




Smart City Citizenship

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ABSTRACT



Against the backdrop of the current hyperconnected and highly virialised post-COVID-19 societies, we, ‘pandemic citizens’, wherever we are located now, have already become tiny chips inside an algorithmic giant system that nobody understands. Furthermore, over the last decade, the increasing propagation of sensors and data collections machines and data collections machines in the so-called Smart Cities by both the public and the private sector has created democratic challenges around AI, surveillance capitalism, and protecting citizens’ digital rights to privacy and ownership. Consequently, the demise of democracy is clearly already one of the biggest policy challenges of our time, and the undermining of citizens’ digital rights is part of this issue, particularly when many ‘pandemic citizens’ will likely be unemployed during the COVID-19 crisis. This book suggests reverting the intertwined mainstream paradigm of the technocratic policy scheme popularised as Smart City. The Smart City paradigm has increasingly been influenced (and even shifted) by the debate regarding urban liberties, digital rights, and cybercontrol by leading us to the consideration that actually the Smart City incarnates a society of techno-political control, which in itself has flourished abundant critique from cybernetic urbanism. To provide a constructive standpoint and acknowledging that since 2018 GDPR may have well contributed to open up a pertinent debate, this book asks whether it is possible to alter existing data governance extractivist models to incentivize further democratic citizenship through data ownership and technological sovereignty. As such, the book highlights citizen’s perspective and social accountability in both transitional and experimental frameworks by pointing out the importance of creating platform-based alternative urbanism such as data and platform co-operatives. To examine citizenship is always important but perhaps never more urgent than right now in the fragile post-COVID-19 hyperconnected societies. Amidst the AI-driven algorithmic disruption and surveillance capitalism, this book sheds light on the way citizens take control of the Smart City, and not vice-versa, by revolving around the new book entitled Smart City Citizenship recently published by Elsevier. By following the methodological and conceptual proposal of the book, the keynote conference will introduce nine key ideas including how to (1) deconstruct, (2) unplug, (3) decipher, (4) democratise, (5) replicate, (6) devolve, (7) commonise, (8) protect, and (9) reset Smart City Citizenship.

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1. Introduction

Citizens in Europe have likely been pervasively surveilled during and probably as a result of the COVID-19 crisis (Aho & Duffield, 2020; Hintz, Dencik, & Wahl-Jorgensen, 2017; Kitchin, 2020;

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Zuboff, 2019). Despite the fact that the homologation of the vaccine has sped up, its equitable distribution globally cannot be ensured yet. As such, the coronavirus does not discriminate and affects citizens translocally, yet it has unevenly distributed economic and social impacts across and within state borders, producing a new pandemic citizenship regime that exposes health, socio-economic, cognitive, and even digital vulnerabilities. But how can e-democracy be ensured for all citizens while also creating further democratic citizenship to avert the algorithmic and *data-politic* (data oligopolies; Hand, 2020; Stucke & Grunes, 2017) extractivist hegemonic paradigm as well as Orwellian cybercontrol through massive contact-tracing apps that serve as a digital panopticon of the Leviathan (Kostka, 2019)? To examine new emerging citizenship regimes is always important but perhaps never more urgent than right now in fragile post-COVID-19 hyperconnected societies. COVID-19 has hit European citizens dramatically, not only creating a general risk-driven environment encompassing a wide array of economic vulnerabilities but also exposing them to pervasive digital risks, such as biosurveillance, misinformation, and e-

democracy algorithmic threats. Over the course of the pandemic, a debate has emerged about the appropriate technological response when governments use disease surveillance technologies to tackle the spread of COVID-19, pointing out the dichotomy between state-Leviathan cybercontrol and civil liberties, and further requesting in-depth debates. Moreover, the giant technological flagship firms of surveillance capitalism, such as Google, Amazon, and Facebook, have already assumed many functions previously associated with the nation-state, from cartography to the disease surveillance of citizens. But particularly, amidst the AI-driven algorithmic disruption and surveillance capitalism, this book sheds light on the way citizens could take control of the *Smart City*, and not vice versa.

