

## ***Bratton and the Double Movement of State Platformization and Platform Institutionalization***

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### **Abstract**

The paper analyses the changes in relationship between the modern state and digital platforms by arguing that, over the last decade, a double movement is at stake: platforms have been undergoing a process of institutionalization, while states have been becoming-platforms in the attempt to compete for sovereign claims in the Cloud.

The analysis is carried out by critically interpreting the theoretical work of Californian philosopher Benjamin Bratton in his book *The Stack: On Software and Sovereignty*, in light of the following historical and political developments. In order to better contextualize his work, a presentation of one of his sources is added: J.C. Scott's book *Seeing like a State: How certain schemes to improve the human condition have failed*. The theoretical framework of Bratton – which aims at being a continental-style metanarrative for the digital revolution – provides an explanation for the transition from the idea of the 'rhizomatic network' of the Internet to proprietary platforms as medium of most interactions. Platforms rely on 'arborescent architectures' that are new forms of governance as well as a new broad-scale organizational model of the 21<sup>st</sup> century.

Finally, the case study of IO.it app – the experimental app for public services created by the Italian government during the Covid19 pandemic – is examined so as to demonstrate practical applications of state platformization, together with its criticalities and potentialities. The paper ends with the proposal to work towards the sociotechnical imaginary of a common Stack.

Plato knew that the bad statesman is he who believes that the art of measurement is universal, and who jumbles together what is greater or smaller and what is more fit to the purpose.

Ivan Illich

### **1. From rhizomatic networks to arborescent architectures**

The years 2010-2020 may be remembered as the decade of digital platforms. The very idea of the Internet as a liberating force, connecting people while democratizing peer-to-peer access to knowledge and communication has failed the proof of history. The cyberlibertarian ideology inherited by the counter-cultural movements and hippies' communalism (Turner 2006) indirectly paved the way for a few nodes to mediate most

digital information flows. In this regard, one famous idea proposed in 1992 by David Clarke went as follows: “We reject: kings, presidents, and voting. We believe in: rough consensus and running code” (Russel 2006: 48). Clarke advocated leaving behind traditional deliberative methods thanks to the new technical possibilities granted by computers, something that Lawrence Lessing described as “a manifesto that will define our generation” (Lessing 1999: 4). Another inspiring idea had been Perry Barlow’s “A Declaration of Independence of Cyberspace” (Barlow 1996), in which he dreamed of the disappearance of the state. In light of contemporary platformization, these now sound like nostalgic statements.

On the other side of the Atlantic, philosophers Deleuze and Guattari had predicted societies of control while proposing *lignes de fuite* in the non-hierarchical, heterogeneous, multiplicitous and acentered rhizome. (Deleuze & Guattari (1980) 2017: Introduction). At first sight, the rhizome seemed to be the right metaphor for the Internet, and critical theorists have often drawn from this notion when discussing its potential, highlighting its structural similarity (Hess 2008: 1). For those inspired by the novel *Neuromancer*, the idea was even to “merge with the network” (Soulellis 2017). And yet it is now clear that instead of this rhizomatic network, the Internet favored the emergence of what can be defined as “arborescent architectures”. As Evgenij Morozov put it, “1990s tech utopianism posited that networks weaken or replace hierarchies. In reality, networks amplify hierarchies and make them less visible” (Morozov 2017, Tweet). If celebrating the Net as the advent of Jeffersonian democracy (Barbrook & Cameron 2015) was a mistake, the question to be asked is the following: how did the Internet end up being mediated by an oligopoly of digital platforms that “rationalize the self-directed maneuvers of Users without necessarily superimposing predetermined hierarchies onto their interactions”? (Bratton 2015: 48) Clearly, this silent transition from organized networks to proprietary platforms did not happen by chance. At its base lies the performative discourse of digital platforms,<sup>1</sup> alongside the structural change in software architecture that made the platform ecosystem possible in the first place.

## 2. A philosophy of computation

It is here that we shall turn to the fruitful analysis of the Californian philosopher Benjamin Bratton, carried out in his book *The Stack: On Software and Sovereignty*. Bratton has never hidden his ambitious goal to create nothing less than a holistic philosophical system that might serve as a metanarrative for the digital revolution. He tries to accomplish this task by borrowing the term “stack” from the field of engineering and computer

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<sup>1</sup> The ‘platform discourse’ plays great importance for platform conceptualization, but is beyond the scope of this contribution. Gillespie (2010) has provided an initial account on the topic, while Steinberg (2019) has written the most complete genealogical analysis of platform conceptualization.

science; he turns it into what I would define as a theoretical framework to read the complexity of digital practices.<sup>2</sup>

From a Deleuzian standpoint, we may identify Bratton's philosophical problem as a *computational* problem. In a conference held in 2018, Bratton described his work as trying to make sense of what happened to human life after the invention of computers. He agreed with Donald Trump, who once declared that "the whole age of computer has made it where nobody knows what's going on" (Bratton 2018: 2:38). However, for Bratton this chaos is also due to the lack of a proper philosophical framework.<sup>3</sup> To better grasp the digital revolution, Bratton proposes to stop understanding "all the various forms of planetary-scaled computation — cloud computing, smart cities, ubiquitous computing, massive addressing systems, next-generation interfaces, nonhuman users, and so on — as different genres or species of computing, each spinning off on its own". Instead, we should think them as forming a coherent whole into a model that "locates them on layers of a consolidated metaplatform, an accidental megastructure" (Bratton 2015: 375). This megastructure<sup>4</sup> would be made of six layers on top of each other (in the same way that plates are stacked): Earth, Cloud, City, Address, Interface and User<sup>5</sup> (Bratton 2015: 66). The Stack is first of all a way to surpass the flatness of Westphalian geography, as it

refers to a transformation in the technical infrastructure of global systems, whereby planetary-scale computation has so thoroughly and fundamentally transformed the logics of political geography in its own image that it has produced new geographies and new territories that can enforce themselves. Unlike modern political geography, which divided up horizontal maps, Stack geography also vertically layers spaces on top of one another. (Bratton 2015: 375)

Since the history of computation of the last decade had found its major players in digital platforms and their software architectures, the core of Bratton's analysis is about these two topics. Bratton dedicates many pages to the birth of a "Platform Theory" that can keep up with the complexity of a concept so broad and entangled that it spreads across technical features, humanities and design.

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<sup>2</sup> As stated in the introduction to the book, Bratton tried to keep together three different fields: (continental) philosophy, software studies and architecture/design.

