THE TRANSFORMATION OF THE STATE AND PUBLIC MANAGEMENT DURING THE POST-PANDEMIC DIGITAL REVOLUTION: FROM TAYLOR TO GOOGLE

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ABSTRACT: The developed organization and management models that result from industrial revolutions have a direct influence over state and administrative structures and the development of their public policies. The moments of crisis allow an acceleration of transformations. This proves the relationships between Taylorism, Fordism and bureaucracy, Toyotaism and the New Public Management and, finally, the influence of the digital revolution, led by Google, which the pandemic crisis has accelerated in the ongoing transformation of state organization models and public management. The article concludes with a comparative presentation of these three models of State: bureaucratic, matrix and platform, with their respective characteristical conceptions of public intervention: direct, indirect and 'intelligent'.

Keywords: *bureaucracy, New Public Management, neoliberalism, neoinstitutionalism, toyotism*

Aside from being unexpected and contingent ruptures, crises also accelerate trends. The health crisis caused by the COVID-19 virus can thus be considered as a powerful accelerator of transformation for the paradigmatic management model of organizations and, furthermore, of collective action in general –a transformation that was already underway. In the context of modernity, it can be observed that the management models of the current dominating industries

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acquire a paradigmatic character that is transferred to the public sector after certain adaptations. All throughout the 20th century, this phenomenon could already be observed on two instances. The first one occurred with the development of Taylorism and Fordism at the beginning of the 20th century, whose accelerating crisis was the First World War. In the public sector, this organizational and management model corresponded to the development of a State and a bureaucratic administrative model. The second transformation began with the cultural and socioeconomic crisis expressed by the protests of May 68 and the oil shock of 1973. This double crisis accelerated the replacement of the industrial bureaucratic model (Perrow, 1992) by a new organizational and management model inspired, to a large extent, by the successful experience developed by the Japanese automotive company Toyota as a headquarter company. The adaptation of this model to the public sector was implemented under the name *New Public Management* (NPM). Currently, with the consequences of the health crisis caused by the global pandemic of COVID-19, this latest model is evolving towards a new one that takes up the organizational characteristics developed by the new dominant digital industry, particularly represented by Google, a company whose growth in recent decades has left the traditional automotive industry far behind as a benchmark for economic growth[1].

Thus, after the period of the 20th Century dominated by Fordism, during its first three quarters, and then by Toyotaism, during its final decades, the progressive replacement of the automotive industry by the data industry as the dominant one during the final decade of the 20th Century, placed the organization and management principles developed by Google as the main managerial reference. Thus, 'Google-ism' is emerging as the new management paradigm in the public sector as well.

TAYLOR, FORD, AND THE BUREAUCRATIC STATE

In terms of a management model or doctrine, the First World War allowed the 'Taylor system' to establish itself as the dominant paradigmatic organizational model. The need to rapidly increase industrial productivity in order to respond the demands of the war facilitated the reduction of social and legal resistance to the new scientific organization of work proposed by this engineer and its

1 The data technology-based industry currently ranks 8 of the top 10 companies by market capitalization (March 1, 2021). Toyota was relegated to 33rd place and, significantly, the leader in the automotive industry is now the company with a strong technology component Tesla (8th position). The top 10 companies, from highest to lowest, are: Apple, Aramco (oil), Microsoft, Amazon, Alphabet (Google), Tencent, Facebook, Tesla, Alibaba, Berkshire Hathaway (financial services). Source: https://economipedia.com/ranking/empresas-mas-grandes-del-mundo-2021.html. Accessed June 14, 2021.

subsequent adaptations. With Taylor's contributions to production models, those of Fayol in general management and administration, and those of Weber in public administration, the classical modern administrative paradigm –based on the idea of the superiority of rational calculus and of the military type of organization for achieving maximum effectiveness and efficiency– prevailed in all organizational areas along with the characteristic elements that derive from its implementation: centralization, hierarchy, formalization, standardization and specialization (Perrow, 1992, pp. 32-33). This organizational model was particularly well adapted for allowing the mass production developed by Henri Ford's new automotive industry. The success achieved by this still expanding industry then served as a general model for the organization and management of all work activities –including the public sector.

