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Data Power in Action: Urban Data Politics in Times of Crisis

Ola Söderström and Ayona Datta

Introduction: why data?

While working on this book, one of the editors had to handle the consequences of a cyberattack of his university server by Conti, an infamous Russian group of malevolent hackers. As a consequence, he had no access to all his files for weeks, and some of his personal data were accessible on the darknet. Faculty members were left to speculate why their university was targeted, what the hackers hoped to get out of this, and if a ransom was addressed to the direction of the university. This is one of many instances where our contemporary dependence on data and our related vulnerability becomes very tangible. It shows that data is everywhere, increasingly mediating and shaping all domains of life (work, leisure, kinship, friendship, sexuality).

Hacking, the term officially used to describe the above incident, seems inadequate though. This is a form of data theft in which personal data becomes the new currency of international criminal activity. Even as data flows through our handheld devices, communications towers, satellites, undersea cables, and the whole assemblage of infrastructures that make data flows possible, personal data itself provides the accumulatory capacities of capital of our current global condition – a condition that Manuel Castells had labelled as the ‘informational capital’ in the network age. Personal data, of course, is also subjective – it is marked by the conditions of production of our bodies in digital space. Personal data marks the onset of knowledge about people, spaces, and places, and therefore speaks to the political condition of our current moment. Whether we consider widely mediatized events, such as the role of Cambridge Analytica in

Brexit or the 2016 US elections, we are today increasingly aware not only of the power of data but, more importantly, of the diverse nature of this data, its flows through our bodies and the possibilities of its disruption. Data politics emerges at this junction as the data deluge becomes highly diversified, personalized, compartmentalized, but also fragmented, disconnected, and uneven.

Despite the current proliferation of literature on big data and data analytics, the political nature of data is often left unattended or implicit. One of the key corrections to this gap by Bigo, [Isin and Ruppert \(2019\)](#) notes that data politics emerges through the newly mediated relationships between the state and the citizen that generate ‘new forms of power relationships and politics at interconnected scales’ ([Bigo et al, 2019](#), 4). For Bigo et al, data politics is a poststructuralist reorganization of power where the production and circulation of data produces a transformation of the relationship between technology and people at all scales of data production and circulation. Yet even though scholars increasingly argue, as Bigo et al, that data is inherently political, they are rarely explicit about the diverse and fragmented nature of data, particularly in the Global South (but see [Arora, 2016](#); [Milan and Tréré, 2019](#)). Thus, much of the investigation of data politics focuses on what concerns researchers in the Global North – big data, data infrastructures, cybersecurity, surveillance, and so on. These assume data to be political yet focus less on the disrupted, fragmented, and disconnected nature of data flows and the politics therein.

To understand this, we need to turn towards data politics in the Global South. As [Bowker et al \(2010, 103\)](#) argue, ‘people, routines, forms, and classification systems’ are integral to data infrastructures, which reorganize ethical and political values embedded in the production of data. They note that categorization and standardization lie at the heart of sorting out data, and yet these processes are embedded in historical, social, and geographical flows of power. This can be seen as [Biruk \(2018\)](#), in her account of ‘cooking data’ by survey data collectors in Malawi, highlights the labours of collection, production, circulation, and storing of data as an inherently political process. She points to the tensions between standardization and improvisation of data that highlight the ways that data is both political and politicized in the Global South. Similarly [Agrawal’s](#) research on Indian censuses notes that data can act as a ‘political weapon’ ([Agrawal and Kumar, 2020](#)) of the state to enact a rule of law over territories and populations. In the Global South, then, data may not translate seamlessly into information as it is often bound to its invisibility, scarcity, and even disconnectedness on the flows of data across people, workers, and institutions. As [Datta \(2023\)](#) argues, the uneven flows of data produce ‘informational peripheries’ of the state – spaces where ‘exclusions are marked by both geographic and informational distance from the digitalizing state’. It is in the claims to a seamlessness of data in the digital

age and the practices that expose its fractures across spaces and scales that we understand data politics to emerge.