2. Summary

This book presents nine intertwined key ideas that show systemically a path to follow to further experiment using action research methodologies (not a recipe) as a technological route for smart citizen action from the social innovation perspective as follows:

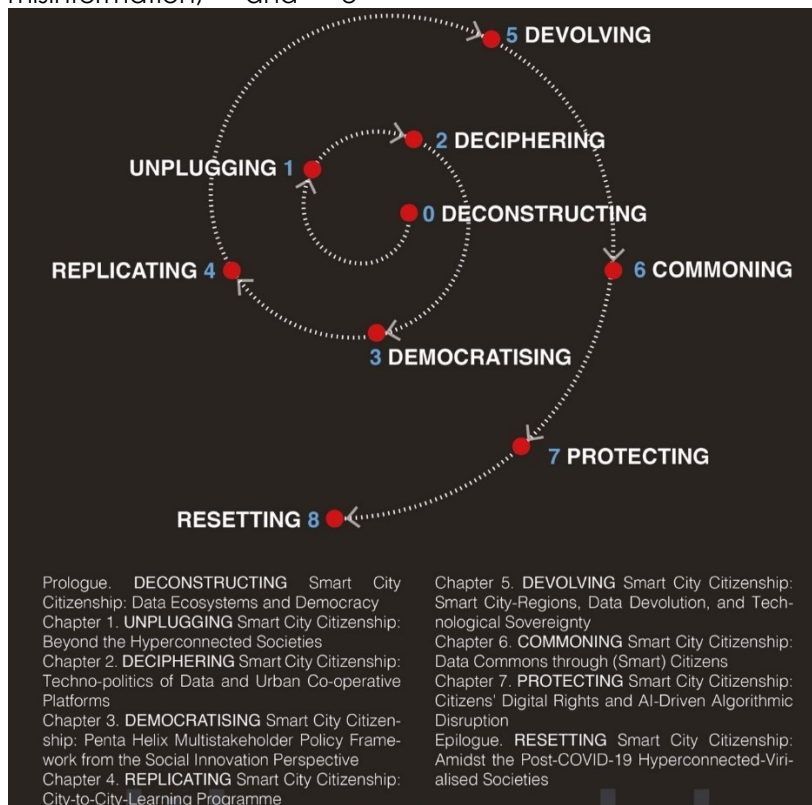


Figure 1. Smart City Citizenship as a spiral consisting of 9 intertwined key ideas from the Social Innovation perspective.

The demise of democracy is already one of the biggest policy challenges of our time that

urgently requires deconstructing the aftermath of the extractivist models' negative

externalities affecting pandemic citizens. Debating on the techno-politics of data for citizens cannot be seen as an operation of ethic washing; it should be about ownership and how to rescue democracy. Failing to do so could risk exposing democracies to the stealthy algorithmic manipulation of collective behaviours through social media, resulting in a dystopian populism.

Consequently, in the post-COVID-19 societies, unplugging or being offline is a nearly unaffordable privilege that very few dares to attempt. Potentially the opportunity to be offline has been rarely considered to be valuable so far. After the increasing enthusiasm for using data to improve the life of citizens in modern societies, the publication of a considerable amount of confidential information of citizens and heads of states via espionage, surveillance, dataveillance, and theft has somewhat altered the data enthusiasm of some communities (Lupton & Michael, 2017; van Dijck, 2014). An increasing number of voices note benefits to not being online constantly, thus challenging the widely spread techno-enthusiasm of the knowledge society. Hence, unplugging in the book is defined as a corrective from the corporate, top-down direction of the *Smart City* mainstream in favour of a transition towards the critical use of digital technologies enabling the construction of more democratic citizenship.

