Platforms as Governments

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Abstract

In the last decades, platforms, a new sort of actors have emerged. They act mostly in the digital sphere, ensuring intermediation on two-sided markets, matching producers and consumers of goods or services. The technology to harvest, store and process continuous flows of data has given rise to new services which reach individuals, and change fundamental aspects of their life. Acting remotely from territories, these services have become so essential that they challenge legacy corporations as well as governments, while contributing to redefine both social norms and legal rules. Adapting to digital technologies has become a necessity for all institutions, private companies as well as public administrations and governments. In this paper, we show how governments are being upgraded with systems inspired from digital platforms, to better serve their citizens, increasing not only efficiently, but also transparency. Digital platforms on the other hand, because they popularise new norms worldwide, are increasingly involved in governing. The digital sphere has changed irreversibly the art of government. We consider various scenarios to analyse the future of the tensions between platforms and governments.

Keywords: digital platforms, intermediation, laws and norms, government

1. Introduction

The popular expression "government as a platform" (O'Reilly 2011) refers to a radical change in the use of technology by local and national public administrations. To become platforms, governments need to digitalize the services they offer to their citizens, and, consequently the management of all their data. More precisely, governments become digital platforms once they offer online services on top of which citizens may be able to build new services, thanks to the access to open data for instance. The platform architecture is both a technological change for a government and a political one aiming at more efficiency and more participations of citizens.

Yet, recent examples of crisis management - such as Facebook's Safety Check application to signal one is safe[1], launched during the Paris attacks in november 2015 - or the involvement of digital platforms in surveillance actions suggest that the dual expression, of "platform as government", should be explored. We call "platforms" existing digital online systems such as search engines or social networks, which connect users with other users or with services and on top of which new services may be built. We contend that platforms have opened new areas of government and that the externalities of their services make them compete with existing public services offered by legacy governments. We take government in a broad sense, including local and national public institutions, and consider the activity of governing, as governmentality, i.e. the ability to drive people's behaviour (Foucault 2009). Our central thesis is that the externalities of platforms are so important that platforms may take over legacy governing actors - and we focus on the example of the state - in an increasing number of areas.

To a certain extent, platforms rely on the same material as modern governments: data. Statistics - the art of modeling the "things of states" with the appropriate mathematical tools, in order to influence them are a central tool or modern governing (Foucault 2007). So are data, which feed statistics (Desrosieres 1999). Statistics allow a new political rationality based on norms. It defines normality - life expectancy, unemployment rate, etc. - and influences political action to guide behaviours towards these norms. During the last two centuries, the capacity of governments to obtain precise knowledge of their population has regularly been upgraded, with increasingly detailed censuses and technological improvements such as the digitalisation of census in the 40's for instance. The raise of life quality and expectancy is a direct benefit of data collection and processing which support public health policies for instance.

On the other hand, digital platforms, which started emerging in the 1990's are mostly data collecting, storage and processing systems (Lessig 1999) (Boudreau & Andrei 2009). Data are assets which allow platforms to develop new services, such as social networks, or added value services, such as personalization. Google's AdWords system is a well-known example in this field. Most data are directly produced by users through their activities. In return, data are analyzed to model users and their interests. Resulting models are used to influence behaviours.

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[1] https://www.facebook.com/about/safetycheck/

As such, these models take part in creating new governance areas. Incentives such as targeted advertising, or competition to have the best reputation or to be the most attractive user, are examples of procedures to govern users.

Lately, the externalities of this governance have appeared to be of foremost practical importance. For instance, Waze is well-known for shifting the quality of life of quiet neighborhood as it redirects traffic[2]. In Europe, as Google is the major search engine, the company has turned out to be in control of the administration of the "right to be forgotten"[3]. Eventually, the vivid debate around the "sharing economy" and the legal status of digital workers show that digital platforms are shaking the established norms of the labour markets.

Users are governed by platform, for instance physically when platforms guide their travels or emotionally when platforms target their yearnings. Incentives and competition are two tools which platforms use to govern. So are "terms of services", which govern the relation between platforms and users. We speak here of "governance" but we would like to emphasize that contrary to the traditional understanding of governance - when it comes to the state - digital governance does not explicitly rely on authority or coercion (Honigsheim 1947).

