Platforms as States: The Rise of Governance through Data Power

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Introduction

Recent years have seen the explosive growth of platforms such as Amazon, Alphabet, Airbnb, Facebook, and Uber – forming an ecosystem which is now central to contemporary capitalism while amassing unprecedented levels of money and influence (Langley and Leyshon, 2017; van Dijck et al, 2018). As any fundamental shift, platformization is born and shaped from crisis. The Great Depression birthed Fordist–Keynesianism, the 1970s crisis brought post-Fordism and neoliberalism (Harvey, 2007), and the first steps of the incipient rise of a digital form of accumulation was birthed in the 2008 financial crisis. Its dominance was cemented and made visible through the COVID-19 pandemic, and it appears now to be maturing through the subsequent financial and inflation crises. The large core corporations left following this process are emerging as a new form of ‘company-states’: firms with the capacity to control not only trade but also law, territory, and liberty – in other words, to regulate life. This role has not escaped the firms themselves, many of which view their governance as so central to their business model that they refer to their users as ‘citizens’. Platformization thus signifies a transformation of urban governance and politics, as ‘data is generative of new forms of power relations and politics’ (Bigo et al, 2019, 4).

In this chapter, we will examine the impact of data’s transformation of governance. We here view the growing powers of data to shape human life as lying at the core of platformization. On the basis of this perspective, the chapter will examine platformization in two parts.

First, we will examine platformization as a form of capitalist accumulation based on employing data power to privatize regulation. Platformization first
emerged as proprietary markets owned and created by platform corporations – such as Airbnb or Uber (Langley and Leyshon, 2017). The proprietary market business model is based on using the control over markets to extract monopoly rents. This has been described as a continuation of neoliberalism’s constant annexation of new fields by the market, reaching its logical endpoint in the market’s annexation of the market itself (Barns, 2020). However, the logic of platformization has since generalized to the use of data power to manipulate markets in order to extract profits through the concentration of political-economic power. Platformization can thus be understood as private actors employing digital technopolitical strategies to target vulnerabilities in local institutions, in the pursuit of control over market regulation. Platforms seek to claim regulatory control through data surveillance, while seceding from state control, thereby challenging the distinction between the economic power of corporations and the political sovereignty of states. The result is a gradual and variegated shift towards the private capture of governance, as capital supplants democratic institutions with private technological solutions.

Second, we will examine the nature of regulation as it is pursued through data power. Platform regulation implies a fundamental shift in the way of seeing those governed, bringing a shift in the regime of power. Scott (1998) famously characterized how the modernist state made the social world legible and amenable to state power through a top–down population-based epistemology, exerting power through hierarchical command-and-control that spread from the Fordist factory to shaping society, cities, and even a period of modernity. The platform mode of regulation implies a new way of seeing, as platforms see those governed through the novel epistemology of Big Data – cluster-based, bottom-up, and relational – and exerting control through the design of programmable social infrastructures. This signifies a fundamental shift in the regime of power, lying at the heart of the societal transformations emerging from digitalization and platformization.

**Accumulation through data power**

Digitalization first emerged as part of the macro-trends of capitalist reorganization that followed the Fordist crisis of the 1970s: financialization, globalization, and neoliberalization. Digital technology provides the infrastructure for the global financial system, as financial products are fundamentally predictive mathematical and computational entities. The growing sophistication of digital data and algorithms enable the financialization and annexation into capitalism of an expanding field of social behaviour (Sadowski, 2019) – ‘liquifying’ areas previously inaccessible to capital (Lohr, 2015; van Dijck, 2014).

But while digitalization was part and parcel of these macro-trends, it also brought with it challenges to existing capitalist institutions: as digital goods
are not scarce but can be copied with near-zero marginal costs, they pose a much debated dilemma for accumulation. By bringing an end to the scarcity on which profits depend, some scholars even speculated that digital technology would bring the arrival of a postcapitalist utopia (Mason, 2016).

Capitalism’s solution to the dilemma posed by digital technology was the platform: a natively digital organizational form, which allows the creation of artificial scarcity by using digital technology’s capacity to centralize and control access to key resources. Platforms make use of the affordances of digital technology to curate programmable social infrastructures that enable buyers and sellers to meet; that is, to constitute a form of proprietary market (Langley and Leyshon, 2017). The platform business model can thus broadly be understood as leveraging digital technology to capture the market itself, and financialize its ownership and regulation.