From industry to politics, including organizations from civil society, the pursuit of greater effectiveness and efficiency through the implementation of these principles of modern scientific management will lead to a significant increase in productivity in all sectors based on the specialization and professionalization of work. The development of professionalization, which was particularly vigorous after World War II, the golden age of Fordism, will in turn feed work dynamics towards a greater specialization of tasks (Fischer, 2009). This industrial bureaucratic paradigm (Perrow, 1992), based on command-control authority relations, and through instruments of direct cooperation (*hardpolicy*), will continue to develop until the 1970s in the western capitalist countries and, in the socialist countries, until the implosion of the Soviet system by the end of the eighties. It was the time of the great mass organizations: factories, administrations and 'fortress' organizations that, in on a same place, gathered thousands of members assigned to carry out an increasingly specialized part of the production or administrative process. However, its development also meant a constant growth of coordination administrative and control tasks that resulted in a cost increase and a decrease in overall efficiency.

THE MATRIX STATE, THE NEW PUBLIC MANAGEMENT AND GOVERNANCE

A new stage in the search for greater efficiency developed as a result of the social and cultural crisis of 68 and of the subsequent economic crisis of the 1970s and 1980s that both served as accelerators of change. These crises mark the exhaustion of the Fordist production process, and of its Keynesian political and socio-economic framework, or of the import substitution strategy

in the case of Latin America, based on the large, private and public, planning bureaucratic organizations registered in a national framework. The criticism towards consumer society and its process of massification and sociocultural homogenization produced by industrial bureaucratization led to an aspiration to recognize social and individual diversity on the one hand and, on the other, that large organizations, as well as their homogenous public and private regulation, appear as an obstacle for the freedom of both individuals and businesses and as a brake on innovation (Mises, 2005). The growth of bureaucratic regulation exercised by the modern State thus echoed the thesis that heralded that these would inevitably lead humanity towards servitude and totalitarianism (Hayek, 1944).

In response to these crises, a new production management model emerged as a solution to bureaucratic expansionism: Toyotism. Unlike the bureaucratic model, this management model did not focus on hierarchical command-control and the planned supply of services, products and controls predefined by large organizations, but on the demand expressed by customers through indications on the market and a continuous improvement strategy to eliminate waste of all kinds throughout the production and management process. Known as the Five Zeros technique (zero defects, zero breakdowns, zero bureaucracy, zero deadlines and zero stock), Just-in-Time, teamwork and outsourcing, the Toyota model was constituted in a new organizational paradigm: thus we went from the 'fortress' factory, with its thousands of direct employees, to the 'diffuse' or 'fluid' factory made up of a swarm of smaller companies formally independent, but in a position of great economic dependence to a parent company (Bihr, 1990). The intention of this model was to move from domination through the privileged use of instruments of direct coercion or the use of force (norms that prohibit and authorize behavior, *hard policy*), to instruments of indirect coercion, through economic (market), social and psychological incitements (*soft policy*).

With this, large companies were fragmented into a multitude of small autonomous ones that depended on parent companies. In this system, productive integration was no longer carried out through the coordination and control that bureaucratic hierarchy exercised over workers hired directly by the company, but through economic pressures that the market exerted both on small and medium-sized companies, and on independent workers (e.g. statutes of independent entrepreneurs or sole proprietorship). Domination, that is, the willingness to obey, previously obtained mainly by authority and its bureaucratic regulations (*hard power*), is now articulated with another source of indirect domination exercised, as far as possible, by the economic laws of the market and the social pressure within the group of workers (*soft power*).