Yet, most platforms operate worldwide and challenge existing norms and promote new ones globally. The numerous conflicts - or collaborations in matters such as intelligence - between platforms and governments show that the two types of governance intersect and compete with each other. As we study "platforms as government", we want to take digital governance seriously and show that platforms impose to revisit the art of governing. Digital governance questions the nature of governance, the relevant tools to govern, the actors involved in the process, as well as the legitimacy processes. As they do so, platforms provide new answers to challenges such as building social organisations and they may provide insights into issues such as climate change. Our objective is to define digital governance and identify to which extent it shakes legacy forms of governance.

We first briefly recall the history of statistics and analyse modern governments as data driven. We show that policy making relies on data collection and processing. We then consider the use of data by digital platforms, and their relationship with their users. We highlight the new areas of governments opened by platforms and the potential conflicts with state governments. Finally, we consider long term perspectives, and show that digital platforms have induced irrevocable changes in governance. We rely on a scenario-based approach to identify the potential outcomes of the development of platforms.

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[2] http://www.cnbc.com/2014/12/11/la-residents-complain-about-waze-craze.html
[3] http://curia.europa.eu/juris/liste.jsf?num=C-131/12

2. Data-driven government

We define "governing" as the ability to influence and control people's behaviour toward a certain goal. "Governments" are political institutions, which govern people over a given territory. In this section, we focus on state administrations, as well as regional ones competent for a province or a city, as governments struggling to understand and rule the territories they are in charge of.

Rooted in the Westphalian system, dating back from the mid 17th century, nation-states enjoy full sovereignty over their territories. Each nation state is in charge of deciding and organizing all fundamental issues including the legal system, security, monetary system, taxation etc. on this territory. At the international level, states are linked by treaties, with global reach such as the WTO or regional ones, such as the EU. At the national level, regional governments have their share of responsibilities over sub-territories, to the exclusion of national prerogatives, which include geopolitical aspects such as diplomacy and defense, as well as in general the monetary system. Citizens have rights and duties defined by the government, which connect them with all sorts of services including security, education, taxes, medical assistance, etc. Different political organisations exist, based on different legitimacies, among which various forms of democratic systems.

Modern states have developed sophisticated means to increase their knowledge of their territory and population. During the last two centuries, census techniques have been developed to cover many sectors of society ranging from personal to economics. Together with census, statistical techniques have been developed mostly during the 19th century allowing to derive increasingly relevant consequences from the available data. From the late 19th century, modern government has become "data driven". The various procedures of data collection in the public administration have allowed the construction of very large datasets, while data processing became necessary to govern, initially *a priori*, to plan the development of infrastructures or the implementation of policies and increasingly *a posteriori* to justify the decisions and influence the individual behavior.

Statistics has become the main source of knowledge creation and a strategic tool for states. It helps identifying and designing norms and objectives. Eventually, most decisions of modern states include a justification relying on data analysis, comforting for instance arguments relying on abstract principles, such as justice or equity for example. Tables of mortality, birth, etc. constitute good examples of the rise of new data collection and processing procedures, which contributed greatly to the improvement of the health of populations. Policies encouraging the mutualisation of risks, e.g., health or accidents, were justified by a combination of high level principles related to the rights of persons, and global social efficiency analysis based on data.

Since 1700, the power of governments has relied increasingly on their statistical knowledge, which were used not only to define objectives but also to measure their efficiency (Desrosieres 1999; Rose & Miller 2010). Their share of knowledge over their territories gave

them a considerable advantage over other actors, in particular private corporations, as well as foreign states of course. This balance though started to decline probably around the 1980's, when new actors manipulating social and economic data gained more importance, with innovative capacities to harvest data.

Two important trends characterise the evolution of data-driven governments nowaday. Firstly, the decline of the state supremacy in the control of data over its territory. The management of very detailed maps of the territory, augmented with all sorts of data on activities, economic, transportation, etc. and including pictures constitute a good example of the rise of platforms in the knowledge of the activity of the territory of a temporal accuracy unmatched by governments. Their share of such data has thus declined continuously over the last two decades. Secondly, the increasing political wish of transparency and accountability of government, which implies more openness of administration data, and continuous evaluation of public action. This constitutes a complete change in the principles of public data management, which were closed by design.