The rise of proprietary markets can be seen as a fundamental transition in the structure of capitalist regulation: if Fordism was defined by national markets with national state regulation, and post-Fordism by transnational markets with national regulation, then digital capitalism is defined by proprietary markets – owned and regulated by transnational private companies through digital technology. Seen through this lens, the platform model constitutes the convergence of several long-running post-Fordist trends: neoliberalism’s tendency to privatization and financialization of everything; the flexible formation of new financial conventions; use of digital code as means of shaping social institutions, and data as means of financializing them.

While platformization began with the proprietary markets of ‘sharing economy’ platforms such as Airbnb and Uber, it has been gradually evolving into a broader capitalist logic. At its core, the platform model is founded on leveraging data power as mechanisms for market dominance: platformization implies seeking to claim control over strategic chokepoints for accumulation, enabling firms to manipulate the market and extract rents from producers by controlling access. As Peck and Phillips (2020) argue, platforms can thus be understood as situated in the Braudelian zone of the ‘antimarket’, constituting a ‘new machine with an old purpose: that of controlling markets from above and, in the process, generating significant concentrations of political-economic power’ (p 75). While Fordism pursued profits through wealth creation and rationalization of production, and post-Fordism through financial markets and wealth relocation, digital capitalism thus generates profit through rentiership – based on the capacity to control access to key resources (Langley and Leyshon, 2017). The platform strategy thus hinges on using data power to make markets uncontestable by raising steep barriers to entry (Baumol, 1986), thus allowing the extraction of monopoly rents.

The monopolies of digital capitalism are thus fundamentally different from the steel and rail monopolies of the Fordist era: firms like Amazon are not even close to having a monopoly on retail – but are yet able to
extract monopoly rents by drawing on data power (Peck and Phillips, 2020; Zuboff, 2019). Platforms use three forms of data power to achieve such market dominance. First, platforms use the strategic employment of infrastructuralization to produce lock-ins: platforms seek to provide basic functions that become entrenched, creating dependence on a privatized infrastructure (Larkin, 2013). As Rahman and Thelen (2019, 180) observe, ‘the very idea of the “platform” reflects an aspiration to be the foundational infrastructure of a sector.’ Second, the mediating position granted by ownership of infrastructures gives access to data flows, allowing platform companies to shape social pattern through global architectures of behavioural monitoring, analysis, prediction, and modification (Zuboff, 2019). The capacity to draw advantages from massive amounts of data, scalable at near-zero cost, results in feedback loops generating market concentration – what has been referred to as ‘digital monopolies’ or ‘dataopolies’. Third, through the strategic employment of demand-side economies of scale – so-called ‘network effects’ (Rochet and Tirole, 2003): since the value of using a platform is a function of the number of market participants, incumbents are strongly favored (McAfee and Brynjolfsson, 2017). The result is a ‘feedback loop that produces monopolies’ (Parker et al, 2016, 6), leading to most mature platform markets being dominated by one or two giants (Peck and Phillips, 2020).

As platforms become truly valuable only if they can claim control over a key resource, competition plays out as winner-take-all turf wars that systematically favour capital and scale, in which dominant platforms leverage power in one sector to override competition in others (Cusumano et al, 2020). Unlike the monopolies of the Fordist era, the new form of monopoly power is not based on vertically integrated corporations and direct ownership, but on digital capacities for market control and manipulation (Peck and Phillips, 2020; Zuboff, 2019). The result is that corporations grow and expand according to a data-centric logic – continually spreading their roots to claim control of the infrastructure on which their rivals depend, and extend their data extraction into new areas – capturing and consolidating markets through what Srnicek (2017, 256) describes as a ‘rhizomatic form of integration.’ As a result of such horizontal expansion, platform firms spread and compete across a range of markets: Amazon (originally a bookstore), Google (originally a search engine), and Meta (originally a social networking website) are now engaged in turf wars to claim control over diverse market segments.

