

FIGHTING DIGITAL CAPITALISM AND MODERNIZING PUBLIC ADMINISTRATIONS.

How the digital commons can be used to reform national states

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Introduction

This presentation seeks to characterize the problematization work deployed by bureaucratic entrepreneurs to carry out state reforms inspired by the critical world of the Internet. What makes these reform projects paradoxical, and thus the work carried out by those who carry them out, is that they are inspired by representations and discourses that are generally critical of public institutions. How do these reformers acclimatize representations forged in hacker circles to the austere offices of the administration? How do they translate discourses critical of the state into the object of reform? And how do they seek to win over decision-makers?

To answer these general questions, I draw on the case of an original mobilization composed of computer scientists, technologists, and public actors who have been seeking since 2008 to "transform the state through the digital commons." The concept of digital commons refers to digital resources, such as Wikipedia and free software, that communities of Internet users produce in a contributory manner, share through shared property rights and manage through forms of self-government. The digital commons movement, which emerged in the American Internet world at the turn of the 1990s, regularly mobilizes to criticize the state. They denounce that the latter would be too complicit with digital capitalism to allow for the free flow of information and too centralized to allow for the self-institution of the "digital republic. Yet, despite their critical charges, the digital commons have become the content of state reform projects debated in the political arenas of some countries since the turn of the 2010s.

In France, President François Hollande made "sharing and defending the digital commons" one of the three priorities of the French presidency of the Open Government Partnership². In the United States, Beth Noveck, CTO, joined the first Obama administration seeking to transform government by using the Wikipedia model³. In Ecuador, the socialist government of Rafael Correa called on spokespersons of the commons movement to formulate public policy proposals with the aim of making the country "*a free knowledge society [and] an economy of the cognitive commons*"⁴. In Barcelona, the new mayor of the city Ada Colau announced at an international conference: "*there are many cities that are weaving a network and alliances to defend the commons*"⁵.

How have these reform entrepreneurs worked to interest policy makers in defending the digital commons when they seem to be challenging highly instituted state arrangements? What prefigurations of the state do they compose when they consider, as the quote in the title does, reasserting the role of the state by allowing citizens to organize themselves around the digital commons precisely without it? In a previous article, we showed that the antagonism between the State and the digital commons is not so much an irreducible incompatibility as a resource that is constructed and mobilized by the movements that defend the cause of the digital commons. We have shown that while the latter criticize *certain* state arrangements, they prefigure others, even going so far as to formulate public policy proposals. This thesis thus reduces the tension of the enigma, but does not exhaust it. Why do bureaucratic entrepreneurs decide to take the cause of the digital commons seriously precisely from 2008 onwards and only in certain countries? And how do they go about formulating a reformist narrative capable of enlisting decision makers?

To study our case, we place ourselves within the sociology of state reform. Most works of political sociology describe the always limited action that reform entrepreneurs play in the constrained universe of the state. They invite us not to fall into the heroic illusion of their action⁶. But the opposite position, which would

² X. BERNE, "François Hollande promotes the sharing of the 'digital commons,'" on *Next Impact*, September 21, 2016 (online: <https://www.nextinpact.com/news/101475-francois-hollande-promeut-partage-biens-communs-numeriques.htm>; accessed December 13, 2017)

³ The United States is a borderline case, because as B. Noveck points out Noveck: "We had allies in the White House. But I wouldn't say that the language of the commons was there. The language of Creative Commons, I introduced it (...), but it was the values of the commons and not the academic language of the commons. Interview, June 16, 2021

⁴ X. BARANDIARAN and D. VAZQUEZ, *Sumak Yachay Becoming Sociedad del Conocimiento Común y Abierto Designing the FLOK Society*, Instituto de Altos Estudios Nacionales, 2013

⁵ (I translate) <https://www.pressenza.com/2018/05/las-politicas-de-barcelona-inspiran-cambios-en-vivienda-y-feminismo-alrededor-del-mundo/>

⁶ M. DOBRY, *Sociologie des crises politiques*, Paris, Presses de Sciences Po, 2009

consist in denying any "intentionality" to political changes, is difficult to maintain. For P. Bezes and L. Lidec, "reform entrepreneurs" are groups of actors who claim the intention, and are able, to reform an institution by making a diagnosis, proposing a solution and creating a coalition of supporters around them⁷. The reforming activity is therefore above all a cognitive and "signifying" activity⁸. It mainly mobilizes acts of language, it constructs narratives and it functions in the mode of a promise. This can be explained by the division of bureaucratic labor: since reform entrepreneurs are rarely the ones who implement their reforms, this leads them to a certain "idealization" of reform plans. They load their narratives with "ideal figures"⁹.

