The Politics of Platforms. Exploring Platforms' Infrastructural Role and Power



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1 Introduction

Do artifacts have politics? is the title of a well-known article that political theorist Langdon Winner (1980) published four decades ago. There he demonstrated that artifacts (infrastructures included) incorporate politics and poetics, shaping the material and virtual phenomena of our shared societal-space. Winner focused on Robert Moses' work, designer of modern New York. Moses designed bridges leading to Long Island beaches with underpasses as low that buses were unable to run under them. In doing so he restricted access to a wealthy area through infrastructural shaping that intentionally alienated working-class populations (buses' users) and their modes of transport. Taking this example, politics of infrastructures seems quite clear.

In this chapter I will assume the statement that platforms are infrastructures as well as prominent literature do, despite ambivalently. Nick Srnicek in his crucial book *Platform Capitalism* defines platforms as «digital infrastructures that enable two or more groups to interact. They therefore position themselves as intermediaries that bring together different users: customers, advertisers, service providers, producers, suppliers, and even physical objects» (2016, p. 48). Srnicek etymologically refers to platforms as infrastructures because they «position themselves as intermediaries» (Ivi, p. 57). This definition seems too large since it allows to consider every single web platform in infrastructural terms losing the theoretical strength of this definition. Oppositely, in *The Platform Society*, José Van Dijck, Thomas Poell and Martijn De Waal Van Dijck et al. stress the infrastructural character just of the so-called GAFAM (Google, Amazon, Facebook, Apple and Microsoft) because, according to them, they are the only platforms that allows other platforms to operate (Airbnb could not work without Google Maps etc.). Even this definition seems to be not properly balanced. Indeed, if on one hand GAFAM are infrastructures since they

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place side by side to their digital role a material one too (with the property of fiber cables, datacenters or warehouses), even other platforms perform an infrastructural role. This is the case, for example, of Airbnb or Uber as we will see later on. Jean-Christoph Plantin et al. go further these definitions stating that despite platforms and infrastructures originally «differ in scale and scope», today «networked computing and changing political sentiment have created an environment in which platforms can achieve enormous scales, co-exist with infrastructures, *and in some cases compete with or even supplant them*» (Plantin et al., 2018, p. 301). In other words, we see both a *hybridization* («a "platformization" of infrastructures and an "infrastructuralization" of platforms», Ivi, p. 298), and a «contemporary convergence of platforms and infrastructures» (Ivi, 301). This seems a generic-enough definition that, in line with what I shall show, gives to platforms the correct framework allowing to treat them as infrastructure in proper terms.

Once assumed the infrastructural dimension of platforms, I shall move forward. More specifically, I shall explore and extend what means to consider platforms as infrastructures in terms of politics and, ultimately, in terms of power. Indeed, collaborating or competing with the State platforms display their politics challenging Leviathan prerogatives. Should be noted that not just GAFAM do so. As a matter of fact, even platforms like Airbnb or Uber "infrastructurized the web", playing undoubtedly a governmental role either directly (influencing or leading political decisions) or indirectly (shaping people's life). Additionally, I shall extend the analysis of platforms power by investigating two further original sources: the use of algorithms and the extraction of users' data. These two additional power tools led them to achieve a peculiar position in the global present as much that they cannot be considered as merely economic actors. They represent the politics within Capital: they are political players within the political arena. As such we should trait them both to grasp their actual influence on States policy and to clench the "extrastatecraft" players that address society.

Thus, after a general picture on the "politics of infrastructure", in this chapter we will focus on three aspects related to the "politics of platforms as infrastructure". First of all, we will show that a rigid hierarchization between platforms should be blurred. As a matter of fact, investigating the relationship with the States will clearly show how multiple platforms do politics thanks precisely to their infrastructural position. In the second section we will analyze what we consider the two most peculiar sources of power of platforms: algorithmic management and data extraction. In terms of Shoshana Zuboff, platform «revives Karl Marx's old image of capitalism as a vampire that feeds on labor, but with an unexpected turn. Instead of labor, surveillance capitalism feeds on every aspect of every human's experience» (Zuboff, 2019, p. 16). In other words, platforms «code society as a productive environment shaped by multifarious forms of cooperation from which they extract labor and value in an elusive way» (Mezzadra & Neilson, 2019, p. 83). Finally, we shall see how platforms achieve and play a kind of «Infrastrutural Power» (Mann, 1984, 2008) where at stake are "Algorithmic Subjectivities" (Into the Black Box, 2021; Cuppini et al., 2022) or "Circulating Subjectivities" (Cuppini et al., 2023) and their conducts. While, on one hand, to apply the concept of "infrastructural power" to

platforms can shed light on the pervasive character that they can achieve in the so-called "platformized" society (Casilli & Posada, 2019), 1 on the other hand to define and isolate the form of power they implement, it can offer new perspectives on different and often atomized form of resistances.