Platformization of regulation

As platforms are seeking to capture control over markets, the state is effectively part of their competition. As Kitchin (this book) notes, platform firms therefore ‘try to capture the role of the state, moving beyond
supplying services to, or acting on behalf of, the state to become state-like and sovereign, owning and governing settlements’. The well-documented regulatory and political consequences of platforms are thus part of platforms’ competition with states, as platforms seek to exploit institutional weaknesses in order to break out of the control of the state.

Smart cities are among the clearest examples of such platformization of regulation in action. As Kitchin (this book) notes, they represent the strategy of capturing public services through technopolitical solutions, to form a market-orientated approach to urban governance – while generating revenue through service contracts with state bodies, and the extraction of citizen data. As the emerging literature on ‘platform urbanism’ highlights, the urban is central to the platform capitalist form of accumulation, with irreducible, co-generative dynamics between platforms and the city (Barns, 2020; van Doorn, 2019). Platforms are coming to ‘alter the conditions through which society, space, and time, and thus spatiality, are produced’ (Kitchin and Dodge, 2011, 13), using data as the new means to remake the city in capital’s image (Couldry and Mejias, 2019).

The recent leak of internal files from Uber provides an example of the strategy that platforms pursue to achieve their political goals. As the files reveal, Uber seeks to exploit regulatory loopholes and mobilize political and legal power to avoid having its business regulated by states – strategically breaking laws, bypassing regulations, exploiting violence against drivers, and lobbying governments across the world (Davies et al, 2022).

The centrality of politics to platforms means that their impact and nature are highly contingent on the local institutional landscape, as they seek to target and exploit specific local regulatory and institutional conditions. For example, Thelen (2018) finds that the disruptive effects of Uber differ significantly across Germany, Sweden, and the United States, as the platform adapts to local forms of regulation and governance, seeking to identify and target loopholes and regulatory grey zones. Such differences highlight that platformization – as neoliberalization before it – is simultaneously novel, while contingent and path-dependent, and generating variegated outcomes.

While the impact of platformization varies markedly across territory, platforms tend to follow some common political strategies, enabled by the power of digital technology. We will here briefly outline key characteristics of the platform strategy vis-à-vis states, and how these strategies shape variegated pathways of regulatory transformation.

to constitute, embody, or enact political goals’ (Hecht, 2000, 15). While platforms are better understood as regulatory than technology entrepreneurs (Pollman and Barry, 2016), technological innovation is thus central to their regulatory pursuits: while technological innovation always has had political consequences, those consequences have now increasingly become the chief purpose. Big Tech should thus in this sense be understood as representing the rise of a new form of technopolitical firms.

Platforms tend to seek rapid expansion, fueled by massive venture capital backing to undercut competition and quickly build a userbase (Langley and Leyshon, 2017). While the literature has understood this primarily as a means of outcompeting other platforms, it also serves as a strategy vis-à-vis the state, as quick expansion allows the platform to build political and legal power, hire lawyers and lobbyists, and mobilize its user base as a political force (Collier et al, 2018; van Doorn, 2019; Culpepper and Thelen, 2020). Having established a business in a regulatory grey area, the rapid expansion allows companies to present slow-moving lawmakers with a fait accompli, while mobilizing overwhelming political and legal power to fight attempts at after-the-fact regulation (Srnicek, 2016).

Platforms seek to spread their rhizomatic roots to claim control of the infrastructure on which states, regulatory agencies, and political elites depend. As platform corporations have thus emerged as the ‘infrastructural core’ (van Dijck et al, 2018, 12) of the global digital economy, they have also become embroiled in geopolitical conflict – emerging as ‘key pawns in a mounting hegemonic strife’ (Bassens and Hendrikse, 2022, 1), in particular between China and the US. As a result, states seek to support platformization as means of geopolitical influence (Peck and Phillips, 2020).

Platforms seek to avoid taxation and regulation by claiming to constitute a thin layer of intermediation which merely helps connect market actors. While platforms exert significant control through infrastructural design and data extraction, they often seek to maintain a narrative of neutrality in order to avoid regulatory responsibilities. For instance, labour platforms like Uber or MTurk draw on their algorithmic form of worker control (Cheney-Lippold, 2011) to claim that their workers are not employees, but ‘independent contractors’ who are therefore not fully subject to labour laws and welfare state protections (Ravenelle, 2019). This means that the platforms can devolve onto workers costs and risks such as varying demand, lost earnings, responsibility for bodily injury, and damage to tools and assets. Short-term rental platforms such as Airbnb likewise use similar narratives to claim that they are merely connecting guests to private home rental, thus bypassing the regulation of hotel accommodation and shifting responsibility for taxation and legal obligations to their ‘hosts’ (Törnberg, 2021). This is part of a broader strategy, in which platforms – from social media to gig work – use technological designs to target regulatory grey areas, algorithmic
governmentality to shape the market to their interests, while drawing on a discourse of neutrality in order to shift legal responsibilities onto their users (van Dijck and Poell, 2013).