But this idealization must be balanced with the second, more strategic role of reform activity, which consists of proving the benefits of reforms in order to encourage their acceptance and place them on the agenda by building "*policy windows*" (¹⁰). To do this, these "entrepreneurs" take advantage of exogenous phenomena (i.e. "the digital revolution") or phenomena endogenous to the administration (i.e. "the obsolescence of information systems") to justify the importance of their reform solution to those they are trying to convince¹¹. The sociology of translation would say that these reform entrepreneurs carry out a work of "problematization"¹². For Michel Callon, this work consists of the formulation of problems through which

⁷ See P. BEZES and P. LE LIDEC, "Ordre institutionnel et genèse des réformes", in *Sociologie de l'institution*, Paris, Belin littérature et revues, 2011, p. 55-75.

⁸ N. BRUNSSON and J. P. OLSEN, *The Reforming Organization. Making Sense of Administrative Change*, New York, ROUTLEDGE, 1993

⁹ P. BEZES and P. LE LIDEC, "Ce que les réformes font aux institutions", in *Sociologie de l'institution*, Paris, Belin littératures et revues, 2011, p. 89

¹⁰ See in particular the work of J. W. KINGDON, *Agendas, Alternatives and Public Policies*, Boston, TBS The Book Service Ltd, 1984. According to his pioneering work, a public policy is placed on the agenda if three factors align in a given period. First, the attention of public authorities must be focused, usually through the work of cause contractors, on a particular problem or set of problems. Second, policy solutions must be transcribed into compelling narratives that are available to decision makers. Finally, decision-makers must feel a favorable balance of power in order to resolve to put a public policy on the agenda, a modality that is expressed mainly, but not exclusively, on the occasion of electoral changes.

¹¹ For more recent work, see P. HASSENTEUFEL, "Les processus de mise sur agenda : sélection et construction des problèmes publics", *Informations sociales*, n° 157, n°1, Caisse nationale d'allocations familiales, 1^{er}February 2010, p. 50-58 and F.-R. BAUMGARTNER and B. JONES, *Agendas and Instability in American Politics*, 2nd ed., Chicago, University of Chicago Press, 1993. For an update of this investigative perspective, see the International Comparative Agenda Research Project, which aims to systematize research on agenda setting with work on policy attention processes. J. WILKERSON *et al*, "The Comparative Agendas Project: Objectives and Contents", *International Journal of Comparative*, Vol. 16, No. 03, De Boeck Supérieur, 2009, pp. 365-379

¹² For a collection of classic articles on the sociology of translation, see M. AKRICH, M. CALLON and B. LATOUR (eds.), *Sociologie de la traduction : Textes fondateurs*, Paris, Presses des Mines, 2013.

those who pose them "identify a set of actors whose objectives or inclinations they seek to demonstrate that they must, in order to achieve their objectives or follow their inclinations, necessarily pass through" the solution they propose¹³ . In this way, they seek to "interest" and "enlist" them in their reform project¹⁴ .

The purpose of this article is therefore to describe in detail the problematization work carried out by entrepreneurs who seek to transform the State through the digital commons by drawing on the contribution of these works of sociology of agenda setting, sociology of State reforms and sociology of translation¹⁵ . Our investigation has allowed us to constitute two corpora. The first corpus is composed of twenty semi-structured interviews with central actors in the cause of the digital commons and the main entrepreneurs of digital commons reforms in the four countries studied¹⁶ . The second corpus gathers the written production of these

¹³ The sociology of science and technology, and in particular the theory of the actor-network, has played a pioneering role in the notion of problematization. For M. Callon, problematization is the formulation of problems through which those who pose them "identify a set of actors who, in order to achieve their objectives or follow their inclinations, must necessarily pass through" the solution they propose. M. CALLON, " Éléments pour une sociologie de la traduction : La domestication des coquilles Saint-Jacques et des marins-pêcheurs dans la baie de Saint-Brieuc ", *L'Année sociologique (1940/1948-)*, vol. 36, 1986, p. 169-208.