The globalisation of the world economy, which resulted from the implementation of the principles of a liberal economy, facilitated the movement of people, goods and capital. It gave increasing facilities to private corporations to expand globally, while decreasing the power of governments. Free movements of goods and capital constrained governments to adopt local rules that compete at a global scale. Such a competition progressively changed the political balance between concrete factual data and abstract political principles. Numbers have acquired an increasing political legitimacy, at the same level as political principles, which lead various political scientists to speak about "governance by numbers" (Supiot 2016) (Verschraegen 2015) (Ostrom 2015).

The second trend, which is also calling for more data, is the desire to have more transparency and accountability of public action. Political systems of Western democracies, as well as other political systems, are under the pressure of public opinion for an increased efficiency and reliability in the political sphere. Pierre Rosanvallon speaks of "counter-democracy", that is new forms of democratic powers, taking shape "in the age of distrust" (Rosanvallon 2014). He distinguishes three counter democratic powers: oversight, prevention and judgment, that strongly rely on a new "utopia" of transparency. Therefore, evaluating public policies, and making public administration data open to the citizens are new political trends that governments have to take into account.

In July 2013, while the UK was organizing the G8 meeting, a rather innovative open data charter was proposed and signed by all participants. Its ambition covers a large spectrum of simple objectives ranging from politics to economy, from better governance to increased development opportunities. The charter is really ambitious when it asserts the principle of opening all data by default, apart from essentially three categories of data that need protection related to national security, privacy, or intellectual property issues. The charter has been followed by many decisions, at all level of governance, including directives of the European Commission.

Open data is now seen as an avenue for innovation. In 2014, the Royal Statistical Society in the UK published "The Data Manifesto[4]", where data is seen as the driver of prosperity, much like steam for the 19th century and oil for the 20th century. But the Manifesto goes beyond by asserting that data is "the revolutionary resource that is transforming the nature of social and economic activity, the capability that differentiates successful from unsuccessful societies".

Various public services have made tremendous progress, such as tax services in some countries for instance thanks to digitalization. The interaction with the administration has been made very easy in some cases, while it stays complicated in some others. Some governments are ahead of this race, including cities, as well as regions in the UK or the US for instance. Some of the data opened by the administration has been used for new applications, mostly in the transportation sector.

As governments open their data and digitalize their services, they adopt a platform infrastructure. At this stage, no revolutionary service has emerged, comparable with the services digital platforms have introduced, with similar impact on society, such as access to knowledge or social networks for instance. Yet, various think tanks highlight the potential increase of efficiency and savings brought by the platform architecture. Government as a platform also aims at increasing the transparency and accountability of public action, and involving citizens more largely in public action

Platforms, understood as economic entities, are fundamentally different from governments. They have little, if not no, territorial responsibility, but only links with their users. Moreover, their strategy differs greatly from the current strategy of opening public data. Data constitute the main assets of platforms, which open their services, not their data. Yet, in the next section, we contend that if government are turning platforms, platforms are opening new governance areas and are, as such somewhat turning into governments.

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[4] http://www.rss.org.uk/Images/PDF/influencing-change/rss-data-manifesto-2014.pdf

3. Platforms as governments

Digital platforms, which have appeared in the 1990's, already enjoy a role as governing actors. The best known platforms are probably search engines, which revolutionised the access to information, and social networks. They solved traditional problems - finding information, connecting with others, etc. - with efficient solutions. They highly invested in computing power and storage capacity, and boosted the development of new algorithmic techniques as well as new fundamental aspects in computer science, including programming languages, high performance computing, artificial intelligence, best effort solutions, etc. Most digital services are currently built on top of these platforms which provide basic services such as identity management or user data storage.

Although there is now a large spectrum of sectors in which platforms are penetrating, we state that platforms exhibit four distinguishing features which explain their disruptive power and their ability to put on digital governance. These features are the ability to operate in the digital sphere, the creation of ecosystems, the platforms' role as gatekeepers for their users, services and their data, and the fact that they are all for profit data companies.

The main activity of platforms is to offer intermediation services in two-sided markets, that is markets with, on one side, producers of goods or services, and on the other side, their consumers. Platforms intermediate between producers and consumers and connect them. Apartment rentals or ride hailing services constitute good examples of such applications. The interaction between both sides of a market and a platform is exclusively digital: they only exchange data such as identity or payment information through applications and online portals. Thus, platforms tend to be able to scale quickly.