Therefore, deciphering the *Smart City* mainstream approaches requires a distinction between the hegemonic techno-centric *Smart City* approach and the new ongoing alternative intervention approach called an experimental city, a deep transition that aims to blend the interdependencies between various stakeholders to better re-align power relations and outcomes. It goes without saying that *Smart City* policy implementations not only have reduced the interdependencies among stakeholders to technocratic public-private-partnership (PPP) models but also have failed to question the identities of strategic stakeholders and how they uniquely prioritise their business and social models. Thus, three main questions are addressed in this book: (i) What prospects have existed so far for alternative funding and business/social models for cities? (ii) What practical/political interventions have been tried among stakeholders? (iii) To sum up, is another type of

(smart) city possible? That is, is there a 'third way' between the state and the market that overcomes the PPP framework?

Smart City policy implementations not only have reduced the interdependencies among stakeholders to technocratic Public-Private-Partnership (PPP) models but also have failed to question the identities of strategic stakeholders and how they uniquely prioritise their business/social models. Beyond these PPP models, little has been questioned about the strategic stakeholders who have been formulating the *Smart City* priorities. As a result, the book suggests democratising the *Smart City* by rethinking multistakeholder helix strategies by ensuring the complete democratic representation of diverse voices from each helix. Particularly, it proposes explicitly moving from the Triple and Quadruple Helix models towards Penta Helix, where social entrepreneurs, activists, bricoleurs, brokers, and assemblers play an important role as transformative intermediators resulting in a wide range of business and social models (Direct public Provision, PPP, Public-Private-Academic partnership, Public-Private-Academic-People partnership, by reaching out Urban/Data Commons as the highest degree of experimentation.

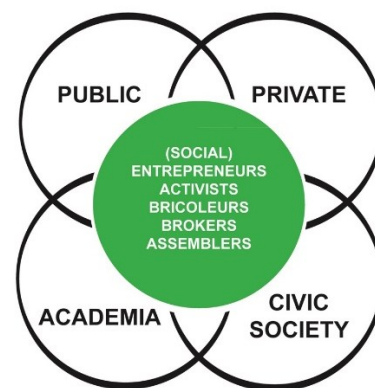


Figure 2. Penta Helix Multistakeholder Social Innovation Framework.

According to the urban scholar, Ayona Datta, the urban is not science. It cannot be replicated like other sciences. Surprisingly though, over the last five years, probably not only in the EC-H2020-SCC policy framework but also in other policy schemes in the Global North, replicating business models and projects have been defined as 'the possibility of transporting or copying results from a pilot case to other geographical areas'. As such, replication was defined by policymakers as

unidirectional, hierarchical, mechanistic, solutionist, and technocratic process among cities and their stakeholders. Strikingly though, over the last years, even several reports by the European Commission have acknowledged that replication is like the quest for the Holy Grail: everyone is searching but no one seems to be able to find it. Thus, and probably even clearer, in the aftermath of COVID-19 and because of the local implementations of the GDPR, the book argues that replication may not be happening among smart cities as it was anticipated. Hence, the fifth intertwined key idea refers to the given policy understanding of replicating urban solutions from city to city. The book suggests reverting the mechanistic and solutionist approach by adopting a mutual learning rationale among cities by establishing the City-to-City-Learning Programme being defined as multidirectional, radial, dynamic, iterative, and democratic. As the conclusion of replication, fieldwork research conducted in Nilüfer (Bursa province in Turkey), Essen (in Ruhr, Germany), and Lausanne (Switzerland) reveals that there is significant room for manoeuvre for local stakeholders in their ability to pick and choose, adapt, and prototype between innumerable intervention models and networks.

The six intertwined key idea focuses on the institutional and techno-political configuration of different city-regions devolving data to citizens. Insofar as data are contextual (Loukissas, 2019), this chapter examines how four city-regions (two in the UK, Glasgow and Bristol and two in Spain, Barcelona and Bilbao) dealt with data governance models. In the post-GDP context, citizens' data security and ownership ultimately need to be protected by localising personal data via grassroots innovation and platforms and data co-operatives. Data, being a public good, should be devolved and brought back to citizens, meaning that Data Devolution schemes through multi-level governance models should be implemented onwards. Considering how relevant the city-regional path-dependency is in each territorial context, and analysing in-depth four case studies, two in the UK, Glasgow and Bristol and two in Spain, Barcelona and Bilbao: fieldwork research found that the notion of Data Devolution is a key governance component for data ecosystems in Europe that is enabling some cities and regions to formulate their own smart governance policies. After