<sup>3</sup> It is interesting that the other attempt to construct a metanarrative of the digital revolution, Shosanna Zuboff's *The Age of Surveillance Capitalism*, denounced the lack in a similar fashion. According to Zuboff, new phenomena are being interpreted with old lenses, what she calls "horseless carriage syndrome" (Zuboff 2019: 211).

<sup>4</sup> As The Stack is basically an imaginary armature made of all electronic artifacts that envelopes the planet, Bratton understand it, in line with complexity theory, as an emergent order. Additionally, Bratton's desire to keep together all species of computation, as well as perpetually adding layers on each other, reminds one of Bruno Latour's principle of *irréductions*. For an examination of the notion of emergence, see Byrne & Callaghan (2014).

<sup>5</sup> To each layer is dedicated one chapter of the book. It is very useful to visualize The Stack in order to make sense of it (Bratton 2015: 66).

One first, sociological point that Bratton makes is about platform categorization. Even though a platform is traditionally (economically) understood as a firm participating in the market,<sup>6</sup> it cannot be reduced to that. Bratton considers the platform as a new and hybrid organizational form that has already reached the scale of a global institution.<sup>7</sup> According to him, the platform should be conceptualized

not only as a technical model but also as a new form of the 21<sup>st</sup> century besides states and markets but reducible to neither of them. Platforms are generative mechanisms, engines that set the terms of participation according to fixed protocols (e.g., technical, discursive, formal protocols) but gain size and strength by mediating unplanned and perhaps even unplannable interactions. (Bratton 2015: 374)

Platforms do not only participate in existing markets, but create multi-sided markets by enabling interactions between two or more groups (Rochet & Tirole 2003; Hagiu & Wright 2011; Gawer & Cusumano 2002). At the same time, platforms like Google or Amazon “have been absorbing traditional functions of States” (Bratton 2015: 313)<sup>8</sup> by providing services for the User/Citizen. According to Bratton, we witness how some “core mechanisms of governance on the ground become less like a central command machine and more like an ambient, generalized utility at hand for anyone interested in parsing the databases and spreadsheets and deploying them toward new designs” (Bratton 2015: 121). From the side of digital labor, we may add to these two similarities that platforms constitute a new paradigm of value creation. As pointed out – by Casilli, among others – according to the classic work of Ronald Coase the nature of the firm was to organize itself to eliminate some costs and therefore reduce production costs. But the rise of platforms – “boundary-less structures” that interact only with private contractors – signals that the border between the place of hierarchical security (the firm) and the place of free coordination through prices (the market) has dissolved<sup>9</sup> (Casilli 2020, 66-69).

Secondly, it is worth examining Bratton’s circular definition of a platform as

a standards-based technical-economic system that may simultaneously distribute in-

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<sup>6</sup> Platforms have been researched in several fields, including software studies, management, media studies, digital labor, infrastructure studies, and platform urbanism, to name a few.

<sup>7</sup> In this sense, the platform can also be considered a sort of (perverse) evolution of Manuel Castells’ “network enterprise”, and the platformization of the state an evolution of the “network state”. Castells already pointed out the dual fate of the state: on the one side, a loss a sovereign power; on the other, the state’s attempts to create new arrangements to which state institution continue to exercise influence over their citizens (Castells 2004: 303). Platformization is one of these attempts.

<sup>8</sup> This has further increased during the pandemic, when it became clear that digital platforms performed activities with a ‘public’ relevance: Amazon was delivering food and goods; Zoom, Skype and similar software allowed and mediated social interactions; Google and Microsoft allowed school education to continue, and so on.

<sup>9</sup> Every time the texts quoted had no available English translations, I have provided them.

terfaces into that system through their remote coordination and centralizes their integrated control through that same coordination. (Bratton 2015: 374)

For Bratton, a platform has the ability to interact with the user and use the data collected to re-program itself over time. In doing so, he uses the metaphor of the interface as a ‘membrane’, as the point of contact between the two complex systems of the platform and the user (Bratton 2015: 237). One can think about Google Maps, the perfect example of “declaration by dispossession” (Zuboff 2019: 209). Without asking for anyone’s permission, Google decided to map the entire world, sometimes by sending cars with cameras and other times by integrating “Google Trekkers” (human freelancers mapping remote locations) in the process. Afterwards, Google distributed the interface: millions of people downloaded the app and started to use it for free. Apart for the obvious fact that it allowed Google to collect more data, the point is that Google’s map works to make the map the territory.<sup>10</sup> The users delegate their movements to Google’s Map interface, which now coordinates most of the movement of the world population. The Interface Layer is thus the layer of the Stack that provide contact and communication. Nowadays, the most common genre of interface is the graphical user interface (GUI), which literally allows the user to make the algorithmic dimension intelligible. GUI is “an interactive visual diagram that presents a visually coherent image of otherwise discontinuous and opaque processes and flows” (Bratton 2015: 372). The power of the interface lies in its modularity and reversibility: every day, the code behind it can be changed, thus changing its visual representation. This in turn enables different interaction and behaviors in users. To put it simply, changing the interface means to act on the user by changing his experience of the platform: “Unlike other geographic projections, the interface is not only a visual representation of an aspirational totality; it is an image of a totality that when acted on also instrumentally affects the world” (Bratton 2015: 373). For Bratton, one of the crucial features of a platform is thus its structural reversibility (with constraint), as the platform can be reprogrammed. Bratton’s definition is also consistent, while adding some elements, to more recent definitions provided by European scholars for whom platforms are “re-programmable digital infrastructures that facilitate and shape personalized interactions among end-users and complementors, organized through the systematic collection, algorithmic processing, monetization, and circulation of data” (Poell & al 2019: 3).

Thirdly, Bratton considers platforms as central actor (or actant) of the geopolitical arena. Platforms are only partially under state jurisdiction; they are more like “*Cloud Polis*” that are “becoming *de facto* states” (Bratton 2015: 295) and that possess their own “platform sovereignty”. From a legal point of view, he investigates the pre-legal *nomos* of

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<sup>10</sup> “The map is not the territory” is a famous quote by Alfred Korzybski. It was used also by Gregory Bateson and, more recently, acquired centrality in the work of Nassim Taleb.

the Cloud<sup>11</sup> rather than the law of the platform, as digital platforms are usually outside of the control of the state and his possibilities of law enforcement. To compress Bratton's arguments at the price of oversimplification, Bratton claims that sovereignty is *produced*<sup>12</sup> by the platform organizational model, or at least that adopting that model is one way to compete in its production.