The example of Uber - which defines itself as a data company and not a ride-hailing service provider - helps to explain this ability. Uber does not depend much on a specific infrastructure. The company neither possesses cars nor hire drivers. The heart of Uber is an application, which relies on a set of digital procedures or algorithms, to book a ride. As such, Uber can easily target all the markets throughout the world where booking a ride is a problem, i.e. virtually, the entire world, and abstract itself from a specific territory. Even if some platforms may rely on a more heavy infrastructure - to deliver goods or gather customers for instance - all platforms rely on a set of digital procedures or algorithms which answer a problem most people face and do not depend on the landscape of a specific territory. Platforms may offer their services anywhere in the world, thus building a "digital sphere" which is abstracted from physical territories. The numerous conflicts between platforms and local labour or business regulations for instance derive from this abstraction.

The second feature - the ability to build ecosystems - is related to the capacity of platforms to move even higher in abstraction, and to offer basic services that can be used by third parties to offer their services. This is very close to what governments do by ensuring essential services, water, energy, communication, etc. to serve both individuals as well as corporations, to develop

other services. No assumption is made on how the initial essential service is used. Even when platforms seem to target a specific market, we state that their externalities allow them to become basic infrastructures for the development of other services. Transportation applications, for example, possess data on traffic jam or the state of the roads, which are necessary to understand the flows of people throughout cities and optimize resources consumption or quality of life. As such, they have turned out to be at the same time necessary partners and potential opponents to local governments[5].

The third principle is gatekeeping. Platforms maintain a direct link with their users and are a portal to services, users and data. The direct link is fundamental in order not to loose data to other parties. Size matters for platforms, whose value follow a law "à la Metcalfe", with a quadratic dependency on the number of users (Hendler & Golbeck 2008). The more users a platform has, the more data it will get and the more attractive it will be, considering it is able to handle a large amount of users. The necessity to possess a huge population of users may explain why there is a dominant platform which emerges in each sector. Indeed, to fully be a gatekeeper, a platform benefits from an essentially monopolistic position. As a platform becomes monopolistic, it gains enormous power and may conflict with public administrations.

From these first three features, the last one derives: data are the main asset of platforms which are for profit organisations. Their business model is specific to two-sided markets (Rochet & Tirole 2003). For instance, gaining a strong network effect is the challenge for the survival of a platform as the more users and services a platform has, the more attractive it is. From a business perspective, one side of the market may sponsors the other. For example, online advertisers pay to broadcast their advertisements when users freely access content and services. Platforms may also charge a fee when they intermediate between users. So is the case of rental platforms.

As they have collected more and more data, platforms have contributed to the emergence of a "digital sphere": a immense data set which mirrors the world in all its dimensions - geographic information, social interactions, etc. Some corporations access and contribute to large portions of this digital sphere thanks to their powerful harvesting mechanisms such as mobile OS systems, or combined services on the same platforms, while others have access to very narrow areas, allowing only restricted activities. On the other hand, legacy actors, such as governments struggle to access this digital sphere and the legitimacy to do so remains under discussion.

The digital sphere has become the place to understand the world and influence it. The current trend of geolocation-based applications helps to understand this point. In a way, the digital sphere contains a map of the world, at a resolution and accuracy that has never existed before. Events, social interactions, business, trips, interests, etc. are all stored and updated according to a continuous flow of information coming from users. This allows to "govern" any territory to the extent that a platform may influence its users. Waze, for instance, does so when it

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[5] https://www.boston.com/news/business/2016/06/28/uber-data-boston-wants

suggests an alternative road to its user to skip traffic jams. As platforms governs territory, they may also redefine it. Waze may contribute to turn a peaceful neighborhood in a car-packed place and the rise of services such as airbnb may lead low-cost hotels to close (Byers et al. 2013). For this reason, platforms often conflict with local authorities. Possibly, nothing prevents platforms from offering services based on their externalities, such as redirecting traffic away from residential neighborhoods which would pay for it, or on the contrary sending cars to shopping areas that would pay as well. Online ad blockers exploit this business model: they are free for end-users while not filtering advertisements of a list of premium clients who pay.

Platforms have become so widely used that they offer essential services, without which our societies would hardly function anymore. They have so many users that the rules they impose on their favourite playfield, the digital sphere, shake the course of world (Boudreau & Andrei 2009). The debate around labour laws or the role of platforms in surveillance programs are only two examples of their importance. In a way, platforms govern users - for instance, they influence who they connect with, the information they access - but their governance departs from the traditional state-based one as they do not rely on a heavy vertical bureaucracy and visible demonstrations of power. On the contrary, digital governance is based on almost invisible reticular data collection procedures and incentives.