At the same time as platforms pass on regulation onto their users, they function as a legal and political front for these users – concealing their identities and mobilizing legal and political power to shield them from regulatory burden. Airbnb, for instance, has been shown to actively obfuscate host information to conceal their identity from governments and tax agencies, to mobilize significant lobbying efforts to fight stringent regulation, suing governments and tax agencies, and even to organize their users in ‘social movements’ to push their political interests (van Doorn, 2019). Platforms thus attempt to effectively unnest their proprietary markets from the larger public market of which they are part, making participants subject only to the taxation and governance imposed by the platforms themselves. Platforms, in other words, seek to operate on the same level as sovereign states – as managers and regulators of markets.

In summary, platformization can thus be understood as the rise of a form of accumulation based on rentiership, using data power to claim control over regulation. As Kitchin (this book) notes, ‘the state is transformed into a privately owned state-as-a-platform in which a company constructs and controls all aspects of a locale including territory, buildings, infrastructure, service delivery, and governance’. Platforms are technopolitical actors, employing technology to constitute, embody, or enact political goals, seeking to employ digital power to capture and monopolize regulation. Through code and data, governance is depoliticized and put under private control, organized as proprietary algorithms which employ massive behaviour data to engineer social systems through infrastructural design – turning social issues into technical problems to be solved by private means.

**Characterizing governance through data power: seeing like a platform**

Scott (1998) famously characterized how the modernist state made the social world legible and amenable to state power through a top-down population-based epistemology, exerting power through hierarchical command-and-control. As Scott argued, any understanding of the world necessarily requires abstraction: a narrowing of vision to reduce the unwieldy complexity of reality into something manageable. Scott studied the way that the modern state made the social world legible, readable, and thus amenable to state power. The state needs maps to navigate and act – and to be useful, maps need to reduce and leave out.

In examining the emergence of the modern state, Scott found that the state’s particular way of drawing its maps was at the core of a range of
societal phenomena. When wielded by the state, a map becomes more than just a map: the world is reshaped and remade to fit the description that the map provides. A state registry which designates taxable property-holders does not merely *describe* a system of land tenure but *creates* such a system by giving its categories the force of law. Scott traced a long range of phenomena expressive of the modern state’s particular way of rendering legible – from the standardization of weights and measures, the design of forests, the creation of permanent last names, cadastral surveys and population registers, to the grid design of cities. From these emerge a common pattern, in which the state fought against diversity, mobility, local traditions, and individuality, seeking to impose a world that matched the homogenizing rows and columns characterizing its ways of representing the world. These changes were attempts at making legible, taking complex and diverse local practices and slotting them into a standard grid whereby they could be centrally recorded and monitored.

As Bauman (2000) argued, the high modernist state’s way of seeing emerged from the epistemic structure of the Fordist factory. Industrial capitalism was marked by the specialized division of labour, with specific characteristics: mass production based on standardization, rationalization, and the interchangeability of parts; mass production based on large groups of workers concentrated in factory settings, operating with functional specialization in administrative hierarchies and under strict managerial authority. The image of the Fordist factory shaped a modernity which was similarly obsessed with bulk and size, and impenetrable boundaries, with a preference for matching forms of planning and social organization – large factories and farms, huge dams, and grid cities.

Centrally, the modernist epistemology characterized a certain form of data, which matches the structure of the factory. It was the data of exact accounting, measurement, and statistics, printed sheets of IBM machines that governed every movement of the factory floor. The data of the ’average man’, monitored through rows and columns of data, steered through top-down command-and-control. Drawing on such data, the image of the Fordist factory was transposed to society at large, institutionalized in schools, hospitals, family life, and personality – as figures like Robert McNamara brought to statecraft and warfare what they had learned from managing – through IBM machines, statistics, detailed control, and strict hierarchies – the factory.