In this context, this book has three aims. First, it focuses on data politics in the urban realm, which is at the same time a terrain of deployment, resistance, regulation, and subversion of data power. Therefore, the book investigates *urban* data politics: how we see the city and its citizens through a particular set of data, how the state uses data to visualize and govern its citizens and territory, and how this data is then used by civil society and non-state actors for making the state and private actors accountable. Here data politics may also be understood through the three ways that [Degen and Rose \(2022\)](#) propose as the reconfiguration of the urban by digital technologies – storytelling, animation, and seamfulness. They argue that these three terms ‘are ways of describing how different configurations of the new urban aesthetics are organized and put into practice.’ While storytelling is a way of narrating the urban moment through the digital, animation is identified as ‘emergent qualities of digital mediation’. However, it is ‘seamfulness’ – ‘a critical term, [which] attempts to reconfigure the distribution of visibility to make that invisible labor available to perception’ – which unravels urban data politics. While Degen and Rose were referring to the digital age producing a new urban aesthetic, their argument can be stretched to examine the seamfulness of labour across citizens, civil society, and state in making invisible data visible, in interpreting and obfuscating data, and in producing new stories, mediations, and labours to do the work of data.

Second, while the book is framed by a set of chapters on the role of (infra)structural trends in the world of computing (the rise of big data and algorithmic power), contemporary capitalism (the rise of data and platform capitalism), governance (the rise of sensory or complex power), and ethics (the rise of data activism and issues of data justice), it is primarily practice-orientated. Here we see the everyday as entangled with narratives of data power and governmentality, which [Castells \(2010\)](#) had accurately observed as ‘the power of flows takes precedence over the flows of power’. Big data and algorithmic logics operationalize flows of data as a virtue, whereas [Simone and Rao \(2021\)](#) note:

At best, big-data integration positions those traced as elements of a set or as data points within databases whose parameters change continuously, depending on who is viewing the data, with what other databases these individual points are being linked, and for what specific, instrumental purposes those links are being forged.

This is a practice perspective: that is, one that focuses on the instrumental purposes for which data is deployed. This approach is timely and necessary,

in view of the predominance of structural accounts in urban studies, and apt to reveal the entanglements, tensions, and spaces of possibility and hope in urban data politics.

The third aim of the book is to look at crises as moments of acceleration, visibility, and legitimation of new forms of data power. We understand the currency of data to be generated by the mode of continual crises that unfolds in the city. This includes immediate crises such as the recent COVID-19 pandemic and the war in Ukraine, but also longer crises such as the slow erosion of data ethics and autonomy, the erasure of civil rights and the public domain, as well as the co-optation of the digital public sphere for profit. Several chapters deal with these multiple crises not least owing to the fact that they derive from a context and from studies conducted during the pandemic, but also because these long-term crises make visible, accelerate, and often legitimize further data colonization by global corporations and the state. Here we understand data as contingent upon the spatio-temporality of its flows through infrastructures, devices, and our bodies across different scales. Data is historical, real-time as well as speculative. Data produces particular ways of seeing the everyday and its fungibility across spaces and scales. The spatio-temporality of this data produces what [Amoore \(2011, 24\)](#) calls the ‘data derivative’ – ‘a visualized risk flag or score drawn from an amalgam of disaggregated fragments of data, inferred from across the gaps between data and projected onto an array of uncertain futures’. The data derivative potential produces the narrative of crisis – for if data could predict or speculate about a future time, the time of the present could be customized to fit this desirable future. Crisis, then, presents data as a series of time narratives that link past decisions to future potentialities, present actions to future aspirations.

To understand data power in action in contemporary cities, we set the stage in what follows for how it operates today in contemporary capitalism and its variegated forms of governmentality across the Global North and South. By focusing essentially on urban situations outside Europe and North America – in Kenya, China, India, South Africa – this book provides a perspective on data politics beyond data universalism: the idea that the data deluge would unfold in the same way with same consequences everywhere. While chapters in the first part of this book highlight a series of planetary trends in the rise of data power, the more empirically based chapters in the two other parts show that data politics can only be envisaged as ontologically, ethically, and epistemologically variegated ([Milan and Treré, 2019](#)).

This introduction discusses the concepts that are central to this book – urban data politics, data power in action and crises – then moves on to explain the structure of the book and highlight the main arguments of its chapters.