Clearly, platforms have shifted governance. Everywhere, legacy actors try to take inspiration from them. Nonetheless, the respective role of platforms and legacy actors is yet under elaboration as proved by current conflicts and negotiation around the place of platforms. Different scenarios could be deployed at different places and we now try to depict them.

4. The future of governance

Digitization has changed the territories to govern, making distance less relevant and enabling to model them in details (Kumar 2010). It has also shaken social organisations. Platforms induce new modes of organisations based on networks of users. Vertical social structures seem to get flattened and thus horizontalized when sides of a market can be easily swapped: a customer can become a producer, for instance.

This horizontalisation promises to disrupt a considerable amount of hierarchical structures. This process started already with corporations that offered services, in sectors such as transportation or the press for instance, where numerous companies have already closed, while the others are extremely challenged. The disruption will progressively penetrate all the sectors where there is intermediation on two-sided markets, that is a very large part of the socio-economic activities, including education, health, home services, etc. The mediation will be ensured by actors that have no interest and no participation in the services exchanged, which will eventually contribute to increase the level of the services, by abstracting them from a given solution.

The horizontalisation is a phenomenon at play at a very large scale in societies. It started at the end of the 20th century, concurrently in various fields. In industrial theories, the toyotism, in contrast with the fordism, for instance, which is fundamentally vertical, distributes horizontally the production of knowledge in the factory. Together with the lean production, it relies on methods for controlling flows and avoid waste of any sorts, much like data management of digital platforms, based on best effort strategies (Krafcik 1988). The means of the counter-democracy as described by Rosanvallon also belong to horizontal political structures.

The horizontalization also allows new promising economic perspectives, with a better management of resources. It has been popularised in particular by Jeremy Rifkin (Rifkin 2014), who demonstrated that the digitalisation allowed zero marginal cost development, and could seriously impact on collaborative commons. He also depicted the end of capitalism. Other authors also envisioned that the horizontalisation might be related to the global shortage of resources that mankind is facing on earth (Grumbach & Hamant 2015). The global issue for the planet, with its climate conditions worsening, introduces new challenges for the political system as a whole, whose capacity to face them in a coherent and effective manner can be to the least questioned. So horizontalisation is probably one of the most important irreversible phenomena at play, which has little to do with the current political setting.

Eventually, the emergence of the digital sphere as a new space in which activities, such as a global access to knowledge, or a global intermediary for passengers and drivers, take place, is a challenge for governance. The digital sphere is essentially not regulated at this stage, much like the sea before Hugo Grotius (Grotius 2004) in the 17th century, or the atmosphere, with much more recent efforts, for instance. And the respective responsibilities of actors such as states and corporations over the digital sphere are still under discussion.

For this reason, it is important to foresee the possible balance of power between these actors and the potential consequences of a shift in the balance between states and platforms. For instance, what would happen if platforms were to replace states? Following an approach we pursued in (Cunningham et al. 2016), we rely on a scenario-based approach to depict this shift. We identify two main forces which shape it: data regime - are data open or proprietary? and data hegemony - who is the owner of data? As we build our scenarios, we focus on two types of actors, state-based actors and digital platforms. State-based actors can be national governments. They have a legitimacy over their territory, which relies on historical constructions, and in particular the Westphalian concept of nation-state established during the 17th century, and its associated sovereignty. Local governments also belong to this group. On the other hand, digital platforms, which are mostly private corporations, have a very short history, and enjoy an emerging form of legitimacy through their wide popular adoption, and a protection under international free-trade treaties.

The current context of the digital sphere, and the digital economy, is extremely favorable to platforms. We identify five items which ground their success and that we will alter throughout our scenarios. Firstly, platforms possess human resources, mostly quite young, with a high digital literacy. They have also found means to foster crowd-sourcing to feed and improve their services. Then, while governments face severe constraints on their declining budgets, platforms enjoy skyrocketing growth, while concentrating capital and attracting investments. Thirdly, platforms have developed the means to harvest and process huge quantities of data. When governments often rely on slow and cumbersome procedures such as census, platforms have build infrastructure to continuously and efficiently collect flows of information.