2 About the Politics, the Grow and the Disappearance of Infrastructures

Infrastructures are living today a conceptual and theoretical contamination and enlargement. While still in 2009 Edwards et al. could note that the word "infrastructure" «often (but not always) connotes big, durable, well-functioning systems and services, from railroads and highways to telephone, electric power, and the Internet» (2009, p. 365), today this definition fits too tight. So, out of the narrow and classical definition of "material infrastructures" like—so to speak—railways, pipelines, or bridges, we can easily read about the "infrastructure of care" (Poo, 2015), "Green Infrastructures" or—on a more theoretical layer—about the "Infrastructure of Race" (Nemser, 2017) or "Boarder as Infrastructure" (Dijstelbloem, 2021). This shows how "infrastructures" is a dynamic category that historically grows and disappears according to societal changes.

Plantin et al. brilliantly resume that «Infrastructure studies developed along two main intellectual lines. The first sought a historical perspective on large technical systems (LTS)» (2018, p. 295). From railways to electric power grids or telephone cables, infrastructures are built «when a need arises to link heterogeneous system into *network*» (p. 295). This represents the most classical approach on infrastructure studies and draws on Thomas Parke Hughes's book titled *Networks to Power* (1983)

¹ Casilli and Posada identify five aspects of the "platformization" phenomenon. Firstly, platforms replaced «pre-existing modes of economic coordination». More widely, platforms literally subsume market, and present themselves as «concrete solutions to real life problems»: «as markets, they select goods, manage information, or even establish prices of its services» (p. 300). Secondly, according to Casilli and Posada (and many others), platforms use data to create value in a double meaning. On the one hand, platforms take advantage from the user-generated contents such us a video posted through YouTube, for example. On the other hand, platforms have commercial advantage from «any information provided by the users» (p. 301), even a like on a post, a picture on Facebook or an IP address attached to Wikipedia. Thirdly, platforms put users at work even unconsciously. "Free labor on the net" (as defined by Tiziana Terranova) is usually intended by platform as process of co-creation while should be considered most properly in terms of "digital labour" as Trabor Scholz did (2012). Fourthly, the "platformization of society" can be observed by the «users' behavior fragmented and reduced to standard tasks» (p. 297): « In order to generate data and to allow algorithmic matching of different groups of individuals - Casilli and Posada state -, platforms encourage the 'taskification' of work, or the reduction of human activities to the smallest conceivable unit of execution (virtually, a click), to facilitate interconnection and value capture» (p. 304). Finally, what is usually descripted as the power of the algorithm are in fact something produced by human intense labor. According to Casilli and Posada's research, «automation [is] performed by crowds of human users» (p. 305) that mostly from the global south work hidden by a thin layer represented by algorithms.

² https://environment.ec.europa.eu/topics/nature-and-biodiversity/green-infrastructure_en.

that conceptualizes infrastructure in systemic terms rather than isolated. Noteworthy are studies that read through an infrastructural lens the process of systems building like those of telephone, railroads, etc. Other interesting applications are those focused on the European Integration process. Known under the label of "Making Europe project3" they show how European integration was literally built on infrastructures. From railways to communication systems, from electrification to radio cable, the focus on infrastructures allowed to grasp the international process that long before the European Cool and Steal Community (usually considered as the first step of contemporary EU) paved the way to the economic and political integration.

The second intellectual line stressed by Plantin et al. «elaborated the phenomenology and sociology of infrastructures» (p. 296). This stream considers infrastructures as «actants» adopting the Actor-Network Theory (ANT) prompted by Bruno Latour. In the ANT the focus is not on the "morphism" of the object of study, but on the object itself: *«ideo-*, or *techno-*, or *bio-*morphisms are "morphism" just as much as the incarnation of some actant into a single individual» (Latour, 2005, p. 54). The "associology" of Latour is not limited to the social field, but rather looks at «another matter made *of* social relations» (Ivi, p. 9). Thus, Latour understood infrastructures as "actants" that convey material associations creating new collectives («new entities not yet gathered together»—Ivi, p. 75).