Urban data politics

Data has objectivist connotations. It is a key word of positivist approaches in science, and its etymology – plural of Latin *datum*, what is given – evokes unmediated and obvious facts. Data *politics* could thus sound like an oxymoron. For the common sense, data like artefacts do not have politics. However, as soon as what we call data in research is examined, their mediated and constructed characters come to the fore. They should thus rather be called *capta* (Kitchin, 2014, 2) to remind us of the actions – selections, measurements, samplings, and so on – needed to turn the world into data. Seeing *data* as *capta* opens the possibility of data politics, where data is produced, selected, used, and contested within power struggles.

Data as used in public life, rather than the scientific arena, is historically related to the state and the emergence and development of statistics. The genealogy of modern statistics intertwines three different threads: the English ‘political arithmetics’, based in particular since the 17th century on parish registers; the German *Statistik* with its roots in the 17th century, which aims to develop a comprehensive and descriptive understanding of a human community; and the French centralized administration’s practice of using data for government since the 18th century (Desrosières, 1998). Together, these three practices were the source of the national statistical offices created in Europe in the 19th century.

These practices are developed for the state and by the state, which across these centuries and until recently held a quasi-monopoly over data regarding human populations and the characteristics of their lives. During the past 30 years, with the development of the world wide web in the 1990s and digital platforms in the 2000s, this quasi-monopoly has been seriously eroded: ‘the sovereignty of the state in accumulating and producing data about its population, territory, health, wealth, and security is being challenged by corporations, agencies, authorities, and organizations that are producing myriad data about subjects whose interactions, transactions, and movements traverse borders of states in new and complicated patterns’ (Ruppert et al, 2017, 4).

As a consequence, actors that were marginal until the late 19th century – private corporations, civil society organizations, and citizens – have come to play a more important role in the production, analysis, and circulation of data concerning populations and the world at large. This data production concerns phenomena such as consumer preferences, emotions, patterns of mobility, access to services: data that was and is often not produced by the statistical registers of the state. This ‘non-state data’ is also accumulated for different purposes, from profit-making through the monetization of data sets by digital platforms to data-based rights claims, rather than taxation and biopolitical control.

These new power geometries in data production go hand in glove with the rise of data as a central aspect of cultural, economic, and political power. Data has become a central mediation in social life, from everyday cultures (Burgess et al, 2022) to contemporary regimes of governmentality (Isin and Ruppert, 2020) through capital accumulation (Barns, 2020). It can be argued that datafication – that is, ‘the transformation of social action into online quantified data’ (van Dijck, 2014, 198) – is today as central to social change and order as mechanization and electrification were in the past (Couldry and Hepp, 2016). Therefore, data is much more than anecdotal in contemporary politics, and in particular in urban politics: it is deeply inscribed in its mechanisms.

While we acknowledge that much of the work on data so far has focused on the production and social shaping of data (Kitchin, 2014), the racialization and gendering of algorithms (Noble, 2018; Strengers and Kennedy, 2020), as well as the uneven geographies of digital infrastructures across different scales (Furlong, 2020; Guma, 2020; Datta, 2023), in this book we focus specifically on the political potential of *urban* data – in ways that it is both weaponized and democratized in urban contexts. This is a relatively new and topical theme in the context of current crises that are emerging in cities across the Global South in particular. While there has been much focus on smart cities and digital urbanism (Söderström et al, 2014; Barns, 2018; Datta, 2019; Guma and Monstadt, 2021), this book brings together the two themes of data and urbanism through their power geometries and political confluences. It brings together critical geographies of the urban in conversation with the political geographies of data to argue that urban data power is much more than smart cities or platform capitalism. Urban data power is both a continuation and disruption of historical power asymmetries, from within and beyond the state, in partnership and disruption of global corporations, co-constructed and in parallel with civil society actors.

While the majority of work on digitalization and the city focuses on digital infrastructures or algorithmic power, how they are politically, socially, and economically shaped, this edited collection focuses on the power of data in action. Since the pioneering work of Graham and Marvin (1996; 2001), the digitalization of the city has been approached in urban studies primarily as a networked infrastructure reworking the organization of cities, introducing new forms of inequalities in terms of access, autonomy, and rights. The important work on platform capitalism (Srnicsek, 2016; Zuboff, 2019) adopts a similar (infra)structural viewpoint. Agency within these urban digital infrastructures, both of the powerful and the less powerful, has been given less attention. In contrast, agency with and through digital devices has been central in media studies (see, for instance, Milan, 2013; Couldry and Hepp, 2016; Stephansen and Treré, 2019; Burgess et al, 2022) but rarely

focused on cities. The specificity of this edited book is to bring an agency perspective to our understanding of the digitalization of cities.