¹⁴ M. AKRICH, M. CALLON and B. LATOUR, " À quoi tient le succès des innovations?L'art de l'intéressement ", *Annales des Mines*, vol. 11-12, 1988, p. 4-29

¹⁵ Anne Bellon mobilizes, in certain places of her thesis on the institutionalization of Internet public policies in France, this triple research perspective. She shows how "the causes of the Internet" are gradually incorporated within the State through the work of "problematization" that bureaucratic "passeurs-entrepreneurs" carry out to interest decision-makers in the importance of adopting "Internet policies. It makes explicit the way in which a "digital axis" is structured between certain "evangelists" and "technocrats" within the bureaucratic field on the occasion of the arrival of a new political staff. And finally, it reveals the barriers to these policies generated by certain actors who benefited from the previous institutional situation, as well as the impact of this resistance on the reform project. A. BELLON, *Governing the Internet. Mobilizations, expertises and bureaucracies in the making of digital policies (1969- 2017)*, Paris, Université Paris 1 - Panthéon-Sorbonne, 2018

¹⁶ **Ecuador** Guillaume Long (Minister of Human Talent and Director of the Institute of Higher National Studies (IAEN), which carried the FLOK project), June 28, 2021 // David Villa (researcher in charge of the FLOK project at IAEN), April 29, 2021 // Michel Bauwens, September 25, 2019. **Barcelona** Mayo Fuster Morell (head of the Barcola working group in the Economic Policies Department of the City Council), June 11, 2021 // Manuel Punsoda (head of Active Democracy in the Citizen Participation Department), September 15, 2020 // Fernando Pindado (head of the Participatory Democracy Department at the City Council), September 14, 2020 // Xavier Barandiaran (interview by Antoine Gaboriau), September 9, 2020 // Joan Subirats (politician and second on Ada Colau's list in the 2019 elections), September 1, 2020 // **United States** Beth Noveck (lawyer and CTO in the first Obama administration), June 16, 2021 // Hal Plotkin (member of Creative Commons and advisor to the Department of Education in the first Obama administration), July 5, 2021 **France** Yann Bonnet (Secretary of the Conseil National du Numérique), April 7, 2021 // Benoit Thieulin (President of the Conseil National du Numérique from 2013 to 2016), March 23, 2021 // Philippe Aigrain (important translator of the notion of digital commons in France, co-founder of the Quadrature du Net), April 12, 2020 // Axelle Lemaire (Member of Parliament and Secretary

reform entrepreneurs. These are mainly reports¹⁷, but also books they wrote during their tenures¹⁸, some of their blog posts¹⁹ and their speeches²⁰.

We will see that the reform entrepreneurs highlight the economic, political, and social issues raised by developments in the digital world, which they link to the discourse of the presidential majority. Our investigation shows that they construct two main registers of problematization: regulating the digital society in the face of digital capitalism by making the digital commons a "category of public intervention"²¹ (A); and modernizing the State bureaucracy by making the digital commons an "instrument of public action"²² (B).

in charge of the Digital Economy), March 3, 2020 // Henri Verdier (director of the DINSIC), January 8, 2020 // Hervé Le Crosnier, November 13, 2019 // P-Y Grosset (employee of Framasoft), June 14, 2018 // Valérie Peugeot, November 3, 2017 // Lionel Maurel (lawyer and founder of Savoirscom1), November 8, 2017 // Michel Briand, November 8, 2017

¹⁷ Respectively for **Ecuador**, the introductory report of the FLOK project as well as their "policy papers", for **Barcelona**, two reports produced by X. Barandiaran for the Barcelona City Council, for the **United States**, the first plan for the OGP written by B. Noveck. For **France**: all the public reports mentioning the occurrence "digital commons". see **box**. X. BARANDIARAN and D. VAZQUEZ, *Sumak YachayBecoming Sociedad del Conocimiento Común y Abierto* Designing the FLOK Society, Instituto de Altos Estudios Nacionales, 2013; J. RUIZ *et al*, *Guia sobre soberania tecnològica a l'Ajuntament de Barcelona*, Barcelona, Ajuntament de Barcelona., 2017; J. RUIZ *et al*, *Guia de compra pública de TIC de l'Ajuntament de Barcelona*, Barcelona, Ajuntament de Barcelona, 2017; NATIONAL ACTION PLAN FOR THE UNITED STATES OF AMERICA, Washington, D.C, White House, 2011.