Following this second stream, the political aspect of infrastructures clearly emerges. Literature is teeming with books that examine the political side of infrastructures, and of artifacts more generally (Braun & Whatmore, 2010). Barbed wire, for example, has been widely analyzed in its political aspects (Netz, 2009; Razac, 2005). Railways are the infrastructures studied the most in political terms: from the process of European Integration (Anastasiadou, 2008; Frapporti, 2019; Opitz & Tellman, 2015; Schot et al., 2011) to the focus on North American states (most famous is Innis, 1923 on Canada). Other examples on the political role undertook by streets (Guildi, 2012), power plants (Collier, 2011) or Information Technology (Fickers & Griset, 2019) could be made. Whatever they compose, and whatever it is the form they take, the political role infrastructures play is clear. What is interesting is that such a role could be taken by artefacts that were not considered in infrastructural terms when they were born.

This is the reason why the concept of "infrastructures growth" deserve attention, even though it is usually applied to the LTS approach. According to Edwards et al. infrastructures live in three phases: gateway, growth and consolidation. In the first one, separate heterogeneous systems are linked together «to form more powerful and far-reaching networks» (2009, p. 369). This is the phase when a technology per se reaches the infrastructural dimension, offering «service (lighting), rather than a commodity (electricity) or an isolated device (the light bulb)» (Edwards et al., 2007, p. 8, see also Edwards et al., 2019). The second phase regards growth and technology transfer: «Once an LTS has been successfully constructed in one location, *technology transfer* to other locations (organizations, cities, nations) follows» (Ivi, p. 9). This implies that it could incorporate properties originally dissimilar, homogenizing and

³ https://www.makingeurope.eu/.

spreading a standard. Just bore, railways had a different gauge according to the different companies. A crucial step for railways to become infrastructure was the assumption of a common gauge (the Stephenson one). Finally, in the consolidation phase there is a "network formation". Different systems became infrastructures to find the way of interoperating: «In rare cases, one system wins total victory over the others. More often, developers create *gateways* that allow previously incompatible systems to interoperate» (Ivi, p. 10).

Despite Edwards's analysis being primarily relevant for material infrastructure that composes LTS, we think that it can be applied to platforms too, whose "growth" to the infrastructural position has been dramatically swift. Today platforms sustain everyday life as well as other infrastructure. In doing so, they perform an intrinsic political role not always in broad daylight. Re-elaborating the famous state of Mark Weiser, "The most profound infrastructures are those that disappear". Hiding their position, they appear just taken for granted. That is why the role played by platform workers' struggles in the last year deserves a constant attention: struggles reveal something that would aim to be hidden. We will focus on them again in the last part of this chapter.

3 The Politics of Platforms and the Relation with the State

«The distinction between infrastructural and sectoral platforms is not fixed or set; rather, there is a constant dynamic that drives them toward integration» (Van Dijck et al., 2018, p. 17). Despite a quite clear reasoning throughout the book regarding the distinction between infrastructural and sectoral platforms, even Van Dijck et al. are not taking for granted the unchangeability of the two sets. Rather, «the status of platforms is subject to continuous change, a process we call "platformization"» (Ivi, p. 18). As they note, even "sectoral" platforms like Uber could play the role of "complementor" indeed, which is the main character they consider highlighting the "infrastructural role" of the GAFAM. From our perspective, we could add few further assumptions that verify not just their infrastructural position, but also their politics in relation with the States one.

Firstly, since 2007/08 economic crisis, platforms of different kinds have occupied and "infrastructurized" digital space, raising several issues. Like material infrastructures, digital infrastructures connect but, at the same time, restrict and impose behaviors. It is uncommon today to book a non-hotel accommodation in Europe or North America without using Airbnb or Booking.com. Similarly, it is unthinkable to penetrate a community of users as large as WeChat do in China. To same extent,

⁴ The Stephenson standard is just adopted in most of Western World, North Africa, Middle East and China. Other zones have still another gauge.