This new strategy of business organization was conceptualized particularly with the development of the main-agent theory (Ross, 1973). Just as the reflection of the times in organization theory indicates, this new operating mode of the matrix type sought to combine the advantages of functional organization and of organization by projects (Galbraith, 1971; Grimes et al., 1972). The main characteristics of Toyotism can thus be synthesized

> working in groups, in the 'just in time' system (which implies the abandonment of standardized mass production to focus instead on the diversification of the offer by focusing on the tastes and needs of the clients), total quality control, the search for continuous improvement of production and functional versatility, which would put aside the technical and social division of work inherent to the (Fordist) system. (Zuccarino, 2012, p. 202)

The success obtained by the development of the diffuse factory system and its matrix organization in the industry were, in our opinion, a central source of inspiration and legitimation for transferring these ideas to the public sector, from the eighties and on, under the name of *New Public Management* (NPM). This legitimized outsourcing, or outsourcing of administrative tasks, for the execution of public policies and programs. These tasks were fragmented into projects contracted externally by the government. Similar to the role played by parent companies in private industry, public action was divided into a multitude of specific tasks carried out through projects contractually executed by private companies, non-governmental organizations (NGOs) or other entities under a logic of competition for resources through the creation of a new market within the public sector and the organization of its suppliers. In this way, it has been seen, particularly in Latin America, how numerous NGOs were created specifically to carry out public tasks through projects, then becoming dependent on public contracting, that is, on a government that became 'parent' to maintain its activities and its staff.

Progressively, public administration began focusing its work more on the management and control of projects than on the formulation and execution of public policies and programs. This is the very meaning of the letter of recommendations made by CLAD (1998), under the name of *A new public management for Latin America*, which attempted to synthesize or hybridize between the commercialization of the State and a reduction of this practice, and its redefinition or bureaucratic (re)construction. In this way, it can be said that we went from a 'fortress' public administration to a 'diffuse' or fragmented administration; from a bureaucratic state or government to one of a matrix type.

Barzelay (1998) considered this new organizational configuration as 'post-bureaucratic'. While in the classical modern bureaucracy, the specialized elements are functionally integrated through strict compliance with the regulations written by each of its officials, in the post-bureaucratic *New Public Management* (NPM), the performance and functional integration of tasks is achieved through economic incentives to autonomous agents (individual or collective) mainly motivated mainly by money (*homo economicus*). In the public sector, whenever outsourcing was not possible, the transformation of productive or administrative units into cost centers also tended to reduce costs and favor labor flexibilization. Officials began assuming tasks beyond the usual manual of individual functions to the extent that the group of employees began being considered as collectively responsible for their results as a unit. Thus, pressure is generated on the individual for limiting their absenteeism at work.

It is worth noting that, generally, these 'industrial' parallels are rarely pointed out by the academic literature on the transformation of public administration. In a reference article, Hood (1991, pp. 5-6) indicates that the *New Public Management* has its beginnings in the marriage between the neo-institutional economics developed in the 1970s (theories of public choice and of the costs of transactions and of the main-agent), and a succession of business-type waves in management within the public sector (managerialism) without further clarification.

The diffuse or fluid public administration, which we have called here of a matrix type, corresponds to what Christensen and Laeger (2005, p. 557) have called a lighter and more fragmented state. With this reform, with the government acting as a 'company headquarters', the intention was to limit the size and reduce the cost of public administrations by contracting private entities to carry out large part of administrative and execution tasks, especially in relation to the delivery of public services. However, according to these two authors, it is necessary to specify that this is a 'main panorama', (since) there is a considerable degree of national variation, product of the differences in the existing structural apparatuses before the reform and of the traditions historical-cultural. Just as the subtitle of a pro NPM book in vogue announced, it was necessary to 'reinvent the government' by putting it under the influence of entrepreneurship (Osborne, Gaebler, 2002), extending the implementation of a market logic as far as possible.

As a corollary, the implementation of the NPM had, at a political level, a change in the way of directing the behaviors of actors and a greater participation of these in the political decision-making bodies. Collaboration between the public and private sectors for the execution of government objectives

then meant a new way of governing. Thus, on the one hand, new techniques of orientation of behavior based on incitements (neoliberalism and neo-institutionalism) were progressively developed and, on the other hand, the issue of governance reappeared, as shared government or co-government, thus legitimizing a co-responsibility and a co-participation between actors from both government and civil society in decision-making processes.