¹⁸ In particular B. S. NOVECK, *Wiki Government: How Technology Can Make Government Better, Democracy Stronger, and Citizens More Powerful*, n. 1., Brookings Institution Press, 2009; N. COLIN and H. VERDIER, *The Age of the Many. Entrepreneurship and Governance after the Digital Revolution*, 2nd edition, Paris, Armand Colin, 2015; BARANDIARAN and D. VILA-VIÑASVIÑAS, *Buen conocer / FLOK Society: modelos sostenibles y políticas públicas para una economía social del conocimiento común y abierto en Ecuador*, Digital, Quito, Ecuador, Asociación aLabs, 2015; R. RAMIREZ GALLEGOS and P. I. TURRION, *La virtud de los comunes: paraísos fiscales al paraíso de los conocimientos abiertos.*, 1st edition, s. l., El Viejo Topo, 2014

¹⁹ Respectively the blog of H. Verdier, B. Noveck and X. Barandiaran Source : <http://www.henriverdier.com/>, <https://bethnoveck.medium.com/>, <https://xabier.barandiaran.net/>

²⁰ Respectively the speeches of Rafael Correa at the Software Libre Campus Party (Quito, 2012), at the Ecuadorian Institute of Intellectual Property and that of François Hollande at the Open Government Partnership Summit (Paris, 2016). Sources: <https://www.youtube.com/watch?v=Zjajy-ia-SE>, <https://www.youtube.com/watch?v=wxct7h53dqM#t=840> and <https://www.elysee.fr/francois-hollande/2016/12/07/declaration-de-m-francois-hollande-president-de-la-republique-sur-le-partenariat-pour-un-gouvernement-ouvert-a-paris-le-7-decembre-2016>

²¹ V. Dubois shows in his book the processes that led "culture" to become a category of public intervention in France. While artists were asserting their autonomy, they formulated problems that became public and that led public actors to seize them by constructing a "cultural policy" whose definition remains nevertheless subject to dispute V. DUBOIS, *La politique culturelle - Genèse d'une catégorie d'intervention publique*, Paris, Belin littérature et revues, 2012

²² Defined by P. Lascoumes and P. Le Galès as "a technical and social device that organizes specific social relations between public power and its recipients according to the representations it carries". Let us specify that the recipients of these instruments can be the public agents themselves, as in the

A. Regulating the digital society in the face of digital capitalism. Digital commons are becoming a category of public intervention.

The first register of problematization seeks to interest decision-makers by showing them that a whole set of entities cannot fully realize their potential because of the mutations induced by the rise of "digital capitalism"²³. Administrations are becoming dependent on GAFAM (Google, Amazon, Facebook, Apple and Microsoft), national markets in the digital economy cannot generate optimal innovation because of the anti-competitive monopolies of information capitalism, new forms of peer-to-peer production are struggling to flourish because of the predominance of the capitalist mode of production, and digital citizens are not fully integrated into the digital society because of multiple digital divides. To solve these problems, reform entrepreneurs urge policymakers to defend and promote digital commons to regain control and preserve major economic and social balances in a world where American digital capitalism is becoming hegemonic. They prefigure a "regulatory state"²⁴ of the digital society and construct digital commons as a "category of public intervention," that is, as a set of practices and devices, designated by a new and encompassing lexicon, worthy of special attention, legislation, and public policies by the public power²⁵.

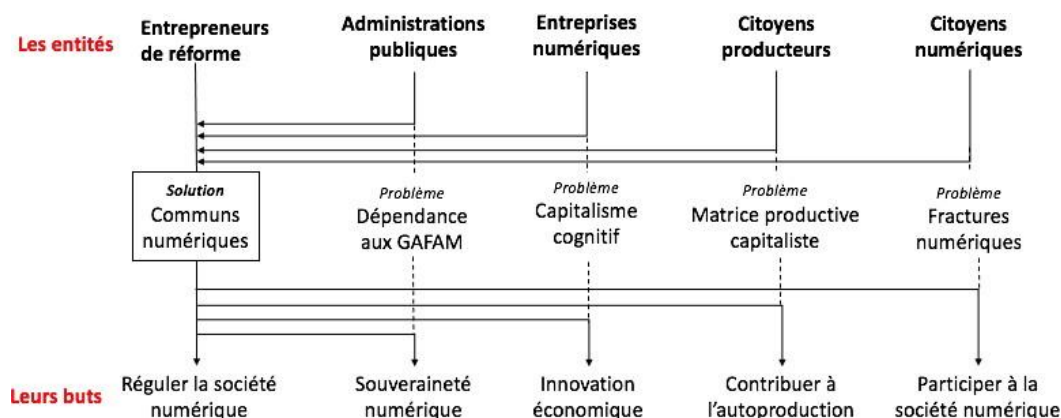
Figure 4.2. Regulatory State of the Digital Society through the Digital Commons