However, if one accepts this idea of the architectonical function of software, which designs the field of possibilities of politics, others logically follow. Recently, the European Union and single members states have been paying a lot of attention to “digital sovereignty”, paraphs paving the way for internet balkanization. In particular, states learned the importance of securing the digital infrastructure (Pohle & Thiel 2020: 8): the state cannot rely on an infrastructure made by a foreign company. It needs to find a way to control the flows in order to avoid data collection by a third party and, in the worst case, the risk that they turn off communications. The second part of Bratton's argument is thus rather pragmatic: if the platform model works, states are going to replicate it. It is therefore a double movement; platform institutionalization alongside a process of state platformization.

Platformization has been defined as “the penetration of the infrastructures, economic processes, and governmental frameworks of platforms in different economic sectors and spheres of life” and, in the tradition of cultural studies, the process can be conceived as “the reorganization of cultural practices and imaginations around platforms” (Poell & Al 2019: 5). In China, government-owned Apps like WeChat – the greatest case of ‘platform-world’ so far – has already absorbed most of the activities of Chinese citizens, and internet searches takes place within the app itself<sup>13</sup> (Pieranni 2020: 10). Platformization, together with the more known datafication (Van Dijck 2014), constitute the two elements of the same recursive feedback-loop process of extraction that historically originated in Google's search engines and which is best represented by the following motto: “Search needed people to learn from, and people needed Search to learn from” (Zuboff 2019: 70).

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<sup>11</sup> Bratton rightfully underlines the materiality of the Cloud, made of data centers, wires, satellites, etc. He follows Carl Schmitt by proposing a *spatial* interpretation of the Cloud. If for Schmitt the genealogy of modern politics had evolved from earth to sea and from sea to air, Bratton adds the Cloud as a new territory (Bratton 2015: 19). Also, it is not the case that platforms are considered political theologies in their Schmidian sense by both Bratton and Casilli.

<sup>12</sup> From a ‘European’ point of view, one may ask what kind of ‘sovereignty’ Bratton has in mind when referring to its production.

<sup>13</sup> Think of WeChat as a super-app made up of all the West's apps together, and more. WeChat ended up creating something like a self-sufficient ecosystem because it takes care of every aspect of daily life (Pieranni 2020: 11), becoming the historical memory of tastes, passions, ideas and inclinations of one billion people (Pieranni 2020: 25). Some of the activities that can be performed on the app are: checking the news, booking a taxi, checking the menu of a restaurant and paying the bill, sending and receiving QR codes for discounts, taking notes, sending messages, using maps, making online purchases, sending money and archiving information. WeChat automatically creates groups for real-life meetings; it splits the bill at the restaurant; it even allows you to pay taxes and make a doctors' appointment. Even the bureaucratic procedure for marriage and divorce starts on WeChat. Finally, beggars ask for money by showing their a QR code in some regions.

Nevertheless, Bratton does not only refer to the state as undertaking a process of platformization in order to borrow what I call, in a gamified sense, platform's "special abilities". He also claims, rightfully in my opinion, that this is changing what a state is. To further investigate this argument, we can now briefly sketch one of Bratton's sources, J.C. Scott book *Seeing like a State: How Certain Schemes to Improve the Human Condition Have Failed* (1999).

### 3. Seeing like a state and seeing like a platform: a new form of governance

At his core, Scott proposes an historical study of how the modern state – both in communist and capitalist countries – have imposed structures upon diverse social elements, from agriculture to city planning. The American sociologist had started to analyze several cases in which the centralized state wanted to intervene in a local context according to a plan. For instance, Scott looked at the historical need for the state to tax the population in a uniform way. The first problem which arose had been that of understanding the local context for taxation. For this purpose, the state had to elect some parameters for reading the local context. Scott claimed that from the point of view of the state – to "see" like a state – the primary goal is "to arrange the population in such a way that makes it simpler to tax people" something that Scotts calls "state projects of legibility and simplification" (Scott 1999, Cp. 1). From his distant point of view, the state can never know the exceptionally complex nature of "practical knowledge" – what Scott has in mind is the Greek *mètis* (Scott 1999: 311-341) – and thus always imposes a "radically simplified design of social organization and natural environment", which are forms of social engineering. For Scott, the state always had to create some standard maps and grids and apply them to read each local context.<sup>14</sup> These maps, however, are not neutral: like Bratton's interface, they are "maps that allied with state power would enable much of the reality to be remade" (Scott 1999: 3). To use Scott's words, "the utopian, immanent, and continually frustrated goal of the modern state is to reduce the chaotic, disorderly, constantly changing social reality beneath it to something more closely resembling the administrative grid of its observations" (Scott 1999: 82). He explains his idea with the useful comparison of the design of hives:

In premodern times the gathering of honey was a difficult affair. Even if bees were housed in straw hives, harvesting the honey usually meant driving off the bees and often destroying the colony. The arrangement of brood chambers and honey cells fol-

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<sup>14</sup> To support his thesis, Scotts brings along many well documented examples in different fields. Among others: the designs of cities like Brasilia and Le Corbusier's functionalist architecture (cp. 4); the design of scientific forestry and agriculture (cp. 8); the experience of soviet collectivization (cp. 6); the case of compulsory villagization in Tanzania (cp. 7) the creation of permanent last names; the creation of cadastral surveys and population registers; the organization of transportation.

lowed complex patterns that varied from hive to hive – patterns that did not allow for neat extractions. The modern beehive, in contrast, is designed to solve the beekeeper's problem. With a device called a “queen excluder,” it separates the brood chambers below from the honey supplies above, preventing the queen from laying eggs above a certain level. Furthermore, the wax cells are arranged neatly in vertical frames, nine or ten to a box, which enable the easy extraction of honey, wax, and propolis. Extraction is made possible by observing “bee space” – the precise distance between the frames that the bees will leave open as passages rather than bridging the frames by building intervening honeycomb. From the beekeeper's point of view, the modern hive is an orderly, “legible” hive allowing the beekeeper to inspect the condition of the colony and the queen, judge its honey production (by weight), enlarge or contract the size of the hive by standard units, move it to a new location, and, above all, extract just enough honey (in temperate climates) to ensure that the colony will overwinter successfully. (Scott 1998: 2-3)

With this book in mind,<sup>15</sup> Bratton can shift the perspective on digital platforms. We may say that the very idea of the six-layers megastructure of the Stack involves the question of *what the platform sees*. The eye of the Stack is provided by the fourth layer, the Address. As shown by Scott, the postal system has always been an essential parameter of legibility of the state and of modern cities:

The assignment of a unique postal address to a building gives it a certain legal, political identity as a public entity to which and from which messages can be sent, and the official enumeration of these identities by the state has been an essential feature of the political modernity of cities and a source of sovereign legitimacy for their governance. That legitimacy is enforced by maintaining the apparatus of postal identify for sites within the polis and securing the right to recognize and assign new identities with new addresses. (Bratton 2015: 193)

Bratton claims that instead of the “postal ontology of the State” (Bratton 2015: 132), digital platforms have IP address and other technical protocols that pursue an equivalent function. “Like a house connected to a postal system, any device that is connected to the Internet is assigned a discreet address (usually temporarily) to which information is sent and from which it is received” (Bratton 2015: 367). Therefore users – as well as any other entity perceived by the platform<sup>16</sup> – can be seen and followed thanks to these addressing regimes. But the shift of regime does more than “imprint[ing] identity onto an existing geography of things”. It is “a new regime of segmentation and organization [that] overhauls relations between what is enrolled within it, and does so regardless of whether it is organizing physical or virtual space” (Bratton 2015: 194). Again, it is a complex

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<sup>15</sup> Even though Bratton quotes *Seeing Like a State* only four times (8, 106, 120, 133), I believe that Scott's work played a central role in the development of Bratton's philosophy.

<sup>16</sup> Bratton is a reader of the philosophical currents aimed at decentering the human, such as Object Oriented Ontology and the non-anthropocentric thought.

ecological environment of platforms, states and material networks. With the advent of digital technologies and their architecture of governance, something has changed in the relationship between centralization and decentralization, and this shift carries huge consequences in the way “design”<sup>17</sup> and planning is conducted.

If only seventeen years before Scott could claim that “designed or planned social order is necessarily schematic; it always ignores essential features of any real, functioning social order” (Scott 1998: 6), Bratton convincingly shows the shift of digital technologies. The possibility to follow interaction (Address) and to act on them (Interface) has led to a mechanism that centralizes and decentralizes at the same time. To put it in its most simple form: centralization is achieved by providing the same standardized condition of entrance in the platform-world<sup>18</sup> – setting the stage and the rules of the game – while decentralization works by distributing interfaces (see *supra*). One of the most important points<sup>19</sup> about platforms identified by Bratton is that they “set the stage for actions to unfold through ordered emergence<sup>20</sup> as opposed to bureaucratic desired outcomes” (Bratton 2015: 47). Since this shift in the relationship between centralization and decentralization “radically complicate[s] any strong distinction between planned and markets economies”<sup>21</sup> (Bratton 2015: 375), the ontological change of the state passes through a change in the forms of its bureaucracy. For Bratton, bureaucratic planning used to operate by identifying a potential objective in the future (outcome) and then organizing the

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<sup>17</sup> Bratton is first of all a designer and design (“structuring of the world in reaction to an accelerated decay and in projective anticipation of a condition that is now only the ghostliest of a virtual present tense”) is the “real subject of the book” (Bratton 2015: 354). His proposal is a shift from *geophilosophy* to *geodesign* and The Stack is conceived in the spirit of speculative design.

<sup>18</sup> Since digital platforms have been borrowing many techniques from videogames – from dopamine reward circuitry to gamification (see *infra*) – it is useful to also understand the politics of platform as a video game. When playing something like *The Legend of Zelda*, there is no doubt that the player possesses an autonomous form of agency, as he can explore the world according to his will. However, the rules of the game are set by design. How high a certain character can jump, which weapons he can use and even the affordances of the world are not only already given, but digital platforms keep on changing them without user awareness.

<sup>19</sup> This is one out of seventeen points. What I have called “structural reversibility” is another. See pages 40-71 for the entire list.

<sup>20</sup> Bratton keeps together two meanings of emergence: the first, in line with complexity theory, as the emergence of properties at higher ontological levels; in the second, “state of emergency” as referring to sovereign claims in the philosophy of Schmitt (“Sovereign is he who decides on the state of exception”) and Agamben. A core mechanism of platform sovereignty is again the possibility to reverse the partition – to create temporary states of exceptions.

<sup>21</sup> Here Bratton is referring to the concept of catallaxy proposed by Friedrich Von Hayek and the Austrian School of Economics. A (reasonable) critique that Hayek used to make of planned economies was that in the market – a complex system *par excellence* – central planners could never know or process the real information exchange within an economy in such a way to properly set prices (Bratton 2015: 375). On the contrary, the “capitalist pricing problem” of market economies consisted in relying on market models that could “confuse the emergent effects of transaction liquidity with system planning and do so at the expense of artificially segregating and suppressing the real cost of near and long-term externalities” (Bratton 2015: 369). For the Californian author, computational platforms now constitute a form of “synthetic catallaxy”. Again, Bratton tries to make a conceptual update of key categories of the 20<sup>th</sup> century.

means to get there. Bureaucracies worked by

premodeling desired outcome and working back to codify interaction that would guarantee this: means are a function of ends. Platforms begin by fixing equally strict means but are strategically agnostic as to outcomes: ends are a function of means (Bratton 2015: 47).

The ideal platform creates generative mechanisms. It creates the condition for which the activities of the user make it thrive. Platforms “treat anomalies not only as errors but as signals of emergent patterns or norms for which some new positive accommodation may be required” (Bratton 2015: 50). In a process of endless adaptation and exaptation, the structural reversibility and re-programmability of the platform – its mobilization as an ever-changing Theseus’ ship – is allowed by the tracing of user interaction in the platform-world. Anomalies are encouraged<sup>22</sup> as the emergence of the new: “interpreted as errors [that] will not only update the model’s description of the whole, but [they] will also correct the rules by which future interactions are governed” (Bratton 2015: 50). The fact that each user sees its own reality - as in the case of filter bubbles and Cambridge Analytica ads – is another aspect of this form of governance. The platform, in fact, “governs one User differently than it does another” (Bratton 2015: 49).

Finally, there is another element that supports the idea of the platform as a form of governance. If one looks at history, the genealogy of platforms must start from states’ cybernetic attempts to regulate life through technology on the bases of worker-centered planning. Two notable cases, carried out mainly by socialist countries, are the Soviet Gosplan and the Chilean Project Cybersin.<sup>23</sup> The latter was an autopoietic “network [that] would have organized the entire Chilean economy according to, among other techniques, a twelve-layer concentric platform model” with a “decentralized and democratic” architecture (Bratton 2015: 58-59; Medina 2014). If these kinds of projects failed, both from historical contingency (the CIA *coup d’etat*) and a lack of computational capacity, their goal was achieved years later by the first digital platform: Google. Bratton coined the term “Google Grossraum”,<sup>24</sup> to refer to

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<sup>22</sup> Recall Steve Jobs’ words: “Stay hungry, stay foolish”.