FROM THE NEOLIBERAL RETIREMENT OF THE STATE TOWARDS ITS NEOINSTITUTIONAL RETURN

The dynamics induced by this matrix-type State, initially neoliberal, on the one hand, soon led to adverse economic, environmental and social consequences and, on the other hand, and particularly in the case of Latin America, it faced the persistence of cultural traditions.

Thus, in the first place, neoliberal deregulation policies, and their globalization, implied the withdrawal of the State from many spheres of intervention and regulation and ultimately led to the outbreak of a series of sectoral crises. Thus, first, the financial crises of the Asian (1997) and Argentinian (1998-2002) peripheries occurred, aggravated by the liberalization of the financial sector prescribed by international financial organizations (World Bank, International Monetary Fund). Subsequently, a global security crisis was detonated by the terrorist attacks of September 11, 2001 in the US. Then, again in 2008, a financial crisis, that of the 'subprime', started, this time, from the financial center of the United States and affecting the whole world. Meanwhile, with a succession of climatic events such as droughts, fires, tornadoes, rains, etc. that were out of the usual, the climate crisis was evident, leading to the signing of the international treaty known as the Paris Agreement of 2015, committing the States to take measures to drastically stop the emission of CO_2 as responsible for global warming. As a whole, these crises forced a reinforcement or a progressive return of State interventionism in these sectors, although with instruments of intervention that were different from those of the bureaucratic era.

Instead of an imperative bureaucratic regulation, this will be done from incitement from a perspective based on the neo-institutionalist theory. With this, it is intended to design more inciting rather than imperative norms to guide the behavior of the actors (considered as rational towards the achievement of public policy objectives (see Roth, 2014)). An emblematic example of these interventions based on neo-institutionalist theory were conditional cash transfer policies in Latin America, which were offered to poor families on the condition

that children met school and health requirements. It should be noted that these mechanisms have been implemented by governments classified both as right and left.

The 2008 *subprime* crisis also allowed to expand and consolidate the neo-institutional theory with the development of its branch of behavioral economics. With the study of the psychological mechanisms at work at the moment of decision-making by economic actors, Sunstein and Thaler (2008) developed the theory of *nudges*, thus showing the potential of psychological promptings to achieve a change in the behavior of the citizens that were the target of public policies. The experiments in behavioral economics thus opened the way to designing public policies that integrate economic and rational incentives with social and psychological ones. With this, the toolbox of inciting neo-institutional regulations is expanded towards the use of techniques that oscillate between affectionate incitements and psychological manipulation in a clear resurgence of a neo-behaviorist perspective.

Although each of these crises showed the possibility and need for greater regulations and public interventions in different sectors, the 2020 health crisis, due to its multisectoral, systemic consequences, ended up being the great accelerator of the paradigm shift towards the digital transformation of private and public management. This summation of crises then calls for a redefinition of the role of the State and its forms of organization and intervention.

In second term, in the case of Latin America, the managerial paradigm of the NPM also faced resistance from the cultural traditions of patrimonialism and clientelism. The persistence of these behaviors has been considered an important factor that prevented the long-awaited modernization of the State (see Torres, 2008). We believe that, rather, the fragmentation of public actions and the multiplication of public contracts ended up offering more opportunities to reaffirm patronage control and corruption over segments of the public administrative apparatus and over its personnel in even more precarious situations. Furthermore, it extended its bureaucratic nature and its operation in stalemate through a meticulous legal formalism. By adopting NPM-type reforms, the Latin American public administration did not leave behind previous traditions, but rather evolved towards a somewhat baroque overlap, hybridization or mixture of different administrative traditions, practices and principles (patrimonial, bureaucratic and managerial) and even contradictory at core.