Platforms have the capacity to handle real time analytics over continuous flows of data, while governments attempt to copy the services offered by platforms - France has developed a service comparable to Facebook Security check - and are still figuring out how to open their data. Eventually, while public administration suffers from a stack of heavy constraints, including local rules and national laws, platforms deliberately target new areas, for which there are almost no regulations, or confront legacy rules. Moreover, internally, as young enterprises, their constraints are also very light. While the balance of power between states and corporations is evolving in history, the current international treaties are in comparison with previous historical periods, very favorable to corporations, which can for instance sue states for passing laws that would impede their local business. The case *Philip Morris versus Uruguay* is a popular and controversial illustration of the current situation.

Several of these facts are conjunctural. The weaknesses of public administrations and the balance of power between private actors and states might evolve in the future. The technological literacy will increase as time goes, and so the difference between platforms and governments employees with that respect will progressively decrease. Constraints will increase on platforms as they reach maturity, and decrease on public administration once the digital revolution has been integrated in their processes. The very favorable situation that platforms

have enjoyed since their inception has been determinant for their extremely fast development, and it will obviously continue to do so for some time, but not for ever.

We elaborate scenarios to foresee the balance of power between states and platforms. To do so, we alter the parameters which affect this balance, i.e. the forces which shape the data sphere and the contingent facts we have described. We call the first scenario "Conflictual coexistence". It corresponds to the current situation. Platforms and governments share large domains of interest and conflict regularly. Platforms can be banned, local users sued, but platforms can also be in a dominant position making it hard to ban them. The second scenario depicts a "state of cooperation". In this scenario, platforms and governments develop distinct domains of action and cooperate when needed in a well-balanced share of power. Eventually, the last scenario consists of a merging of platforms and states. Platforms becomes the standard of government action, management of data and interaction with users/citizens. But either "platform as government" or "government as platform" wins depending upon the importance attributed to geography. These scenario are heuristic tools to determine relevant policy levers and actions.

A. Conflictual coexistence

Currently, platforms and territories are conflicting. Platforms deploy their services, which are widely adopted by the population, but often contradict local laws. Many issues end up in court. The right to be forgotten, labor laws and intellectual property constitute examples of domains of conflicts. Several of these conflicts have opposed an american corporations with a European institution, either at the European level, e.g., the European Court of Justice, or at a national level, e.g., Spain versus Google news. This reveals geographic imbalances. The geographic concentration of platforms, both in a small number of countries, and in these countries in a small number of regions, is a determinant aspect of this industry.

Among the Top 100 platforms, most are american, some are chinese, and a small share are russian (Faravelon et al. 2016). Most countries in the world rely on american platforms for essential services, and on local ones for specialised local services provided mostly as digital services by non-digital firms (newspapers, banks, etc.). There are a few exceptions to this general pattern, mostly in Asia. China is the only country that, as the US, handles local users on national platforms, and develops an aggressive international strategy.

The relationships between platforms and governments thus amounts in most cases to the relationships between governments and a foreign corporation. One of the issue which is high on the agenda of platform/government relationships is the question of national security. The revelations made by Snowden in 2013 have given to this very fundamental topic an extremely large audience. The reason of the world wide popular interest to a rather complex topic is clear. A real change has occurred.

While governments have accumulated very large amounts of data through census and statistics, they somehow managed very little personal data, but mostly global aggregated data. Interestingly though, the increase of knowledge that the government accumulated over its

population raised concerns during the past two centuries for privacy protection, in particular in the UK (Mahon 2009). This concern has become increasingly acute both for legacy governments and digital platforms since the amount of personal data harvested is incomparably large.

For the time being, there is no precise rule about the ownership of these data. The problem is not so much to know if users own their personal data, than to decide who is in control and can effectively use them. The focus of the current societal debate is on individual data, while the potential benefits of huge amounts of social data for collective information, much like statistics from legacy government, but based on real data, which is appealing and mostly unexploited for now, is not debated. Google Flu, even if somewhat inaccurate and now out of service, constitutes an example of the potential relevance of data for public good. As long as platforms and states conflict, little collective elaboration on public good will be possible.