<sup>23</sup> The union of ‘Cybernetics’ and ‘Sinergy’. Cybersin started in 1971 under the supervision of cyberneticians Sir Stafford Beer, who later on was highly influenced by the work of biologist/epistemologist Humberto Maturana and Francisco Varela. That the platform – as cybernetic machine – is a specific form of governance can be traced back to the etymology of cybernetic: ‘to steer, navigate or govern’. For the image of the art of government as piloting a vessel, see Foucault (2005: 325), for whom the three areas of curing, leading others, and governing oneself are bounded together: “The Prince, insofar as he must govern others, govern himself, and cure the ills of the city, of citizens and of himself, the person who governs himself as one governs a city, by curing his own ills; the doctor, who has to give his views not only on bodily ills but on the ills of the soul of individuals”. Again, to update the metaphor, we could say that now it is not only about governing the vessel according to conditions of the sea and wind; now, the forms and functions of the vessel can be changed on the way. For the history of cybernetics, see Rid (2016).

<sup>24</sup> The reference is again to the Grossraum as defined by Carl Schmitt.

the convergence of planned and market economies into computational platforms that share ideal and practical characteristics, and specifically to the genealogy of Google as inclusive of socialist and communist state attempts to use computing systems, primitive by today's standards, to model and coordinate their economies, sometimes with success and sometimes with disastrous effect. The term also implies that the future evolution of Cloud platforms that absorb traditional functions of states (such as Google, to a degree) may realize forms of effective economic governance that are recognizable as both minimal state and maximal state at once. It strongly suggests that there is no intrinsic relationship between infrastructural scale computation and neoliberal economies as they are conventionally understood (Bratton 2015: 372).

For Bratton, therefore, the platform is a form of governance driven by algorithmic mechanisms, something that he calls “algorithmic governance”<sup>25</sup>:

Like Foucault technologies, its mechanisms are not representative of governance, they *are* governance. But unlike Foucault's archeology, its primary means and interest are not human discourse and human bodies but the calculation of all the world's information and the world *as* information. (Bratton 2015: 8)

For Bratton, computation has become a general property of all apparatuses. The fact that the first rudimental platforms were state projects, plus the fact that they are intrinsically political forms of architectural and computational governance, leads Bratton to come up with what is arguably the most interesting of his new concepts, the “machine as a state”:

It is not the “state as a machine” (Weber) or the “state machine” (Althusser) or really even (only) the technologies of governance (Foucault) as much as it is the *machine as the state*. Its agglomeration of computing machines into platform systems not only reflects, manages, and enforces forms of sovereignty; it also generates them in the first place. (Bratton 2015: 373)

It is rather curious to look at Deleuze and Guattari's rhizome from this perspective. Platform mechanisms look like a perverse reification of their philosophies. At first glance

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<sup>25</sup> This is similar to Rouvroy's notion “algorithmic governmentality” (Rouvroy & Stigler 2016), even though the term “governance” originated as “corporate governance” and thus refers to the field of management rather than political philosophy. Other authors have instead used the term “algorithmic *aletheia*” to describe the circumstantial dimension for which truth is no longer the object of reflective knowledge, but enunciated by systems endowed with a power of expertise considered superior and destined to be exercised on any occasion, and which is no longer exposed to gestures of re-appropriation (Sadin 2019: 62). For Sadin it is truly a new phase of the history of normativity, which sees unprecedented mechanisms at work: that of taking shape within devices that act in an automated manner; that of being called to intervene in an increasing number of individual and collective actions; that of being attributed a presumably objective value (Sadin 2019: 76).

it appears that these “platforms of immanence” (Vignola 2017: 717) have “secularized *manu capitali*” (Vignola 2017: 707) concepts such as desire, creation, territorialization and nomadism – but not without paying the price of losing their critical derangement of traditional dichotomies.

#### 4. The state-as-a-platform: the case of IO.it<sup>26</sup>

If Bratton has a point, his theoretical framework can be used to interpret developments of contemporary politics. At the same time, these developments can prove the robustness of his thesis. In this regard, the case study of the Italian app IO.it seems to be a visible application of the logic of platformization.

In 2018, the Italian government started to plan its own form of digital transition. The project was preceded by a mapping of the online services used by Italian citizens, with the creation of a table showing the frequency of interactions within the public administration and the percentage of the population involved (FPA, 2021). Based on those needs, the public services app IO.it was developed to be the point of contact between citizens and institutions. As the Chief Officer of the Digital Transformation Team, Matteo De Santi, underlined in an interview:

This is a radical change: the citizens themselves are the ones who will have to use the app to tell us what to work on, which features to develop, to make it even closer to their needs. This is one of the reasons why we like to describe the IO project as 'a positive anomaly' in the Public Administration: for the first time in Italy, the development of a service follows innovative and participatory processes, typical of a startup. (FPA 2021, translation mine)

Even if one may ask what kind of bottom-up participation is “typical of a startup” rather than the abovementioned form of tracing, the announced goal is to reduce the gap between citizens and institutions and to implement Regulation (EU) 2018/1724 by establishing a single digital gateway to provide access to information, procedures, assistance, and problem-solving services. However, the first attempt to build the “Italian Stack” is not without potential criticisms.

A first risk may be related to the creation of indiscriminate citizen profiling. Many platforms' core business lies in profiling users and selling the possibility to modify their behavior to advertisers. The many recent scandals (i.e. Snowed and Cambridge Analytica) have made the public skeptical about the division between technical possibilities and legal guarantees. If the app allows by design the technical possibility to collect the data coming from the centralization of services, it will be very difficult to know if privacy laws

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<sup>26</sup> I would like to thank to Alessio Andriolo (from the Ippolita collective) for providing the original idea to investigate Cashback in relation to platformization.

such as the General Data Protection Regulation will be respected. Will the government respect, for instance, principles as data minimization and data deletion? Moreover, if the development of the next governmental steps depends on the data, not using available data would mean to slow down innovation. Confront the passage by De Santi with the tales of early employees of tech startups in the Silicon Valley, who used to call “God Mode” the possibility to access and visualize all data (Wiener 2020: 45):

Our bread and butter was engagement: actions that demonstrated the ways users were interacting with a product. [...] Engagement [...] was actionable. Engagement generated a feedback loop between the user and the company. User behavior could dictate product managers’ decisions. These insights would be fed back into an app or website, to dictate or predict subsequent user behavior. (Wiener 2020: 42)

A second risk is related to the moral and constitutional issues of using platform’s special abilities on citizens. A citizen as a subject granted with extended constitutional rights and guarantees is meant to overlap with that of the user. This transformation becomes particularly evident by looking at the way app IO.it was promoted: the cashback program. Designed by applying several platforms’ special abilities at once, cashback was launched on December the 8<sup>th</sup> 2020 in a situation characterized by the Covid-19 emergency; the state invested 4,7€ billion into it from 2021-2022 (PagellaPolitica 2021). There are two forms of cashback available.