Data power in action

As Kennedy and van Dijck argued a few years ago: ‘Thinking about agency is fundamental to thinking about the distribution of data power. And yet, in the context of datafication, questions about agency have been overshadowed by a focus on oppressive technocommercial strategies like data mining’ (Kennedy et al, 2015, 2). Since then, there has been a response to their call and also to calls by others (for instance, Couldry and Powell, 2014) in the field of (critical) data studies to balance the famous structure–agency scale. Agency is, of course, a broad and multifaceted category: it covers a broad range of practices, from state officials or corporate CEOs taking decisions on data collection and analysis, to ‘click workers’ employed by AI firms (Casilli, 2017), Uber drivers (Attoh et al, 2019; Pollio, 2019) or data activists (Milan and van der Velden, 2016). Only part of this array of actors and practices has been covered and unevenly across disciplines. Most of this work has been on data activism (for instance, Beraldo and Milan, 2019; Milan and Tréré, 2019); less has been done on ordinary everyday data practices (but see Lupton, 2018; Burgess et al, 2022) and, as previously mentioned, mostly in the field of media and cultural studies. In contrast, issues of agency have been a minor melody in urban data studies. Front stage has been occupied by important work on social sorting through technology (Graham, 2005), the corporatization of urban governance (Hollands, 2008; Söderström et al, 2014), the critique of techno–utopianism (Datta, 2015) or platform urbanism (Barns, 2020). However, the number of exceptions to the rule of work centered on data infrastructures has been growing in recent years with studies of citizen sensing (Gabrys, 2014; Houston et al, 2019), data-based activism and its limits (Cinnamon, 2020; Chapter 10, this volume) or platform workers (Attoh et al., 2019; Pollio, 2019).

We agree that more needs to be done and that studying data power and data politics requires to move beyond important and necessary critical work on the power of the extractive and surveillant logics of digital platforms (Zuboff, 2019), because ‘condemning surveillance is not the whole story of our datafied times’ (Kennedy et al, 2015, 1). It is necessary to not simply rehearse the ‘Big Critique’ and its ‘tendency to mirror the rhetoric of Big Tech’, reinforcing the claims it makes about itself (Burgess et al, 2022, 13–14) and thus producing an incomplete picture of the power of data in contemporary societies. We need to better understand the daily uses of data in projects such as data clubs (Powell, Chapter 4, this volume), listening to the voice and narratives (Couldry and Powell, 2014) of users such as delivery workers (Guma, Chapter 9, this volume), civil society organization leaders

(Blake et al, [Chapter 11](#), this volume) or international consultants and leaders of national data strategies (Datta and Söderström, [Chapter 7](#), this volume).

Yet, focus on agency and its autonomy does not have to be separated from critical neo-Marxist ([Thatcher et al, 2016](#)) or neo-Foucauldian ([Isin and Ruppert, 2020](#)) perspectives. On the contrary, we should strive to study agency in the context of and in tension with renewed strategies of accumulation and regimes of power, much as, a long time ago, de [Certeau \(1984\)](#) described, in the introductory pages to his *grande oeuvre*, his street-level approach to everyday life as a complement to a Foucauldian view from above the street. Remembering those classic pages, we have used de Certeau's famous dialectic couple 'strategy/tactic' to organize the chapters of this book, as we develop below.