⁵ Original state sound as follow «The most profound technologies are those that disappear» (Weiser 2001).

⁶ WeChat is a very interesting case that deserve particular attention. As pointed out by Plantin and Gabriele de Seta in a 2019 article, «WeChat now combines the proprieties of platforms and

we could focus on Rappi or Mercadolibre too, that once again answer to the same characteristics of US or Chinese "infrastructural platforms" but in Latin America (see De Stavola, 2020; Filippetto & Harraca, 2022). In all these cases, "alternative" channels are not disappearing, but the hegemonic trait that these platforms impose is evident. After all, even when the railways became widespread in the XIX century, it was still possible to transport goods via the river system, but opportunity addressed the choice.

The second reason why a hierarchization of platforms should be nuanced is more intertwined with the political and governmental character of their operations. Multiple platforms can be considered as part and parcel of the complex network that makes up contemporary governance. Benjamin Bratton calls such network «The Stack» (2015). It is worthwhile to delve into this concept because it can help us to highlight the political character of platforms.

According to Bratton, "The Stack" is an «accidental megastructure» composed by six interdependent layers (Earth, Cloud, City, Address, Interface, User) that could be conceived as a model: «simultaneously a portrait of the system we have but perhaps do not recognize, and an antecedent of a future territory» (Bratton, 2015, p. 5). Constantly confronting with the great philosophers of sovereignty (from Hobbes to Weber and Schmitt), Bratton's crucial assumption states that «our contemporary condition is qualified both by a debordering perforation and liquefaction of this system's ability [those based on States] to maintain a monopoly on political geography, and by an overbordering, manifest as an unaccountable proliferation of new lines, endogenous frames anomalous segments, medieval returns, infomatic interiors, ecological externalities, megacity states, and more» (Ivi, p. 6). Thus, he understands the Stack as a «scale of technology that comes to absorb functions of the state and the work of governance» (Ivi, p. 7). In these terms, platforms play as political subjects that could act both in coordination and in competition with the State.

As far as coordinated government is concerned, the cases to be recalled could be manifold. To cite just a few examples, think of the US NSA's capillary surveil-lance revealed by Edward Snowden, or of Cambridge Analytica that involved not only platforms such as Facebook, but also prominent political figures such as Steve Bannon. In China such a process of algorithmic and data control is even stronger and more evident. With some regulatory acts at the end of 2021, the Chinese government

infrastructure» (2019, p. 2): it is similar to Western "infrastructural platforms" like the GAFAM, but «with Chinese characteristics» that combine platform features with «platform protectionism», «governmental control» and «nationalization». All in all, WeChat «is a vector for infrastructure building endeavors that prove to be both more successful than their state-backed precedents, and more controllable than purely private entities» (2019, 13).

⁷ Bratton argues that if the State derives its notion of sovereignty from the occupation of territory, platforms govern the Cloud which is just a separated but intertwined Layer of reality. In these terms, the metaphor of "the Stack" seems once more effective in reading sovereignty outside of State exclusivity and sometimes even opposed to it. This does not mean that State power is disappearing. Rather, that is remodulating. Point then «is not another prophecy of the declining state withering away into the realm of pure networks, but to the contrary, that the State's own pressing redefinition takes place in relation to network geographies that it can neither contain nor be contained by» (Bratton, 2015, p. 114).

erected the so-called Great Firewall trying to fight against internet a-territoriality and imposing a State data control coordinated with the digital platforms. All this shows how artificial intelligence, platforms and, more generally, algorithmic technology are sometimes sought by States to complement their political functions.

On the level of competing government, multiple platforms openly challenge the prerogatives of States in several directions. Firstly, on the digital side, we would recall the challenge to one of the cardinal principles of the State, that linked to the minting of money: the attempts of some platforms like Facebook (with Libra) or more recently like Apple, 8 to spread a digital currency is meaningful. Furthermore, it competes with the State in terms of scientific research: in many cases private companies in general, and platforms more specifically, invest substantial resources in R&D nowadays, even if they are "throw-away investment". Then, we could recall welfare policies implemented by platforms for their workers. In 2022, a great debate was generated in the United States around the Supreme Court's decision to overturn the Roe vs Wade ruling denying abortion the status of a federal right. On that occasion, Amazon offered to cover the costs of travel for its employees to get abortions in states where it was still legal. Same could be said for Airbnb or Uber inner employees. Another example of competing government clearly rises if we look at China and at the first «Sino-Google War» of 2009, «a conflict not only over the right to control search engine results, but indeed over the predominance of two different modes of sovereignty» (Bratton, 2015, p. 112). War started after the request of China to monitor and control search results on Google within the Chinese territory. Due to Google's refusal, platform was pulled out from the State since 2012, and even today the use of Google (and its services like YouTube, Google Maps, etc.) has remarkable restrictions. The war between State actors and non-State actors was «less between two superpowers than between two logics of territorial control» (Ivi, p. 112). A logic that, widened applied, shows clearly how platforms are far from being just a technical object or an innovative economic business model.