B. State of cooperation

This scenario depicts a pragmatic approach. States and platforms remain the owners of their respective data. They keep on developing separated, and sometimes competing, services. Yet, sectorial agreements may be concluded. The cooperation between platforms and states could work both ways. Security is a domain were much is going on due to the emergency of the challenges. But much more could be done. Currently, there is no right for a government say to be able to extract any aggregated information (privacy preserving) over its territory from the data controlled by a platform. This would make sense, and extend largely the capacity of national statistical institute with new data types, and new analytics mode. Platforms could also contribute to manage taxes for the profit of local territories, regional or national, or global taxes for global issues related to global climate challenges, to pay for geo-engineering for instance. The potential of global players to address global issues should not be neglected given the challenges of our planet. This scenario probably calls for a discussion of the legitimacy of such agreements, especially if they derive from backdoor negotiations. If platforms address global social issues, this scenario also calls for rethinking the prerogatives of corporations, states and citizens when it comes to defining social good and welfare.

C. Platforms and states merge

The third scenario is the merge of the two concepts of platforms and governments. Rather provocative, considering the almost negligible history of platforms in comparison with the one of governments ranging over millenniums, this scenario should be considered. Platforms dominate the digital sphere and especially data economy, which is the most important source of power.

Still, insufficient knowledge is available today on the economic impact of data, not to mention the political one. If economists have focussed on the movements of goods and capitals (international agencies, such as the World Bank or OECD, have developed numerous measures of international exchanges), the movement of data which plays a fundamental role today has been largely ignored. It is not measured by any means, and it is hard to do so since there is no

reporting of any kind as there is for commercial or financial activities. So no data on data is one of the characteristics of the current period.

This third scenario can be subdivided in two options. Either platforms take over governments and most of their missions, either governments fully become platforms.

The first option is based on the observation that paradoxically, as governments increasingly base their decisions on data, their grip on data becomes looser. Financial institutions are well-known for the amazing data capacity they have developed since the 1980s with high frequency trading. They master the technology at a level unmatched by the public administration and take advantage of it to organize global financial exchanges, with little control of public administration. Corporations specialised in risk management or credit rating occupy a dominant position for evaluating public policies. Their evaluation of a country, which is taken very seriously by its government, has serious impact on its policies. Globally, independent private actors have accumulated the data. They own the analytics facilities that offer the most powerful evaluation of an extremely broad spectrum of economic as well as social sectors.

As we said, digital services are extremely influential thanks to their externalities. If private platforms master data economy and processing, states may thus have no options but delegating some missions to digital services. The organisation of the "right to be forgotten" in Europe exemplifies what could happen. As a digital service provider controls the access to online information, the European court of Justice makes it the only authority to administrate the right to be forgotten. Transportation, online voting, identity management could all be services transferred to digital platforms. Once more, this scenario calls into question the legitimacy of digital platforms and of the model of society they promote.

The other option is that governments fully become platforms, thus taking control of the data relevant to them and maybe forbidding competing private platforms or finding ways to cooperate and eventually integrate them. It may means that government platforms will have geographic borders, and as such will not reach the abstraction of global platforms. If platforms become governments, they will get the legitimacy over a given sector, at a global scale, frontiers becoming less relevant, although global platforms can very well and will accommodate local cultures and laws, as the right to be forgotten demonstrates. Both of these directions are somehow pursued today, with global rating actors playing a fundamental role, even if they don't have the coercitive power, and governments trying to connect with their citizens.

Conclusion

Data have played an increasing role in public administration for governance since the generalization of census and statistics two centuries ago. With the advent of digital platforms, governments are upgrading their facilities, with the ambition not only to increase efficiency, but also transparency, accountability, as well as citizens participation. Meanwhile, digital platforms contribute to enforce norms in an increasing number of essential aspects, such as labor, which conflict with laws in numerous countries.

Although different scenarios can be considered for the relationship between public administrations and platforms, governance has changed in an irreversible manner. The role played by data, the capacity to have real time information and control over people and things, the possibility to intermediate globally and remotely for two sided-markets, the possibility to rely on code and algorithms in place of human decisions and laws, the reticulation of the population in global networks and the consequent obsolescence of large numbers of vertical actors, including public administrations, are among the determinant factors of changes. Interestingly, the abstraction made possible by platforms that can mediate on territories on which they have no interest, might help satisfying global objectives or principles, that were enforced by laws in the past.

The scenarios we have elaborated should be viewed as tools to detect possible trends and issues. They are under investigation in the frame of the BYTE project to build a roadmap for big data in Europe[6].

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[6] http://byte-project.eu/

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