We concretely address the question of agency in the book by focusing, on the one hand, on the generative role of data in the urban world and, on the other hand, on its everyday use, rather than its logic of production. First, on a general level, we take from [Bigo et al \(2019\)](#) the idea that investigating data politics is investigating data as generative in the political order of the city. It is generative as ideology, in the form of *dataism* – the 'belief in the objective quantification and potential tracking of all kinds of human behavior and sociality through on-line media technologies' (van [Dijck, 2014, 198](#)) – or 'data positivism', for which 'whatever aspects of the social are not digitally captured are relegated to non-knowledge' ([Power, 2022, 11](#)). This generative ideology is, for instance, at work in the imaginaries of the Smart City Mission's officials in India (Datta and Söderström, [Chapter 7](#), this volume). It infuses a 'data epistemology', a way of seeing and cognitively organizing the urban world as made of 'clusters and patterns, located within a larger data structure' ([Törnberg, Chapter 3](#), this volume). This way of seeing is in turn generative of social ordering practices ([Couldry and Hepp, 2016](#)), where people are assigned to clusters through which acts of governing are performed ([Isin and Ruppert, 2020](#)). The sorting of good and bad citizens in the Chinese Social Credit System, which Xu et al ([Chapter 8](#), this volume) describe as variegated rather than totally unified, is emblematic of these practices of social ordering that governments tend to hand over to private data analytics companies, like Palantir (Powell, [Chapter 4](#), this volume).

These examples are related to practices of datafication that citizens are subject to or resist. Agency resides also, beyond resistance to datafication, in the production and tactical use of data: *data-making*, 'a strategic mode of agency that can arise if the subjects of datafication are given tools to both understand and work with the data that they produce' ([Pybus et al, 2015, 3](#)). Several chapters in this book investigate the practices, limits, and possibilities of using data as a tactic tool for progressive urban politics both in the Global North (Powell, [Chapter 4](#); Barns, [Chapter 6](#)) and in the Global South (Cinnamon, [Chapter 10](#); Blake et al, [Chapter 11](#)). If this volume looks

at data power in action both from the perspective of the powerful and of everyday practice, it also strives to be more than critical, reflecting in each chapter the possibilities of progressive data politics.

Crises

Finally, this book focuses on how data politics and data power play out in times of crisis: how data politics are shaped by crises and their narratives and how data shape crises. This is in part due to the general sense that our present time is characterized by a series of deep crises affecting various forms of futures: the planetary with global warming; the biopolitical in the broad sense (from the mass extinction of species to the multiplication of pandemics); the geopolitical with, notably, the war in Ukraine. These are big crises that shape urban data politics in different ways, but there are also slow-burning everyday crises, for instance in the provision of housing and basic urban services. Chapters in this book engage with this broad array of crises as critical junctures, moments of inflection in data power and politics. They also provincialize the common-sense idea in the Global North that crises are sudden and unexpected events, by investigating urban situations where crises are the normal condition of everyday life for a majority of the population.

Envisaging crisis as a characteristic of an epoch and an interpretive frame is, of course, itself a *topos*, a mode of thinking which has deep roots in the history of modernity (Koselleck and Richter, 2006). Thinking of crisis as a central driving force of social change is the hallmark of a structural or systemic view of society where, for instance, in a Marxist tradition the contradictions of capitalism inevitably lead to crises, themselves working as forces of social transformation. In a period when the predictions about a coming major crisis of capitalism by observers of its *longue durée* (Wallerstein et al, 2013) seem to materialize, we are inclined to foreground this *topos* once again.

However, there is a more specific reason why crisis has a particular resonance when analysing data politics. Crisis is not only a *topos* of social theory, but it surfaces constantly as an emic category in the reflections and actions of actors on the ground. It acts as a major form of evaluation and justification (Boltanski and Thévenot, 2006), for instance when discussing why war rooms are required to harness data in the Indian COVID-19 management strategy (Datta and Söderström, Chapter 7, this volume). This is because crisis is a central element in the ‘smartness mandate’; that is, smartness not as a recent marketing strategy of IBM or Cisco, but as an epistemology with its roots in technologies and scientific theories of the 20th century Cold War period (Halpern and Mitchell, 2023). In this form of thinking, which structures smart city and other techno-solutionist narratives today, resolving crises through computational strategies of resilience is the