Out of such ambivalent relation with the State, platforms politics is clear also when we think on their hegemony in the production of discourse or to their action in moderating users' contents (Twitter and Facebook's "censorship" of Donald Trump's tweets is well known; similarly, we could consider the "censorship" on the Covid-19 denialist decided by a private company). Furtherly, it could run to their functions as a political flywheel, as during the "Arab Springs", which still saw Twitter as a decisive social media in terms of communication and organization (so much so that there has been talk of "Twitter Revolutions"), or like it has more recently happened in Hong Kong. Finally, the politics of platforms is clear where we look at the challenges that they (im)pose to the labor market, as showed in the PLUS project, which has in fact been disrupted by their arrival.

In multiple situations platforms do politics. Sometimes they do so in coordination with the States. In other cases, they do so in competition with authorities. Either

⁸ https://www.forbes.com/sites/derickdavid/2022/04/11/apple-and-crypto-heres-what-you-should-know/.

⁹ http://www.intotheblackbox.com/articoli/riot-logistics/.

way, platforms' impact on social life is far to be confined on their surface. Amazon is far to be just a logistics player; Uber is not just a hailing platform; Facebook is out to be a simple social media. Executive chairmen of Meta Mark Zuckerberg stated as follows in 2017: «"In a lot of ways Facebook is more like a government than a traditional company. [...] We have this large community of people, and more than other technology companies we're really setting policies"». ¹⁰ Zuckerberg seems clear enough.

4 Sources of Power: Algorithmic Governance and Data Extraction

Popular Netflix series Black Mirror dedicated a full episode to algorithmic governance fed by data extraction. In the dystopian scenario depicted in the episode entitled "Nosedive" everyone in society shares their activities and rates (or were rated) by other people or authorities. According to rating, people could have access to services allowed by algorithmic management and data elaboration. Today such situation is a tangible reality. Algorithms are used for rating, scoring, prediction, terrorism prevention, combat tax evasion, border control, migration management and so on thanks to the data that feed them. All this implies different and controversial perspective (Katzenbach & Ulbricht, 2019). Nonetheless, it is a kind of truism to state that their impact on society is more than perceptible and often implemented through platforms which take advantage from these two new sources of power: an algorithmic way of governance and an uncountable amount of data extracted by people's lives. In this section we shall explore these two sources of power.

Firstly, in digital platforms the algorithm is law. As Robert Gorwa stresses recalling Lawrence Lessing: «"code is law", and the decisions made with respect to design by the curator of an online service effectively correspond to a form of regulation» (2019, p. 859). In a society where many relationships are mediated by platforms and where their penetration into multiple domains has become a de facto part of society itself, their power is increasingly palpable. The algorithm «enables and imposes specific forms of user behavior», Gorwa argues (*Ibid*—we will be back on this).

Furtherly, the role of the algorithm shows an unprecedented character of today's capitalism, namely the need to govern increasingly complex and intertwined systems based on the principle of *just in time and to the point*. Such "logistical rationality" reinforces the need to rely on computational algorithms also in support of and in parallel with political governance. As Frank Pasquale stated: «authority is increasingly expressed algorithmically» (2015, p. 8). In support of governance, authority use algorithms «to ostensibly allocate welfare benefits, combat tax fraud, secure the border, police communities, and prevent terrorism» (Srivastava, 2021). In parallel, States or even municipalities could use platform algorithms for governance purposes.

¹⁰ https://www.theguardian.com/technology/2017/sep/19/facebooks-war-on-free-will.