conducting fieldwork research in the four city-regions, the book identifies an implicit Smart city-regional governance strategy for each case study: Whereas in Spain, Bilbao could be seen implementing a Corporate-in-Transition strategy and Barcelona has been pushing ahead an Anti-Corporate but highly uncertain strategy; in the UK, Bristol attempted to implement a strategy based on an alternative open innovation model embodied by Bristol is Open umbrella and Glasgow has been moving from a conventional governance model towards its current claim on digital rights by being an effective part of the CCDD (led by Barcelona).

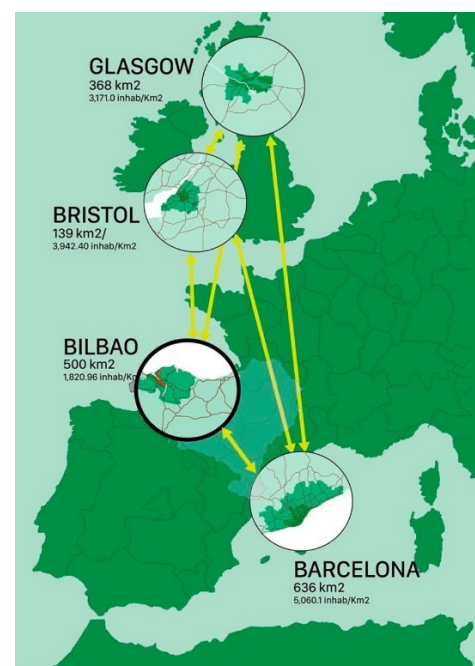


Figure 3. Data Devolution and Multi-Level Governance Models in four case studies: Glasgow and Bristol (UK) + Barcelona and Bilbao (Spain)

The seventh intertwined key idea demonstrates that unpacking the ownership of data and its governance structures and dynamics within their citizenries is as important as the collection, storage, and usage of data in AI-driven cities. As one of the core cases studies of the book, Barcelona leads this way by formulating policies that consider citizens decision-makers rather than data provides by communing their data. It is rather evident that the availability of data is and will be part of the new conditions in cities. Yet, unpacking the ownership of data and its governance structure and dynamics within their citizenries will be as important as the collection, storage, and usage of data in AI-driven cities. The future will probably show an



increasing number of city-regions rolling out unique Smart City-regional strategies. As a result of the ongoing fieldwork research on the case of Barcelona, findings revealed that the main digital policy framework coined by Barcelona was Data Commons including DECODE, DECIDIM, and METADECIDIM, among other initiatives related to Digital Social Innovation, Urban Commons, and Social Economy. Nonetheless, the book leaves one open question to be responded by further future research: To what extent Barcelona's ongoing strategy is little more than a declaration of intentions of a progressivist *Smart City* policy agenda? It remains to be seen. How could citizens decide, control, govern, manage, and ultimately, own their own data by being both conscious of digital rights to the city and aware of duties in the techno-political processes of city-making?

As a result of this, we reach the eight intertwined key idea: Protecting. This chapter argues that there is a need to establish pan-European Data Infrastructures and Data Institutions (collectively as Data Ecosystems) to protect citizens' digital rights in Europe. AI-driven algorithmic phenomenon has led to new consequences (such as hyper-targeting through data analytics, facial recognition, and individual profiling). This resulted in not-so-desirable outcomes, such as massive manipulation in the US and the Social Credit Systems in China. In contrast, these societal concerns raised a debate in Europe about digital rights and AI-driven algorithmic disruption by spurring a call to action (Dyer-Witthford, Kjoson, & Steinhoff, 2019).