central justification of the deployment of sensor-, data- and algorithm-intensive systems of intervention. Shocks and crises are opportunities for their deployment. Rather than inviting an inquiry into (and action on) their causes, crises in this epistemology are framed as inevitable problems that should be accepted and mitigated. This crisis/resilience model derives according to Halpern and Mitchell (2023, chapter 4) from the merging of ecological thinking about resilience in the 1970s with business practices becoming progressively a ‘new normal’. In other words, we focus on crises, because it is a cognitive register closely enmeshed with data politics in its mainstream form, ubiquitous in the words and actions of the economic and political elite. How this data-powered resilience strategy encounters the everyday grapplings with the banality of urban livability crises constitutes one of the questions of this book (Simone, Chapter 5; Guma, Chapter 9; Cinnamon, Chapter 10; Blake et al, Chapter 11, in particular). But we provide no clear-cut answer to this question. We rather invite readers to avoid dichotomies, such as the ones that derive from a superficial reading of Lefèbvre (1991) (where ‘representations of space’ are pitted against ‘spaces of representation’) or de Certeau (1984) (tactics against strategies). We rather suggest that it is productive to pay attention to the homologies between everyday and technologically sophisticated practices of computation (Simone, Chapter 5, this volume) and imagine hybrid forms between phenomenology and data sciences, such as explored in data feminism (D’Ignazio and Klein, 2020).

Structure and contents of the book

While the book focuses primarily on data practices, chapters in this book envisage them in constant relation with material infrastructures, governance structures, and mechanisms of data capitalism. All contributions try also to avoid a simple domination/resistance framework. Chapters emphasize relations between logics and actors: mediations (Couldry and Hepp, 2016; Degen and Rose, 2022), glitches (Leszczynski, 2019; Leszczynski and Elwood, 2022), and resources of hope (Burgess, 2022) rather than the irresistible unfolding of a single logic of data power.

To set this moving stage, Part I of the book, entitled ‘Frames’, looks at broad (infra)structural trends or questions common to the more specific issues discussed in the two following parts on actors’ strategies and tactics. To observe data power in action, we then distinguish (classically) between strategies and tactics using the well-known, but nonetheless useful, opposition elaborated by de Certeau (1984) where strategies are related to institutions and a durable system of rules, while tactics are practices developed in specific temporal and spatial situations, searching for leeway and trying to circumvent these fixed rules. Strategies and tactics are thus intertwined, and it is a choice of perspective to focus primarily on the first or the second.

Thus, in **Part II** of the book, contributions focusing on *strategies* look at the role of cities that try to develop alternatives to the power of platforms, and in contrast at authoritarian states, such as China and India, shaping or reshaping their ‘technopolitics’ in times of crisis. In **Part III**, contributions focus on the *tactics* of civil society organizations, delivery platform workers or cities that try to use the interstices of state-led smart city policies in South Africa and Kenya.

In the opening **Chapter 2** of **Part I**, Rob Kitchin draws on his long-standing engagement with data politics to depict a broad picture of the structural processes at play. Kitchin argues that, while there is a long history to data power, big data, on which his chapter focuses, has significantly increased the power of data ‘to maintain control or extract profit, or to socially sort people along the lines of race, ethnicity, gender, class, sexuality, disability and other social markers’. Data is today central to a new phase of capital accumulation, data capitalism, where smart cities foster a market-orientated approach to urban governance and digital platforms colonize everyday urban life to extract and monetize data. These transformations – through which already existing inequalities and exclusions are amplified, citizens are recast as consumers, and surveillance becomes ubiquitous – profoundly reshape, Kitchin argues, governmentality and pose important questions in terms of social justice and democracy. Data ethics, data justice, and data activism initiatives, discussed in their different forms in the last part of his chapter, are responses and forms of resistance to data power. In this context, we cannot produce a single narrative about unfolding data politics but should view it as a relational process, allowing some hope in increased democratic control.

In **Chapter 3**, Petter Törnberg examines platformization as the rise of governance through data power. He approaches platformization, born through the 2008 financial crisis, as a form of accumulation based on the privatization of employment regulation and as a ‘way of seeing’: an epistemology. The power of platforms rests, Törnberg argues, on the constitution of proprietary markets, which have complemented previous national or transnational markets, controlled by private transnational companies through digital technology. While, like neoliberalization, platformization is variegated, it shares a series of characteristics: technosolutionism, the attempt to impose its own market rules, and a shift of responsibilities onto their users. Platform power also consists in the emergence and imposition of an epistemology for which the world consists of ‘clusters and patterns, located within a larger data structure’. This epistemology drives a form of governance characterized by technoliberalism (Malaby, 2009) and its ‘trust in the invisible hand of the platform algorithm’. In front of this unhinged data power, Törnberg concludes, data must become the object of democratic regulation and control.