A very interesting case is Lisbon, whose municipality co-created a new urban planning with Uber thanks to «microdata on transit and urban mobility» collected by the platforms (Tomassoni & Pirina 2022, p. 257). Similarly, Cincinnati «taps Uber data to improve local transit». Thanks to Uber data sharing platform called "Movement", Uber provided the municipality «Uber's data to help urban planners make informed decisions about our cities». Same has been done in Melbourne, Sydney, Perth, Brisbane, Manila, Washington DC, or multiple other cities in the US.

The capacity of extract data is the second decisive source of political power (and economic valorization) for platforms. The extractive power of Capitalism is today not just conveyed on raw material (Arboleda, 2020). Rather, extractive power of contemporary capitalism refers to users' data. As Mezzadra and Neilson brilliantly showed, «Today we do not just mine coal, nickel, and other raw materials; we also mine data. Moreover, the forms of extraction implicit in data mining and other extractive activities that prey on human sociality are ever more at the edge of capital's expanding frontiers» (2019, p. 38). Thus, data can be either extracted or created by platforms, codifying users' behaviors: this implies a process of "datification" (see Van Dijck et al., 2018, p. 33), a further source of political power for platforms.

Data accumulation revolutionized capitalism at least since the early Eighties. After innovation in logistics (so-called "Logistics Revolution", see Allen, 1997; Bonacich & Wilson, 2008; Cowen, 2014), in the 80 s another "Revolution" occurred in the field of retail: Wal-Mart became the new paradigmatic brand of economy (Lichtenstein, 2010). Thanks to Logistics Revolution, retailer power drastically increased telling to «manufactures what consumers were actually buying and therefore what the manufactures should produce, when they should produce it, and, sometimes at what price» (Bonacich & Wilson, 2008, p. 6). Retail Revolution represents the beginning of the *just in time to the point* era, which is a sort of mantra for contemporary capitalists. Before Amazon, Alibaba, etc., Wal-Mart gained (economic) power mining data from its clients. As Bonacich and Wilson put it: «the collection of POS data put power into the hands of the giant retailers. They knew consumers were buying, which prices were most effectively maximizing sales, which products were gaining and losing popularity, and how buying patterns were differing demographically and regionally» (Ivi, pp. 7–8).

¹¹ Must be said that these agreements soon fell due to the scarcity of data shared by the companies, which, despite signing the memoranda, turned more directly to the national government, effectively rendering the agreements with the municipality a dead letter Tomassoni e Pirina "Portugal: um laboratório para a Uber", Le Monde Diplomatique, https://pt.mondediplo.com/spip.php?article1314.

¹² https://statescoop.com/cincinnati-mobility-lab-taps-uber-data-to-improve-local-transit/.

¹³ https://www.uber.com/newsroom/introducing-uber-movement-2/.

¹⁴ https://medium.com/uber-movement/helping-build-the-ipa-transport-metric-to-see-how-cities-move-1656e1da7e54.

 $^{^{15}\ \}text{https://medium.com/uber-movement/analyzing-trends-in-2015-holiday-travel-conditions-dbd }572\ \text{fcd}072.$

 $^{^{16}\} https://medium.com/uber-movement/the-effects-of-dc-metrorail-service-disruptions-on-traffic-congestion-8a14c8d5fa7c.$

Today we live in such situation on an extreme level: "Datafication", together with data collection and elaboration, exacerbated what started with the "Retail Revolution". The capacity of platforms to «instantaneously track individual and group behavior, aggregate these data, analyze them, and translate the results to users, marketers, and advertisers, as well as to a wide variety of public institutions, organizations, and corporations» (Van Dijk et al., p. 35), it is outstanding. It is what Shoshana Zuboff considers one of the main features of "Surveillance Capitalism" which «unilaterally claims human experience as free raw material for translation into behavioral data» (Zuboff, 2019, p. 14). Zuboff calls these data "behavioral surplus", human activities datafied and then transformed into value and predictions. In the Surveillance Capitalism, this extraction of data aims both at value accumulation and at governing human behaviors. It is a matter of conducts. In Foucauldian terms, it is a matter of governmentality which is «the set of instances that adapt the exercise of power to the centrality of the economy rather than of law» (Chignola, 2022, p. 38).