The high modernist abstraction permeated the lived experience of its era, built around the image of the heavy machinery of the factory, with its precise structures and control. Society became factory-like, shaped by institutions that mirrored industrial organization: schools, hospitals, and even family life. Its science was that of average man and *homo economicus*, statistics, and systems theory, based on variable-variance analysis of representative samples of survey data. Its quantitative social sciences have dominated up until today, obsessed
with measuring, classifying, and categorizing, finding regularities through means and variances, through assumptions of homogeneity and linearity.

The rising use of data power for governance which characterizes platformization is driving a shift in this epistemic foundation of modernity. As capital is using code to rewrite laws and employing the medium of digital technology to supplant the role of democratic institutions, platformization is bringing the rise of a new form of regulation. The platform mode of regulation comes with a particular way of seeing those governed, as the digital is coming to replace the Fordist factory as the chief ‘epistemological building site’ (Bauman 2000, 82) for contemporary modernity. As the high modernist way of seeing before it, data power is emerging as an incipient paradigm, reflected everywhere in society. As the logic of heavy machinery permeated first modernity, so does the logic of computer code and data coming to permeate the society of today. The rise of data power implies a shift in two deeply intertwined dimensions of power: the way of rendering legible, and the way of exerting power.

In terms of how platforms render legible, the shift consists of a move from traditional data to Big Data. This shift is not merely a question of new quantities of data or new tools – rather, in the words of Boyd and Crawford (2012), digital data are associated to ‘a profound change at the levels of epistemology’ (p 665). While survey data is constructed for processing through variable-based analysis, requiring pre-compartmentalized data designed to be palatable for a scientific perspective that sees the social world through a lens of averages and variances, Big Data tends to be structured by and for algorithmic processing, implying indexed data structures and traversable networks (Mackenzie, 2012; Marres, 2017). While traditional data slot reality into fixed categories, variables, and variances, concealing its interactional elements (Conte et al, 2012; Lazer et al, 2020), Big Data are relational, interactive, heterogeneous, interactional, and emergent (Törnberg and Uitermark, 2021a). The social ontology that digital technologies operationalize is not focused on the summing up of a population in fixed categories, but rather on the individuals and their dynamic connections and interactions (Uprichard, 2013; Castellani, 2014; Törnberg and Törnberg, 2018). Rather than focusing on populations – assumed to be the sum of their parts – Big Data sees the world through clusters and patterns, located within a larger data structure.

While traditional data was collected periodically, giving a snapshot of a defined population, Big Data is continuously gathered – and continuously fed algorithms that redefine clusters and patterns and seek to modulate their behaviour. Data power is fueled by a continuous flow of surveillance and control, from sensors that are seamlessly integrated into the urban fabric.

Big Data thus gives space for forms of diversity, mobility, and individuality that traditional data erased – tracing individuals through thousands of ever-shifting attributes. While traditional data sees order from above, digital data
sees it *from below*: traditional data imposes grids and straight lines, while Big Data allows fractal structures and diversity. But the epistemic shift associated with Big Data representations does not imply that the world is more correctly represented: as new aspects are brought into focus, others become blurry (Andersson and Törnberg, 2018). Any way of rendering legible requires abstraction, erasing aspects of the phenomenon.

In terms of how platforms exert power, the shift consists of a move from top–down command-and-control to a form of control mobilized through the design of programmable social infrastructure. If ‘the medium is the message’, as McLuhan argued, then consequently the one who controls the medium controls the message. This is the foundation of platform power. Platforms operate by providing the social infrastructures that underlie actions, and thus exerting control by designing these infrastructures so as to generate certain outcomes – drawing on massive behaviour data to engineer social systems through infrastructural design. Yeung (2017) refers to this mode of control as ‘hypernudging’, as digital platforms engage in a rigorous process of designing the architectures to alter behaviour in predictable ways. Platforms shape their users through a mix between soft and hard discipline, combining gamification and scores with detailed tracking, algorithmic control, and at times threats of fines and expulsion – all A/B-tested and designed to efficaciously shape user behaviour.