In **Chapter 4**, Alison Powell investigates ethics as a practice in data-driven contexts. Powell argues that scale and interscalar connections are crucial

in this respect as ‘many aspects of the current ongoing crisis [notably the climate crisis] are experienced at small or lived experiential scales through bodily perception, while only being able to be experienced at a global or distributed scale through data and the narratives created based on it’. Powell discusses data ethics and justice in the context of the COVID-19 crisis in the UK where large-scale data analytics have been, as elsewhere, delegated to private companies such as Palantir, whose practices had problematic unethical biases. Powell’s response to these issues is not a celebration of small scale. She rather stimulates the imagination of ‘other possible futures’ by discussing practices of data commoning and data-sociality (as there is bio-sociality around illness and diagnosis) in projects in Bristol and London.

In [Chapter 5](#), AbdouMaliq Simone provincializes the narratives of data capitalism by focusing on the urban majority in cities of the Global South caught between a data apparatus of surveillance and extraction, and a different ontology of data as information and knowledge that can be made operable to navigate the uncertainties and complexities of everyday life. Drawing on [Hui \(2016\)](#), he defines data as ‘not a discrete object as much as a mode of existence to be enfolded into a decision, legitimation, or prediction’. He asks how data are produced and used in such uncertain situations, contrasting with the supposedly increasingly predictable and transparent urban world of the digital age. However, rather than opposing the logics of data capitalism and the everyday data practices in the Global South, he points to homologies in their operations: how, for instance, the Kebayoran Lama market in Jakarta works as a sophisticated interoperable data infrastructure. Therefore, Simone argues, if we want to fully understand urban data power, we need to conceptualize data ‘beyond conventional modes of calculation, measurement, and value’.

[Part II](#) explores strategies in the landscape of urban data politics. This does not mean that chapters focus simply on powerful actors but on practices and initiatives that are characterized by forms of planning, institutionalization, and rules.

In [Chapter 6](#), Sarah Barns discusses how municipal reform practices are responding to issues of data access and availability in reaction to the rise of platform services across cities. The imperative to ‘take back our data’ is, she argues, no longer confined to a radical fringe, but is reflected in collaborative agendas being pursued by governments, civil society, and industry at municipal, regional, national, and supranational scales. In this emergent landscape, cities can play a key role by developing novel approaches to data governance that defend the rights of citizens from wider platform practices of data accumulation and surveillance. To explore these city-scale alternate modes of data politics, Barns contrasts Barcelona’s digital reform programme, Toronto’s ‘civic data trust’ concept, and the initiatives of the Cities Coalition for Digital Rights to support municipal data governance.

She argues that these experiments are a testimony of the enduring vitality of cities as sites of struggle and agency in the digital age.

In [Chapter 7](#), Ayona Datta and Ola Söderström focus on ‘COVID War Rooms’ created through a repurposing of the control and command centres of Indian smart cities in the context of the coronavirus pandemic by the Indian Smart City Mission. They study this process in the making in webinars that took place in the early days of the pandemic. Datta and Söderström analyse these webinars and war rooms as sites of data- and technopolitics in the making, where the pandemic works as test bed, accelerator, and legitimation for the full use of the smart city’s surveillant affordances. They argue that these are sites where ‘smartness as epistemology’ can be observed at work. However, they conclude, Indian urban data politics, both highly centralized in its organization and much more fragmented across scales and actors when observed in action, blurs the idea of a frictionless roll-out of this way of seeing and organizing the digitalized city.

