leaving behind those without the digital skills is not fully explored. The authors point to the opaque nature of smart yet also use terms such as digital native, which has also been subject to criticism (Kirschner & De Bruyckere, 2017). There is also no guarantee that municipal authorities will always approach ideas with a long-term outlook in a way that private companies will not, however if citizens are invested with what happens to their data then perhaps this will lead to a more sustainable, stable outlook.

Towards the end of the book, a significant portion is dedicated to additional information boxes, which, whilst illuminating, can cause the reader to lose track. The use of these boxes to focus in on case study examples is helpful however towards the end they become so expansive as to take over the page, rendering the last few pages somewhat confusing and difficult to navigate.

The strength of the book lies in the largely unexplored aspects of scrutinising the smart city in a way that other analyses have ignored, such as the economic and social context of the smart city, and the connections the current versions of the smart city have to neoliberalism. The authors look at the smart city through a socio-political lens, which uncovers pertinent cases which would otherwise be left out if analysis was done from a purely technological perspective. The analysis of the smart city is also both in-depth and critical, exposing the flaws of something that is often presented as a flashy solution to urban issues, and the difficulties faced when trying to move away from a model based on neoliberalism. The book also features a large and varied number of case studies to illustrate and back-up the points put forward by the authors.

The book, whilst in-depth is ideal both for those familiar with the debates surrounding the smart city, and those who are new to the topic. For those wishing to look at an alternative means of providing the smart city – one without the focus on metrics and privatisation – there is much guidance and a variety of examples of how to do so.

On p. 53, the authors state that "An effective battle against the smart city agenda – at least of the pseudo-democratic, neoliberal variety – requires clever, progressive alliances between cities, movements, and political organizations". The way this is framed – as a war – reflects much of the way this book is presented. This is a fight against the predatory practices of neoliberal capitalism, and the commodification of individuals' data. Whilst taking this stance the authors also promote the idea of alliances between citizens, cities, and political entities, something that is essential if smart cities are to truly work for those living in them. Whilst it is not clear who is going to win the war, or how bloody it will be, it is clear that battle lines are emerging and that the conflict will necessarily involve technology companies, local authorities and importantly citizens and service users.

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