To sum up, algorithms management and access to data is a decisive element in promoting the political role of platforms insofar as the implementation of public policies is also based on data knowledge and elaboration. Despite multiple attempts of public regulation of digital platforms, what matters more today is not the return of the State, but rather the encroachment of platforms into the terrain of politics should be highlighted. Bratton, Zuboff and many other authors did so. In this paragraph we tried to enforce this demonstration that lay on the politics of platform. Now, in the last section, we will expand on platforms' use of data for shaping social behaviors, even where State itself cannot (always) arrive.

5 Shaping Conducts by Extracting Data: Platforms' "Infrastructural Power"

As seen in previous section, algorithmic management and data accumulation and elaboration are constantly implemented by platforms to govern conducts. We already qualified such subjectivities shaped by digital infrastructures as algorithmic (Into the Black Box, 2021; Cuppini et al., 2022) and circulating (Cuppini et al., 2023) to underline also the role played by data flows and elaboration. In this last section, I will define more narrowly such platforms' power that shapes conducts as an "infrastructural power": those that Michael Mann in 1984 referred to as the State and that today seem easily transferred to other Capitalist actors such as platforms.

According to Mann, "infrastructural power" refers to the «capacity of the State to actually penetrate civil society, and to implement logistically political decision throughout the realm» (1984, p. 113). Differently from the past, Mann asserted, «the State penetrates everyday life more than did any historical state» (Ivi, p. 114). It can act accordingly because:

«[The State] stores and can recall immediately a massive amount of information about all of us; it can enforce its will within the day almost anywhere in its domains; its influence on

the overall economy is enormous; it even directly provides the subsistence of most of us (in state employment, in pension, in family allowances, etc.)» (*Ibid*).

Furthermore, Mann recalled economic power grouping like General Motors looking for economic advantages that were not territorially confined. Differently from them, «only the state is inherently centralized over a delimited territory over which it has authoritative power» (Ivi, 123). Considered in these terms, the "infrastructural power" of States in Capitalism 4.0 seems to be questionable at least from a double side perspective. Firstly, because what Mann considered «the most important precondition of state power» (those of territoriality, p. 122) seems today blurred. Secondly, because the means toward which State penetrates everyday life are rather in the hands of platforms. In what follows we shall isolate the main features that Mann bestows to "infrastructural power" showing that they are today compelled by platforms.

First of all, today infrastructures, political or economic arrangements can contribute either to the rise of "new political entities" or to put into question existing political space, rewriting the global political cartography. In 2004 Neil Brenner was quite clear recalling that «it is no longer capital that is to be molded into the (territorially integrated) geography of state space, but state space that is to be molded into the (territorially differentiated) geography of capital» (Brenner, 2004, p. 16). And he was not the sole who stressed so in those years (see for example Hardt & Negri, 2000; Sassen, 2006). Far before the rise of platforms as new actors of contemporary governance, many critical theorists stressed the variety of spaces that mark contemporary geography (Cowen, 2014; Easterling, 2014; Frapporti, 2019; Grappi, 2016). Precondition for State infrastructural power seems weakened in today's political geography. States do not seem the sole actors that exercise sovereignty on a given territory. ¹⁷ Rather, it shares its prerogatives and its territorial infrastructural power with many other governance subjects.

Secondly, States are not the main repository of people's data today, something crucial in Mann's perspective to impose an "infrastructural power". Rather, platforms seem to have this advantage. Platforms "can recall immediately a massive amount of information", indeed. We saw above how today platforms enclose the power both to collect user data and to codify any behaviors into data. In such perspective they benefit of an even higher degree of "infrastructural power" compared with the State one, since they can collect and use further information extracted thanks to the penetration into the intimacy of people's lives.

Such a feature gives to platforms the substantial capacity to "enforce their will". According to Zuboff, "Under surveillance capitalism, the "means of production" serves the "means of behavioural modification" (2019, p. 331). She names this species of power as "instrumentarianism", considered as "the instrumentation and

¹⁷ State has never been the sole governance actor on a defined territory. As shown by Charles Maier: «Although political theorist have often insisted that sovereignty is absolute, in practice it has often been partial or nested within imperial or associative structures» (Maier, 2014, p. 7). Maurizio Ricciardi too claim that it is completely wrong to consider the State as «the sole and sometimes the only indicator of order in modern society» (Ricciardi, 2013, 82).

instrumentalization of behaviour for the purposes of modification, prediction, monetization, and control» (Ivi, p. 332). Despite it is not the case to recall "digital totalitarianism" as many did (see a thorough list in Zuboff, 2019, p. 622), platforms can be considered as «the puppet master that imposes its will through the medium of the ubiquitous digital apparatus» (Ivi, p. 353). Once more we see how infrastructurally they can impose themselves as truly form of power.