THE RESURGENCE OF GOVERNANCE

Governance and 'good government' or 'good governance' are concepts that come from European medieval times to characterize a form of government shared between several relatively autonomous actors, particularly between the feudal estates, the nobility and the Church. Its resurgence in contemporary times accounts for a 'transformation in the matrix of relations between the State and civil society' (Graña, 2005), indicating a change in the balance of powers between the state authority and other civil society organizations. The concept means a mode of management or governance of public affairs shared and assumed as such between different actors: State, non-State and private, within the framework of the process of globalization that has tended to erase the boundaries between public and private, between National and international. It is a reflection of the interdependence of a plurality of actors in terms of the resources, capacities, information and data necessary to share in order to govern 'well'. Governance –with its multiple definitions and in association with the idea of a greater horizontality and a more participatory democracy– moved from the multilateral political sphere of international institutions to the national and local levels (Aguilar, 2006; Arellano et al., 2014).

Governance favors a representation of collaborative or networked power, as opposed to a pyramidal and vertical representation of modern state power and its bureaucratic model. The concept also allows to articulate and legitimize the new post-bureaucratic relationships established by the NPM between public, semi-public and private organizations, particularly marking the loss of the government's ability to impose its authority over society with the mere deployment of its administrative arm. As Kooiman (1993) points out, governance consists of establishing new government structures and capacities that are derived "from the interaction of a multiplicity of influential actors" (Subirats, 2015, p. 130).

The evolution towards a form of matrix State is then characterized by a certain diversity in terms of the configuration and content of the collaboration that must be established between the government and the market, between state domination and domination by private actors. Hence, governance will have different configurations according to specific situations: from governance in the form of an open network with many participating actors to governance of a corporatist or authoritarian type composed of two or three dominant actors in the intervention sector. Thus, the role of the very same State can vary along a continuum between a monopolistic position of maximum domination, to a position that is absolutely dominated as a function of the different resources available and mobilized by the actors belonging to the network of the specific

field where governance is exercised. Theoretically, it was intended to establish an intermediary path, a third path, between the bureaucratic regulation of social and individual behaviors and their regulation by the market or by the main actors active within it (Blair, 1998; Giddens, 1999). During the 1990s, the logic of the market was triumphant and gained ground everywhere. However, with the succession of the aforementioned crises, from the new century and on, government regulation gradually regained ground, retaking spaces of regulatory influence through renewed modalities of interventions of a neo-institutionalist type.

Ultimately, the concept of governance was particularly well adapted to the development of digital technology. It actually allows more horizontal communication modes, with less hierarchy and with multiple actors simultaneously. Thanks to this technology, it was then sought to build a governance capable of correcting and more efficiently solving the coordination problems resulting from the fragmentation and dispersion of public actions. Coordination through the technological system in turn provokes a process of recentralization of decision-making, and makes it possible to reduce the work of intermediation. This situation also extends to trade unions and political parties, and clearly to the public administration as an intermediary institution between government and citizens.

In conclusion, as of the new century, the combination of interventions of the neo-institutionalist type, complemented by the nudges of behavioral economics, on the one hand, and the return of the State, on the other, led to a substantial evolution of the structure and substance of governance in an increasingly behavioral perspective. The matrix State and the principles of the NPM, initially focused on the prioritization of the market, were evolving towards a greater government activity, which has been described as being a post-NPM process (Christensen, Laegreid, 2007). This growing interventionism by the State was concretized with the development of the reformist movement called the *whole-of-government* or public governance. The whole-of-government thus seeks to generate a process of greater coordination and integration that implies a recentralization of decision-making power in favor of the government actor (Christensen, Laegreid, 2007; Chica, Salazar, 2021; Mariñez, 2021) which, in turn, is endowed with new inciting instruments to influence human behavior.

THE HEALTH CRISIS AS AN ACCELERATION FACTOR OF THE DIGITAL TRANSFORMATION

In 2020, the outbreak of the COVID-19 health crisis, with all of its systemic consequences, revealed the fragility of all health systems that were optimized by the application of the NPM management principles and guided by measures taken from the neo-institutional toolbox. All of these systems came to the brink of collapse in many countries due to the little installed capacity for prevention against a pandemic event: there is no epidemic demand on the market! (Roth, 2021).