The first form of cashback works by refunding 10% of the price of credit card payments on one condition: the person is 1) a resident of Italy, 2) over 18 years old and 3) owns an electronic identity or an electronic ID card endowed with a microchip and a PIN. In order to receive the refund, customers need to download the IO.it app and link it to their bank account. Moreover, the refund is a measure designed to avoid passing through commercial platforms, as it applies only to payments made in physical stores.

The second form, called “super-cashback”, works in addition to the first one. Since January first, 2021, the first 100,000 participants who have made the highest number of transactions with cards and payment apps registered for the purposes of the program, have received an additional gift of € 1.500,00 (IOBeta 2021).

We may summarize the many objectives pursued by the cashback in the following list: 1) incentivizing the use of traceable payments, thus avoiding tax evasion; 2) favor local shops as opposed to online shopping; 3) incentivizing the download of app IO.it and its linking to the bank account of the user. Nine million apps were downloaded (Il Sole24ore, 27.06.2021).

The app IO.it – the platform of public services – not only connects the public administration and citizens, but as a “plat-form” it is a space that allows two or more groups to interact, including developers and journalists.<sup>27</sup> A growing number of public entities can

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<sup>27</sup> It is interesting to note that in the website of IO.it journalists are visually deployed at the same level of

directly contact the citizens through the platform, including municipalities, regions, the revenue agency, the National Social Welfare Institution, the Italian Automobile Association, Ministry of Labor and Social Policies, Ministry of the Interior, Ministry of Health, Ministry of Economy and Finance (IoBeta 2021).

IO.it enables several digital services for citizens: receiving messages from public administrations with an archiving option; centralizing contacts for national and local public services; setting reminders of deadlines and updates with the possibility to enable alerts in personal calendars; completing payments for services and taxes with PagoPA, which is integrated in the app; receiving and storing official documents, receipts and certificates; and sharing preferences on desired services and means of contact. In order to show how platformization permeated in app IO.it and the cashback program, we may identify some of the platform's special abilities, otherwise called indicators of platformization.

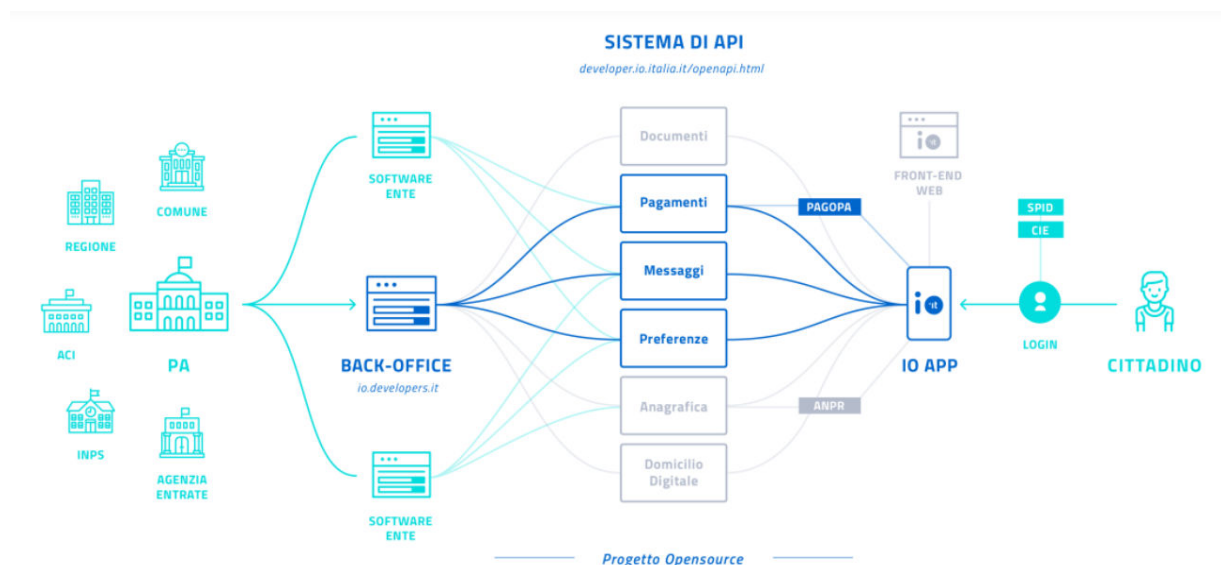


Figure 1. Visual representation of the IO.it platform. Screenshot taken from <https://io.italia.it/>.

A first indicator is that cashback can be considered a peculiar form of cross-subsidiarization, one of the most widespread strategies used by digital platforms. As platforms heavily rely on network effects, they “must deploy a range of tactics to ensure that more and more users come on board”. Cross-subsidiarization takes place when “one arm of the firm reduces the price of a service or good (even providing it for free), but another arm raises prices in order to make up for these losses” (Srnicek 2017: Ebook, Cp. 2). In the case of Google, while the user does not pay for most of the services, the platform raises money through its advertising arm. In the case of the IO.it app, the reward is not immediately economical in the short term, but is meant to enhance citizen engagement with public services generally. To achieve that, the platform must make sure that

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the others categories to be cross-subsidized: the discourse on platforms is an essential component of the platform itself. See <https://io.italia.it/> (“Il Progetto”).

citizens actually download the app, so the main goal of cashback is to incentivize the entrance into the platform-world. Once inside, there are no easy exits.<sup>28</sup>

A second indicator is the use of nudging. Defined as “any aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives” (Thaler 2014: 6), nudging is a form of design meant at maximizing some forms of behaviors. Also known in another version as “algorithmic nudging” (Möhlmann 2021), it is used to increase citizen engagement with the public administration without their awareness.

A third indicator is the possibility of the app personalization. Depending on the citizen's engagement with different services, the IO.it app is likely to interact with each citizen in a different way. The platform is meant to personalize the citizen experience, thus providing a single point of access for the public administration (the platform) which develops into as many points of contacts as active users, in a race towards mass personalization.