Ultimately, the book ends up with Resetting. So far, the urban phenomenon and its sociotechnical controversies have been explicitly surfacing until we have reached this unknown and highly unexpected status of 'the new normal'. We all, Pandemic Citizens, sharing similar fears, uncertainties, and risks, are exposed differently depending on which country we call home and our related living conditions. Actually, this pandemic crisis has been gradually and pervasively fuelling data governance issues, which exposes pandemic citizens' vulnerabilities.

Alongside this general threat, several questions arise: (i) Should governments protect citizens from being infected even if this might mean establishing a new digital non-privacy norm? (ii) Will this pandemic crisis become an

algorithmic crisis, with serious side effects for governments worldwide? (iii) How can citizens organise themselves to establish new social capital that could overcome the post-COVID-19's social distancing measures? (iv) Could digital co-operatives (either platform or data coops) be the answer? (v) To what extent is possible to think in these terms seeing an increasing degree of individualism and selfishness caused by the pandemic fear and the general sense of uncertainty? (vi) Are we able to reset our cities and communities from the Foundational Economy perspective by putting in the centre what matters with the inevitable obligation to do the right thing after this reset (2020)? Against the odd, pandemic citizens are beginning to develop new ways to responding to the COVID-19, through mutualising and donating data using data altruism/donation, including the creation of platform and data co-operatives. Nonetheless, the book leaves one pending and open point for further research: It remains to be seen whether platform-based alternative urbanism such as platform and data co-operatives (among other data governance models) could very much revert extractivist data governance models by establishing a feasible and sustainable pathway onwards to foster further democratic citizenship (Bigo, Isin, & Ruppert, 2019). What is clear is that we must sharply hit the nail on the head, in this, final occasion. RESET.

3. Analysis

Methodologically speaking, in the book, Critical or Radical Social Innovation could be seen as the approach from where to conduct action research interventions to democratise smart cities through citizenship (Moulaert & MacCallum, 2019; Nguyen, 2017). Social Innovation in the book is defined as the capacity to elaborate alternative discourses and actions that are counter-hegemonic in terms of resistance and/or innovative transformations.

As such, the book is clearly analysing the following questions: (i) How can digital technologies transform the relationships between governments, business, and civil society? (ii) Which techno-political (power) relations and dynamics exist between these agents, and how do they change? (iii) Which roles do innovative applications of digital technologies and the use of newly emerging



technologies play in the post COVID-19 society? (iv) How do helix frameworks intersect with contact tracing and tracking apps? (v) What role do the public authorities and civic bottom-up initiatives play in addressing the power imbalances of the current data-driven smart cities' landscape (between data providers, data platforms, and ultimately, decision makers)? Critical or Radical Social Innovation may provide the lenses to better steer changing power-relationships among stakeholders.

4. Conclusion

COVID-19 has been a trigger for increasing the impact of digital transformations on the daily lives of citizens. However, little is known or has been explored in relation to the direct effects of Big Tech surveillance capitalism and the cybercontrol push by nation-state governments during this crisis on pandemic citizens. The book contribution could be summarised as follows:

- (i) It highlights citizen's perspective and social accountability in both transitional and experimental frameworks for reorienting smart cities by pointing out the importance of creating platform-based alternative urbanism such as data and platform co-operatives.
- (ii) In doing so, the book encourages further future interdisciplinary research agendas anchored in social sciences on the present and future techno-political challenges of citizenship in data-driven smart cities by reclaiming the original sense of sustainable peer-to-peer exchanges.
- (iii) Another conclusion that it could be drawn on the book is the fact that citizens can be effectively empowered in the emerging post-GDPR realm, creating more inclusive digital citizenship.
- (iv) In addition to this, probably we still may need to absorb the new techno-political awareness of the 'new normality' for democratic urban decision-making paying special attention to AI disruption and citizens' digital rights in the post-COVID-19 hyperconnected and highly virialized societies.
- (v) Ultimately, the book leaves an open question to the reader for being answered: It remains to be seen whether platform-based alternative urbanism such as platform and data co-operatives could

very much revert extractivist data governance models by establishing a feasible and sustainable pathway onwards.

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Conflict of interests

The author declare no conflict of interest.

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