case of the instruments of *New Public Management* for reforming the State. See P. LASCOUMES and P. L. GALES (eds.), *L'action publique saisie par ses instruments*, Paris, Presses de Sciences Po, 2010

²³ The concept of "digital capitalism" appeared at the turn of the century to characterize the transformations brought about by the Internet on the global economy in general and the form that capitalism adopts in a digital context in particular. Since then, other works have refined the transformations "platform capitalism", "surveillance capitalism", etc. D. SCHILLER, *Digital capitalism: networking the global market system*, 1. MIT Press paperback ed, Cambridge, Mass. London, MIT Press, 2000

²⁴ This is one of the most common meanings given to the figure of the regulatory state. For a theoretical discussion of the different meanings, see J. CHEVALLIER, "L'état régulateur", *Revue française d'administration publique*, vol. no111, n°3, École nationale d'administration, 2004, p. 473-482

²⁵ V. DUBOIS, "Politique culturelle : le succès d'une catégorie floue", L'Harmattan, 1998, p. 167



1. State sovereignty in the face of GAFAM

First problematization: dependence on GAFAMs would threaten the sovereignty of States in the exercise of their functions.

In the mid-2000s, many administrations came to use GAFAM tools and services. But criticism is emerging as these foreign digital platforms become vital infrastructure in carrying out certain governmental missions ²⁶. Reform entrepreneurs feed and build on the fear that platform capitalism has for political elites.

H. Verdier - "The comparable with Google is the East India Company. They are transnational, stronger than many states and able to influence [he taps the table several times] the destiny of states for their own benefit²⁷".

This dependence would thus threaten the sovereignty of the nation in general and that of the public administrations in particular.

Yet reform entrepreneurs present the digital commons as the last bulwark on which states could rely.

²⁶ See for example in France P. BELLANGER, *La souveraineté numérique*, Paris, Stock, 2014 for whom "the Internet and its services are controlled by the Americans. The Internet is siphoning off our jobs, our data, our private lives, our intellectual property, our prosperity, our taxation, our sovereignty.

²⁷ Interview January 8, 2020. H. Verdier, for example, dramatizes the dependence of the world of culture on platform capitalism in the illustration of one of his blog posts where we see a reproduction of an ancient map in which digital space is dominated by kingdoms representing the GAFAM. Source: <http://www.henriverdier.com/2017/10/la-silicon-valley-est-elle-en-passe-de.html> (accessed August 26, 2021).

H. Verdier - "The commons have always been essential to communities (byways, communal woods...), but they are becoming even more important in a digital economy that, without them, tends to close in on the monopolies of digital giants. Wikipedia, OpenStreetMap or Linux are today the only stumbling blocks to the growing influence of the big platforms. If we are not careful, the State will soon have to buy the databases necessary to carry out its missions, because it will need to use the most complete ones and will not have the means to maintain them. Preserving our digital sovereignty means building new, more loyal and more respectful alliances with users and contributors²⁸ .

Here is H. Verdier's problematization: digital platforms are becoming hegemonic to the point of challenging the sovereignty of the State in the exercise of its essential missions. The form of the digital commons seems to be the only one capable of countering this hegemony thanks to the strength of the communities of contributors. The State must therefore forge alliances with the strength of this "multitude" of user-contributors and rely on the digital commons they produce, in order to regain its sovereignty while defending the general interest ²⁹ . This problematization is present in France, in Barcelona and especially in Ecuador, where the issue of sovereignty is stronger than in the United States in the face of a foreign industrial power³⁰ .