Finally, the most evident of the indicators is the use of gamification. Gamification is the inclusion of typical elements of competitive games (i.e. prizes, levels, rewards, accumulation of points, rankings) in contexts others than games (Ippolita 2017: 107). Gamified elements can be found both in the design of the IO.it app's interface, in Super-Cashback and in “IoVinco” and “IoPlus”. Super-Cashback is a crystal-clear example of complex gamification because it aims at embedding a competitive logic within the citizens/users of cashback, who are meant to make more transactions to get the final prize<sup>29</sup>. Other gamified example from the integrated Nexi payment service are “Io Vinco” - the digital version of the ‘scratch and win’ - and “Io Plus”, used to collect points that can be used for goods, music or travels<sup>30</sup>. Again, it is a normativity that offer rewards rather than punishment. It is a normativity without an ethical dimension: its axiology is not determined by personal or collective reflection but by the system itself. The citizen/user is the integral part of a hetero-directed environment with external goals. The user can only decide whether to continue the game pattern (pleasure) or stop it (lack of pleasure) (Ippolita 2017: 108-109).

Therefore, apart from the always present risk of surveillance – “if the reports are accurate, the veil between ad tech and state surveillance is very thin” (Wiener 2020: 127) – the risks underling state platformization are related to the replication of the elements that made the platform organizational model successful in the first place. What Gillespie has called the politics of platforms is precisely the fact that platforms have been working “discursively” to appear as neutral entities empowering users while actually putting

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<sup>28</sup> It should be noted that the app does make the life of the citizens easier - it saves time and provides better and faster payment. I therefore do not contest the usefulness and the innovation brought by the app, but the way it is designed and the manipulative rhetoric behind it.

<sup>29</sup> Super-Cashback also constitutes a form of financial discrimination favoring those with more spending power.

<sup>30</sup> Information retrieved by personal use of the app by the author on 09.08.2021.

them at work and exploiting their data (Gillespie 2010). Bratton writes of it as the shift from “the design *for* the User to the design *of* the User” (Bratton 2015: 285).

## 5. Towards the Common Stack?

What future-oriented conclusions can we draw from the double movement of state platformization and platform institutionalization? The rhizomatic network may be gone, but the reasons behind its formulation and its imaginative potential are not. The machine as a state relies on arborescent architectures that can be changed and rebuilt for and by everybody. In this sense, there are good reasons to believe that if digital platforms come and go, platformization as a logic is here to stay. It is going to take different forms in different environments, as the recent platformization of the care sector, sanitation and volunteering seems to suggest.<sup>31</sup> A world without Google can be imagined, but it is hard to imagine a world without the “platformization of everything”, to paraphrase a famous book on the topic.<sup>32</sup>

As a way forward, I would like to set out from the word responsibility. In the most common sense of *respondeo* (“*I answer*”), the etymology of responsibility is meant to be understood as accountability. Making platforms accountable seems to be the urgent goal of contemporary research on platform regulation. Shall we ‘open the infrastructural black-box’ in the attempt to redesign these architectures for the creation of smooth rather than striated spaces? In this case, the relationship between public values and technological design principles becomes central, together with the new institutional arrangements of its enforcement. Or is traditional policy enough, and, as with the industrial revolution, a considerable amount of time is all that’s needed in order to find a new societal balance? In any case, the regulatory momentum is intertwined with geopolitics, as Bratton has shown. The state – or that hybrid cultural and economic entity that the European Union is – would need to carry out serious monetary investments and take real political actions in order to create the conditions of possibility for an impactful regulation. Some more pessimistic authors would claim that this contradicts the logic of functional differentiation of social systems, and is therefore impossible.<sup>33</sup> There is no more government, only the emerging automaton of global governance.

And yet, on the other hand, responsibility can be understood as ‘*res-pondus*’ (“the weight of things”).<sup>34</sup> In this sense, responsibility is the paradigm of care, of feminist economics and of the need of “infrastructures of response-ability”, to build from Donna

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<sup>31</sup> See Athique & Parthasarathi (2020) and the work of the MICA Fem Lab at <https://femlab.co/team/>.

<sup>32</sup> Vaidhyanathan (2012) talked about the ‘Googolization of everything’ and why we should worry.

<sup>33</sup> I am here referring to the epistemology of Niklas Luhmann.

<sup>34</sup> The Italian economist Stefano Zamagni and the paradigm of civil economy. See Zamagni & Bruni (2017).

Haraway.<sup>35</sup> It is the (symbolic) search for a “third way” beyond American mercantilism and Chinese authoritarianism without civil rights: “Ni Zuckerberg, ni Xi Jinping” (Lovink 2022). Digital platforms as generative mechanisms have been used to achieve certain goals – optimization, profit, extraction – but can be built for other goals as well. It is in the intersection between digital platforms and care that I find the promise of the commons most valuable. The Stack as described by Bratton is an available structure for co-optation. As for the ecological crisis, the issue is that of the global scale and of the need to re-discover and co-design the global common of the digital infrastructure, a common Stack. To decide the ambient in which we live – which artifacts should surround us? – is a form of participation in global governance. In the attempt to foresee the political consequences of this global and local phenomenon with the lenses of platform urbanism (Hodson et Al 2020), I would say that the ultimate proposals move toward a more decentralized governance in which cities act as new *Pòlis*. The city may be better equipped to deal with issues such as the climate crisis and rules applicable for platforms – even if this would of course entail great changes in legal authority, competence and jurisdiction. In this sense, the proposal is to work towards a “stacktivism”<sup>36</sup>: “If there ever was a planetary mission, it is to design the Public Stack, dismantle monopolies, fight both state and corporate surveillance censorship and build infrastructures for all” (Lovink 2022).

## BIBLIOGRAPHY

- Athique, A.; Parthasarathi, V. (2020). *Platform Capitalism in India*. London-New York: Palgrave MacMillan.
- Barbrook, R; Cameron, A. (1995) “The Californian Ideology”. In Barbrook, R, & Cameron, A. (2015). *The Internet Revolution: From Dot-com Capitalism to Cybernetic Communism*. Amsterdam: Institute of Network Cultures.
- Barlow, J.P. (1996). “A Declaration of Indipendence of Cyberspace”. Available at <https://www.eff.org/it/cyberspace-independence>. Retrived on 02.08.2021.
- Byrne, D.; Callaghan, G. (2014). *Complexity Theory and the Social Sciences: The State of the Art*. New York: Routledge.
- Bratton, B. (2018). “An Update on The Stack. Project Bauhaus”. Available at <https://www.youtube.com/watch?v=QuEO-iTf4C4&t=1421s>. Retrived on 02.08.2021.
- Bratton, B. (2015). *The Stack: On Software and Sovereignty*. Cambridge: MIT Press.
- Casilli, A. (2020). *Schiavi del clic: perché lavoriamo tutti per il nuovo capitalismo?*. Milano:

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<sup>35</sup> Especially Haraway (2016).