In [Chapter 8](#), Ying Xu, Federico Caprotti, and Shih-Shen Chien deal with China’s Social Credit System (SCS), initiated in 2014 and determined by fears of impending and potential crises. The SCS is, in their view, an example of the evolution of smart into platform urbanism with intermediation as its main function. The core of this intermediation is the top-down shaping of citizenship. Based on a governance mode focused on ‘smartmentality’ ([Vanolo, 2014](#)), the SCS is instituting a new or at least revised moral order in urban life, by introducing specific technical parameters and behavioural codes in order to distinguish between ‘good’ and ‘bad’ citizens. The chapter analyses the SCS discourse proposed by the national government, as well as different types of municipal SCSes adopted across two Chinese cities (Hangzhou and Tianjin). The chapter explores in depth how the SCS is operationalized, as well as the role of market actors and urban residents. Xu et al show that rather than a centralized, nationally uniform and fully connected system, as it is often portrayed in the media, the SCS is, as yet, a municipally diverse set of emerging practices orientated by differing conceptions of ‘the good citizen’.

[Part III](#) of the book looks at more interstitial practices, ways of doing with or improvising within frameworks, processes, and rules set by economic or political institutions: de Certeau’s ‘tactics’.

In [Chapter 9](#), Prince K. Guma focuses on digital platforms in Nairobi to examine articulations of platform work, everyday life, and survival in times of crisis. He offers a postcolonial critique on precarious work through ethnographic stories of how at the height of COVID-related socio-spatial inequalities, residents appropriate different digital systems and delivery platforms to navigate urban problems and restrictions. Guma also demonstrates how, while filling certain voids during COVID-related

restrictions, urban residents highlight growing expectations on urban space and micropolitics. Building on established debates on urban and infrastructure development and appropriation, the author makes an empirically grounded claim beyond utopian descriptions of circulating techno-centred visions and deterministic views of urban innovation. In concluding, he offers reflections about what the entanglement of bodies, infrastructures, and platforms through everyday life and survival mean for planning and theorizing the 'post-COVID' city and city of future.

In [Chapter 10](#), Jonathan Cinnamon examines how scale has been mobilized as an analytical framework in urban data research, and what happens when the politics of urban data meets the politics of scale. A materialist framing provides a way of probing seemingly dissimilar concepts – quantitative data and geographic scale – as actors each with the potential capacity to enact political goals. Drawing on ongoing research in Cape Town on grassroots activism around informal settlements, Cinnamon concentrates on a particular moment in South African cities when 'data' emerged as a powerful discursive and material object within civil society organizations and social movements working to challenge injustice. While South African social movements have traditionally deployed scalar tactics, including scale jumping and multiscale conflict, to open up new political terrains, he shows how new data-driven tactics of auditing and counting took priority in the fight against spatial injustice during the 'data turn' of the 2010s. In revealing the limitations of data and a subsequent remobilization of scalar tactics in this context, this analysis links data at the grassroots level with the post-political urban condition, suggesting a need to consider what forms of politics data enables and what forms it forecloses.

In [Chapter 11](#), Evan Blake, Nancy Odendaal, and Ola Söderström analyse the tactics of civil society organizations (CSOs) in three South African cities: Cape Town; Ekurhuleni, in the Gauteng City Region; and Buffalo City. Drawing on work on data politics, data activism, and postcolonial science and technology studies, they use the notion of 'conjugated knowledge positions' to open the reflection to data tactics as part of broader knowledge politics and envisage them as negotiated within a multi-actor game. Based on their case studies they show how CSO tactics are positioned along a spectrum between data power and knowledge power. Extending work on CSO urban data politics they conclude that South African CSOs have not rolled out and rolled back data-focused tactics as a consequence of moments of faith and disillusionment in the power of data, but rather mobilize data and other forms of knowledge according to local political contexts and interactional situations.

In [Chapter 12](#), 'Epilogue: Data, Crisis, and Learning', Orit Halpern, engaging the terms Anthropocene, technosphere, and smartness, argues

that thinking big data and crisis together opens an avenue to reimagining new ideas about human – and more than human (including technology) – agency and subjectivity. Extending from this observation, this concluding essay then turns to reflexively think with the authors in the book, in order to ask how the careful examinations of big data might challenge contemporary assumptions of technical determinism and reconfigure our understanding of the future or urban life(s). Arguably, the careful study of the materialities, practices, and discourses of big data disrupts technically determinist imaginaries that propagate inequity and violence in the name of avoiding a future always imagined as catastrophic.

In line with the general perspective of the book, Halpern’s epilogue thus points to ways to think and act in the age of data power with and beyond narratives of surveillance capitalism and creative data agencies to navigate urban digital futures.

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