In almost all countries, the health crisis forced the State to implement a multisectoral intervention in order to coordinate the fight against the pandemic and mitigate its devastating economic and social effects. The confinement and social isolation measures taken to prevent the spread of the COVID-19 virus, extraordinarily favored the expansion of the digital industry. Particularly, administrative, private and public activities –that were already widely digitized– were transferred en *masse* from the offices to the private homes of their employees. The towering office buildings were completely emptied. This crisis had consequences for the digital industry similar to those that the conflagration of World War I had for Taylorism. In a few days, all social, cultural and legal resistance to teleworking –which was seen until that moment even with a certain strangeness and marginality– were overcome.

While it is true that the administrative function had previously resisted the post-bureaucratic Taylorist and matrix industrial rationalizations, the transformation of physical documented information into digital information allows a significant rationalization leap to be made in this sector. The pandemic allowed the possibilities of telecommuting on a large scale to be explored in unexpected ways and never dreamed of by the digital industry. Through digital network technology, most if not all of the administrative tasks can be carried out from anywhere connected to the internet. Digital technology makes it possible to finally break with the idea of an office. Particularly for the public sector, large administrations, with their numerous jobs gathered in one place, can be drastically reduced by teleworking their officials, thus generating lower physical infrastructure costs. Administrative teleworking, with a redefinition of the division of labor and other adaptations, deepens the individualization and dematerialization of work, breaks the labor collective, while the function of hierarchical surveillance and control can be exercised in a non-face-to-face way in a virtual manner or, even, through an automated digital form using algorithms. If Toyotism favored indirect (soft) regulation using market mechanisms and instruments of social and psychological pressure, digitization

aims to complement these with the development of 'smart' regulation through the use of data on the network.

And precisely, since the nineties, the final decade of the XX century, the development of a new industry based on information and data was already underway, particularly with the famous GAFAM companies (Google, Amazon, Facebook, Apple, Microsoft) and their innovative and dynamic start-up environments or ecosystems. The crises of 2008 and 2020 were decisive for this new industry's growth and influence. The use of data, and particularly of the possibilities offered by the use of big data, allowed these companies (Google in particular), with their organization on the platform and their use of artificial intelligence, to impose themselves as a new model of business organization and management, of which some elements are now being transferred to the public sector and redefining the model of the State.

GOOGLE AND THE STATE AS PLATFORMS

Similarly to the previous transformation that made it possible to replace the fortress factory with the diffuse factory, today, digital technology allows the 'toyotization' of public administration. Thus, the replacement of traditional public administration, still mostly organized as a fortress (ministries, etc.), by diffuse or pulverized public administration is envisioned. Digitization allows the administration to explode in a multitude of administrative work plots interconnected by the internet. In this way, administrative work can be carried out from anywhere on the planet, without the need for a physical meeting. The tasks of direction, coordination and control of administrative work are carried out through digital technology from a central point, similar to the matrix type. However, unlike the traditional parent company limited to a specific activity sector, digital companies can develop their data processing activities in all type of sectors and all over the world since all organizations have administrative tasks to fulfill.

In this way, the organization model is more like a platform, an inescapable interconnection hub for any company due to its technological dependence in relation to its information systems. Like a Swiss army knife, each tool or company is independent, but is hopelessly tied to, and dependent on, a single platform (Girard, 2008). Thus on the organizational level, the 'platform' system is a deepening of the matrix logic due to its extension to all administrative tasks. In turn, the Google platform company has developed management principles that constitute, according to Girard (2008), a revolutionary model that would be applicable to any other company. The author thus highlights

a dozen novel management principles that would be particularly adapted to managing complexity, including customer-focused strategies, whose satisfaction is a priority, work in small autonomous and interconnected teams that reduce decision-making times and generate a community spirit, and customer participation, in the conception of new products. Other principles are, for example, leaving a great deal of autonomy for employees to define their own work schedules, motivating them to develop personal projects, automate business relationships with customers and develop customer satisfaction measurement systems.