<sup>36</sup> As reported by Lovink, the term stacktivism was arguably first used for an unconference in London in 2013 and defined as “a term that attempts to give form to a critical conversation and line of enquiry around infrastructure”. See <https://stacktivism.com/unconferenceme>.

Feltrinelli.

- Castells, M. (2004). *The Power of Identity*. 2<sup>nd</sup> edn. Oxford-Cambridge: Blackwell.
- Deleuze, G., Guattari, F. (2017). *Mille Piani: capitalismo e schizofrenia*. Napoli-Salerno: Orthotes.
- Foucault, M. (2005). *The hermeneutics of the subject: lectures at the College de France, 1981-1982*. London-New York: Palgrave MacMillan.
- FPA. (2021). "Cittadinanza digitale. App IO: ecco cos'è e come funziona". Available at <https://www.forumpa.it/pa-digitale/servizi-digitali/cittadinanza-digitale-arriva-lapp-io-ecco-cose-e-come-funziona/>. Retrived on 02.03.2021.
- Gawer, A.; Cusumano, M. (2002). *Platform Leadership: How Intel, Microsoft, and Cisco Drive Industry Innovation*. Boston: Harvard Business Review Press.
- Gillespie, T. (2010). "The politics of 'platforms'." *New media & society*. 12(3).
- Hagi, A.; Wright, J. (2011). "Multi-Sided Platforms". *International Journal of Industrial Organization*.
- Haraway, D. (2016). *Staying With the Trouble: Making kin in the Chthulucene*. Durham: Duke University Press.
- Hess, A. (2008). "Reconsidering the Rhizome: A Textual Analysis of Web Search Engines as Gatekeepers of the Internet". In Spink, A., & Zimmer, M. (eds). *Web Search. Information Science and Knowledge Management*. Vol 14. Berlin: Springer.
- Hodson, M., Kasmire, J., McMeekin, A., Stehlin, J., & Ward, K. (eds.). (2020). *Urban Platforms and the Future City: Transformations in Infrastructure, Governance, Knowledge and Everyday Life*. London-New York: Routledge.
- Il Sole 24ore. (2021). "Cashback, con quasi 9 milioni di registrazioni si chiude il 1° semestre 2021", 27 giugno 2021. Available at <https://www.ilsole24ore.com/art/cashback-quasi-9-milioni-registrazioni-si-chiude-1-semestre-2021-AEXQRKT>. Retrived on 26.08.2021.
- IO.it. (2021). "Guida al Cashback". Available at <https://io.italia.it/cashback/>. Retrived on 26.08.2021.
- Ippolita. (2017). *Tecnologie del dominio: lessico minimo di autodifesa digitale*. Milano: Meltemi.
- Turner, F. (2006). *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism*. Chicago: The University of Chicago Press.
- Lessig, L. (1999). *Code and Other Laws of Cyberspace*. New York: Basic Books.
- Lovink, G. (2022). *Stuck on the Platform*. Amsterdam: Valiz Publishers.
- Medina, E. (2011). *Cybernetic Revolutionaries: Technology and Politics in Allende's Chile*. Cambridge: MIT Press.
- Möhlmann, M. (2021). "Algorithmic Nudges Don't Have to Be Unethical". *Harvard Business Review*. Available at <https://hbr.org/2021/04/algorithmic-nudges-dont-have-to-be-unethical>. Retrieved on 26.08.2021.
- Morozov, E. (2017). Twitter, July 11, 2017.

- Pagella Politica. (2021). "Con il cashback lo Stato ci guadagna o ci perde? È presto per dirlo". Available at <https://pagellapolitica.it/blog/show/1042/con-il-cashback-lo-stato-ci-guadagna-o-ci-perde-%C3%A8-presto-per-dirlo>. Retrived on 26.08.2021.
- Pieranni, S. (2020). *Red Mirror: il nostro futuro si scrive in Cina*. Roma-Bari: Laterza.
- Poell, T., Nieborg, D., & Van Dijck, J. (2019). "Platformisation". *Internet Policy Review*, Vol. 8(4).
- Pohle, J., & Thiel, T. (2020). "Digital sovereignty". *Internet Policy Review*, Vol. 9(4).
- Rid, T. (2016). "Rise of the Machines: A Cybernetic History". New York: Norton.
- Rouvroy, A., & Stiegler, B. (2016). "The Digital Regime of Truth: From the Algorithmic Governmentality to a New Rule of Law". *La Deleuziana*, Vol 3.
- Rochet, J., & Tirole, J. (2003). "Platform Competition in Two-Sided Markets". *Journal of the European Economic Association* 1, no. 4, 990–1029.
- Russel, A. (2006). "'Rough Consensus and Running Code' and the Internet-OSI Standards War". *IEEE Annals of the History of Computing*. IEEE Computer Society.
- Sadin, E. (2019). *Critica della ragione artificiale: una difesa dell'umanità*. Roma: Luiss University Press.
- Soulellis, P. (2017). "Merging with the Network. Rhizome". Available at: <https://rhizome.org/editorial/2017/oct/04/merging-with-the-network/>.
- Srnicek, N. (2017). *Platform capitalism*. Cambridge: Polity Press (Ebook).
- Scott, J.C. (1998). *Seeing like a State: How certain schemes to improve the human condition have failed*. New Haven-London: Yale University Press.
- Thaler, R. H., & Sunstein, C. R. (2008). *Nudge: Improving Decisions about Health, Wealth, and Happiness*. New Haven-London: Yale University Press.
- Vaidhyathan, S. (2012). *The Googlization of Everything (And Why We Should Worry)*. Berkley: University of California Press.
- Van Dijck, J. (2014). "Datafication, dataism and dataveillance: Big Data between scientific paradigm and ideology". *Surveillance & Society*, Vol 12(2).
- Vignola, P. (2017). "Questo non è un piano". In Deleuze, G., & Guattari, F. (2017). *Mille Piani: capitalismo e schizofrenia*. Napoli-Salerno: Orthotes.
- Wiener, A. (2020). *Uncanny Valley: Seduction and Disillusionment in San Francisco's Startup Scene*. London: Harper Collins.
- Zamagni, S., & Bruni, L. (2017). *Civil Economy: Another Idea of the Market*. Newcastle: Agenda Publishing.
- Zuboff, S. (2019). *The age of surveillance capitalism: the fight for a human future at the new frontier of power*. New York Public Affairs.