About the great "influence on the overall economy", the point seems even underestimated. If we focus on Amazon, we see how it yearns for the building of an extended and hierarchical ecosystem, expanding toward or incorporating other capitalistic realities. Amazon's ambition is to compete not *in* the market but essentially *with* the market, which is something it shares with a multitude of other platforms (such as Airbnb, for instance, which tends to catalyze hosting).

Finally, platform sometimes "directly provides the subsistence of most of us". Facing the constant erosion of public welfare, for example, today platforms increasingly guarantee to their employees—and only to them—access to health and care services. This is not new, but it is becoming structural and that considerably increases platform governmental role. In case such that of Amazon in the US and Canada this appears outstanding. From access to affordable housing to free dentist or Amazon Canada Refugee Support Program, ¹⁸ the company uses such promises to build workers' loyalty offering to them a kind of additional citizenship. ¹⁹

"Infrastructural power" allows platforms to enter people's lives similarly as State do. In this section we showed such feature taking the definition of "Infrastructural power" offered by Mann and decomposing it in order to test if the different parts could be applied to the platforms' way of action rather than that of States. Thus, we saw that today platform incorporates many characters of what were considered States prerogatives indeed.

6 Conclusion

In this chapter we have tried to show multiple characters of platforms that link the role they play within society to the governmental sphere. In doing so we have problematized and reshaped the perspective that reserves the role of infrastructure just to the GAFAM. Indeed, we stress that other platforms like Airbnb or Uber for example, play a similar role. On one hand, the latter too have "infrastructurized" digital space "forcing" users to pass through them in order to get access to services. Take Airbnb. Although it shares the worldwide control on online accommodation

 $^{^{18}\,}https://www.newswire.ca/news-releases/amazon-canada-launches-innovative-refugee-program-offering-vital-resources-to-meet-critical-needs-of-refugees-resettling-in-canada-872955077.html.$

¹⁹ As emerged talking with Amazon Unionist in Canada, these are promises not always realized: sometimes they appear just as a chimera. See www.intotheblackbox.com.

booking market together with Booking.com and Expedia.com, ²⁰ in terms of non-hotel accommodations and so-called Peer-to-Peer economy it has no rivals. It became a crucial infrastructure of global tourism, much more than any other.

On the other hand, many platforms and not just GAFAM play as governmental actors, as showed in the third and fourth sections. Infrastructures have politics. Platforms, as infrastructures, have politics too. They are part of the complex set of powers that govern society: Benjamin Bratton calls "the Stack" such a set of powers; Foucault talked about governamentality to identify the multiple forms of powers; Charls Maier talks about "Leviathan 2.0". Point is to get out «from the enchantment that refers power only to the State» (Chignola, 2022, p. 91). Platforms' power (and platforms' politics) can be carried out in coordination or in competition with the State. In any case, once platforms are growing stronger, they are keen to compete with institutions: they can do so mostly thanks to their great capacity of extract, accumulate or even "create" data, and to the algorithmic capacity of implement decision. Amazon and Google are clear examples of such platforms, but they are not the only ones.

Finally, in the last section we saw the form of power that platforms exercise which can be defined as a sort of "infrastructural power" in Michel Mann's terms. Through their infrastructural power platforms can shape conducts: data accumulation allows them to enforce their will over population. It is not by case that precisely against platforms burst very important struggles in the last years. Assuming that power can only be analyzed just «starting from what resists it» (Foucault recalled by Chignola, 2022, p. 22), the role played by platforms even during the pandemic revealed its increasing centrality within society. For such a reason it is crucial to keep the focus on it. Struggles allow to keep the attention on a power that, as well as infrastructure, aims at disappearing.

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²⁰ https://www.businesswire.com/news/home/20221114005897/en/Global-Online-Accommoda tion-Booking-Market-Analysis-Report-2022-Booking.com-Airbnb.com-and-Expedia.com-Dom inate-the-Market---ResearchAndMarkets.com.

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