To design infrastructures is to define the rules and goals of the social games that people are playing as they engage in the world. As Thi Nguyen (2020) argues, such games operate in the medium of agency: they have the power to determine not only the mode of interaction, but the goals and motivations of players – that is, to shape their very subjectivity. To control a social infrastructure is to gain some level of control over the goals and rules governing social life. This is not to suggest that data power vacates the role of individual agency – but rather to say that it situates and sets the context of agency. As Marx famously noted, we make our own history – but not under the circumstances of our choosing. Platform power implies control not over our choices, but over their circumstances, by defining the material life so central to conditioning social life.

While regulatory power targeted individuals, platform power thus operates on the interhuman and relational level, seeking to algorithmically modify the social rules that govern social behaviour. Platform power thus implies a relational approach to control, reshaping the connections and relations between people, leveraging social behaviour to generate social pressure for change. While an individual may, of course, choose not to play or to disregard the imposed rules of the game, this will, as in any game, inevitably imply losing in the eyes of those who are playing.

Twitter provides an example of this form of power in action (Nguyen, 2021; Törnberg and Uitermark, 2021b). When we engage in public
conversation and discourse, we engage in a complex social activity in which each individual pursues their own goals – implicit, and often rich, subtle, and conflicting. Twitter’s interface thus constitutes the most profitable answer to the question: what type of game is public discourse? Twitter not only defines how we interact and with whom, but centrally supplants this nuance and diversity with simple points-based scoring systems to measure our conversational success – retweets, likes, and followers. By defining measures of our success that are irresistible in their simplicity and clarity, Twitter re-engineers our communicative goals. The effects of this are not restricted to the confines of the platform itself, but as social media have become the chief engine of public discourse in our society, the aims and motivations seep out to redefine public discourse and even political life more broadly – in a process that Hepp (2020) refers to as ‘deep mediatization’.

As Twitter applies this form of power to public conversations, so labour platforms like Uber are employing similar strategies for worker control. While purporting to provide a ride-share market, Uber sets the base rates its drivers charge, and limits the ability of drivers to accept or reject these offers – even creating ‘phantom cabs’ to give an illusion of greater supply to push down prices (Rosenblat and Stark, 2016). The Uber reputation system works as a normative apparatus, nudging both drivers and passengers toward a specific behaviour through scores, nudges, detailed tracking, algorithmic control, and threats of fines and expulsion – all A/B-tested and designed with precision to shape worker behaviour. At the same time, platforms shape subjectivities of workers by having them interact as competitors in a market rather than collaborators in a team, designing interfaces to prevent communication, and seeking to prevent emergence of a critical political subject needed for resisting the disembedding brought by the labour platform.

Törnberg and Uitermark (2020b) and Isin and Ruppert (2020) situate this novel digital form of control in Foucault’s history of power, arguing that it signifies a move from regulatory power’s top–down ‘average man’ data epistemology to a power shaped by the epistemic features of Big Data: cluster-based, relational, interactional, fluid, and ostensibly bottom–up. In the same way that Foucault (2008, 259) suggests that the modern disciplinary power was reshaped by the biopolitical power exerted by neoliberal rationalities, so is the biopolitical power of neoliberalism thus now being altered by the digital power made possible by digital technologies (Cheney-Lippold, 2011; Pfister and Yang, 2018). Platformization thus constitutes the rise of a new governing logic, coming to shift the fundamental market ideology, discipline, and rationality. As the neoliberal rationality came with an associated ideology and belief in the legitimacy of market rationality in regulating every aspect of human life, so does this complex control come with its associated ideology: what Malaby (2009) terms ‘technoliberalism’, defined by faith in the legitimacy of emergent effects – ‘the emergent properties of
complex interactions enjoy a certain degree of rightness just by virtue of being emergent’ (Malaby, 2009, 56). That is, the trust in the invisible hand of the platform algorithm.