In many aspects, digital technology is perfectly suited to the organizational evolution identified as post-NPM: it allows greater coordination while maintaining the fragmentation of tasks and the independence of work groups, with a more centralized direction and control. However, unlike the matrix type noted above, Google's platform-like organizational structure allows the hierarchical pyramid to be further flattened by reducing or eliminating the need for intermediary levels through automation.

Likewise, the transfer of Google's management principles into the public sector has already been carried out. The importance taken by ideas such as an user-centered management or the strategy of an open State or government seek to facilitate citizen collaboration in the elaboration of solutions to public problems or challenges (see Ramírez, 2021). Initiatives such as public innovation laboratories that seek to provide solutions based on a more intensive use of data technology are also multiplying (see, for example, the movement of 'smart cities').

The forced confinement and expansion of telework caused by the pandemic have also broken a traditional dictum of modernity, implying a redefinition of its respective spaces: the separation between public life and private life. The home, as a private space, has been transformed into an office, a work space, and vice versa. Work time has increasingly mingled with private time. This situation also corresponds to Google's management principles, which tend to erase the separation between private life and work life, including the development of personal projects during work time, turning an employee's work project into a life project (Girard, 2008) . Likewise, the exchange between citizens and public officials has been virtualized and automated and is in the process of robotization thanks to the development of algorithms, automated and deep learning (*Deep learning*).

The digitization of public administration can then mean a change in the organizational paradigm that increases the rationalization and efficiency of a government. In this sense, the Google company has become the inspiration of a new management model for the public sector as well.

CONCLUSION

Throughout this work we have pointed out how the exercise of domination by governments has relied on different conceptions and organizational technologies implemented in private industries. With the passing of time, new technologies have made it possible to expand the number and diversity of available tools capable of influencing more and more efficiently the behavior of people for obtaining their obedience –which is the objective of any organization. Thus, the emphasis of the instruments of coercion used has been shifting from direct coercion by force (*hard policy*) to indirect coercion (*soft policy*). Now, with the digital revolution, the emphasis has been on the use of data and artificial intelligence (*smart policy*). Table 1 offers a synthetic comparison of these three models that correspond to three types of State. It should be noted that, more than a replacement of instruments, it is an accumulation of available techniques that are combined according to the circumstances and capacities of each State. Each case uses a particular mix of the different available techniques. Thus we can also glimpse a classification of different types of States based on the emphasis on government techniques used. The most technologically advanced countries will mainly use smart technology to govern, and as the case moves away from this center, the use of technologies based on incitement and the use of violence is intensified and prioritized.

TABLE 1. *FORMS OF GOVERNMENT, MANAGEMENT MODELS AND TYPES FOR REGULATING CONDUCTS*

	Bureaucratic state	Matrix State	Platform State
Accelerating Crisis	**WW 1 / Great Depression**	**May' 68/ Oil Crisis of '73**	**Health and environmental Crisis**
Economical regime	Oligopolistic (or State) authoritarian capitalism	Neoliberal and neo-constitutional capitalism	Digital information capitalism
Paradigmatic company	Taylor / Ford	Toyota	Google (GAFAM)
Mode of government	Government	Plural governance, third way	Authoritarian governance
Privileged instrument for dominance	Force, violence	Money	Data, Big Data
Model of public management	Bureaucracy	New Public Management (NPM) and Post-NPM	Smart Public Management, algorithmic governance
Privileged instrument for coordination	Law, Regulations	Market	Technology / Algorithms
Privileged instrument for the regulation of conducts	Authoritarian command and control, Hard policy	Economic incentives, neoliberalism ('90s) and neo-constitutionalism (00-20s)	Economic, psychological (nudges), neuronal and Smart Policy
Privileged science	Positive Law	Neo-classical and neo-constitutional economics	Behavioral sciences and neurosciences

Source: The author.

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