Isin and Ruppert (2020) use the notion ‘sensory power’ to refer to this novel regime of power – as it is characterized by data collected from sensors. As Isin and Ruppert (2020) note, these regimes of power should be understood as layered rather than consecutive: it is not that old forms of power fall into complete disuse and become replaced, but rather that new forms emerge alongside them, nestling and intertwining, varying in salience across periods and contexts. Törnberg and Uitermark (2020a) instead use the term ‘complex control’ to describe the emerging regime of power, suggesting that is should be understood through the epistemology of the digital. The epistemic nature of the digital can best be understood through the fundamental distinction between complex and complicated systems (Érdi, 2007; Andersson and Törnberg, 2018; Törnberg and Uitermark, 2021a). The epistemology described by Scott’s characterization of the modern state was founded on complicatedness. Complicated systems are like sophisticated machineries: top-down, hierarchical and bureaucratic, each of their components designed to carry out an organized function that fits into a larger structure. Such systems can be made highly efficient and capable of executing large-scale tasks with extreme precision, but they are at the same time brittle: fragile to internal and external disturbances, and lacking in their capacity to adapt to shifting circumstances (Michod and Nedelcu, 2003). With the rise of digital power, we are seeing the shift to a complex regime of power. Complex systems tend to have less functionally differentiated components, and are instead organized through large sets of interacting components on the same organizational level (Andersson and Törnberg, 2018). In complex systems, the components ‘are to some degree independent, and thus autonomous in their behaviour, while undergoing various direct and indirect interactions’ (Heylighen et al, 2006, 125). The macrodynamics of complex systems emerges through ‘self-organization’, and by controlling the infrastructure, the outcome of self-organization can effectively be designed. Complexity is the epistemic structure of the digital, and as capitalism is becoming digital, complexity is coming to lie at the epistemic foundation of contemporary modernity.

Conclusion

The powers and capacities of digital platforms first emerged with great expectations – narratives of a ‘sharing economy’ beyond both market and state, embodied in platforms like Wikipedia and CouchSurfing. Digital technology seemed to bring promises of new social infrastructures that could enable scalable forms of ‘commons’, and more egalitarian forms of exchange.
Instead of fulfilling such promises, however, we have in recent decades seen digital technology enabling capital to not only further its conquest of commons, but undermining democratic power, weakening public services, promoting labour precarity, violating privacy, and destabilizing the world’s democracies. Through code and data, governance is depoliticized and privatized, organized as proprietary algorithms that employ massive behaviour data to engineer social systems through infrastructural design – turning social issues into technical problems to be solved through private means.

The shifts accelerated and made visible by the COVID crisis were already years in the making. Platform corporations like Google and Apple agreed to share with cities and governments a small whiff of their immense trace data – such as the exact location and movements of individuals around the world. News media published agent-based contagion models showing the virus spread in social networks, explaining complexity theory terms like ‘feedback loop’ or ‘non-linearity.’ Companies, NGOs, and governments created online dashboards to visualize the data traces of the spread of the virus and the efficacy of government action. Government engagement in such data power was perhaps primarily performative – a Silicon Valley cargo cult built on the aesthetics of Big Tech – as they sought to conceal the effects of decades of neoliberal cutbacks on the emperor’s clothing that is public governing capacity.

The word crisis comes from the Greek krisis, meaning ‘decision.’ Hippocrates used the word to describe a moment of uncertainty in the progress of a disease, at which the patient arrives at the fork in the road: one path leading to recovery, and the other to death. As the accession of data power has been made visible by the pandemic, we are perhaps finding ourselves at such a choice. We can yet envision digital technology that enables new forms of democratic governance, supporting transnational regulatory governance institutions to face the globalization of capital (Scholz, 2016; Schneider, 2018). Platform infrastructures could be strictly regulated in service of a democratically defined public good, with platform design made subject to political and democratic decision-making. Such models could include what has been referred to as ‘platform cooperativism’ (Scholz, 2016; Schneider, 2018) or ‘platform socialism’ (Muldoon, 2022), in which non-market actors are charged to use the capacities of digital technology for the expansion of non-market values such as solidarity, democratic ownership, or seeking to achieve fair labour conditions by, for instance, implementing digital forms of collective bargaining processes.

As Marx and Engels noted, the decision inherent in any crisis is by nature a political one. The path that is chosen is determined not by technology, but by political organizing and collective action. To take the road which leads to more democratic and egalitarian ends depends on us exercising our political imagination, and taking charge of events – requiring flexing political
muscles that have atrophied during decades of neoliberal hegemony. As data has transformed governance and politics, shaping a future calls on the realization that data is regulation, data is institutions, data is power – and so it must be made subject to the political life of the community.

References