2. Innovation and economic growth in the face of the monopoly of cognitive capitalism

²⁸ P. PEZZIARDI and H. VERDIER, *Des Startup d'Etat à L'Etat plateforme*, Paris, The Foundation for Political Innovation, 2017

²⁹ H. Verdier - "The proof is in the pudding that communities of contributors can therefore ensure the development of some of the essential infrastructures of the modern economy, such as OpenStreetMap, which today represents the only real alternative to Google Maps (...). In its face-off with the Valley, the French state must appropriate the rules and methods of the digital age to accomplish its main mission: the defense of the general interest. This is the meaning of the words of the deputy P. Lemoine when he justifies the support of the State "to foundations such as Wikipedia, Mozilla or OpenStreetMap to create links between public services and common goods (...) [because] after all, isn't a strong link between general interest and common good also natural? P. LEMOINE, *The new grammar of success. The digital transformation of the French economy*, Paris, Prime Minister, 2014

³⁰ Rafael Correa justifies the use of free software as a weapon of liberation against foreign domination: "It is necessary for all of us to adopt free software both at the public and private level. In this way we will guarantee the sovereignty of our states, we will depend on our own forces and not on external forces in the region. (...) The Ecuadorian government has already established this as government and state policy. This will be an important step in the integration and, why not say it, - for the liberation of Latin America" (I translate) R. CORREA, *Rafael Correa: capitalismo cognitivo vs. economía social del conocimiento*, Quito, Ecuador, 2013

The second problematic issue is that the quasi-monopolistic position of the dominant players in cognitive capitalism prevents the digital economy from being fully innovative.

At first glance, the economic development of "cognitive capitalism"³¹ by actors such as GAFAM, Airbnb (2008) and Uber (2009) is dazzling and leads to a certain fascination among political elites who are beginning to perceive digital technology as a "revolution"³². They have been able to capture the value generated by knowledge through intellectual property rights on the one hand and by information from social interactions in a digital context on the other. But as the services of these multinationals become central infrastructures in the economic life of countries and cities, concerns are emerging³³. In particular, companies in the digital economy would be subject to the contractual terms and unfair competition of these quasi-monopolistic actors.

However, against this monopolistic domination, reform entrepreneurs claim that the open digital commons represent a way out to boost innovation and economic growth. The Conseil National du Numérique thus defends that :

"The commons are at the heart of the conceptions that presided over the birth of the Internet. They have enabled its creative dynamics and the emergence of a digital economy (...) The digital commons are now recognized as an engine of economic and social innovation that has fostered the development of a whole sector of activities³⁴."

This register, which is part of what B. Loveluck describes it as "informational liberalism"³⁵, and was first mobilized by the defenders of free software in the United States and then in Europe, particularly during the battle over the European directive on the patentability of software³⁶. It was used by L. Lessig to justify the

³¹ Y. M. BOUTANG, *Le Capitalisme Cognitif: La Nouvelle Grande Transformation*, 1^{re}ed.

³² A. BRAVO, *La société et l'économie à l'aune de la révolution numérique. Enjeux et perspectives des prochaines décennies (2015-2025)*, Paris, La Documentation française, 2009; É. SCHERER, *La révolution numérique - 1ère édition*, Paris, Dalloz, 2009; R. RIEFFEL, *Révolution numérique, révolution culturelle*, Paris, Gallimard, 2014

³³ Citizens would be threatened by the capture of their personal data. S. ZUBOFF, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*, 1st ed. New York: PublicAffairs, 2019. Even the urban space is affected by this problem, as it becomes "the landing place of platform capitalism" through services like Uber and Airbnb. L. ROTH, A. MONTERDE, and A. CALLEJA-LOPEZ, *Ciudades democráticas*, *op. cit.*, p. 173-209

³⁴ B. THIEULIN, V. PEUGEOT and D. KAPLAN, *Ambition numérique : pour une politique française et européenne de la transition numérique*, *op. cit.*

³⁵ B. LOVELUCK, *Freedom through Information*, EHESS, 2012

³⁶ We find it on the occasion of the battle that is taking place around the European directive on the patentability of software. In 2005, during the vote in the European Parliament, Michel Rocard (rapporteur for the text) recalled the three reasons why he was opposed to the directive: "the principle

importance of *open commons* in the digital context (see Chapter 1). It has been updated here by these reformers, for whom the State must defend and support the open digital commons by reducing intellectual property rights in order to encourage the development of an innovative, dynamic and non-monopolistic digital economy. With one difference, however: these justifications are linked to protectionist arguments and geopolitical issues related to the industrial domination of the United States over Europe or Latin America in the digital sector. This line of argument has been taken up by H. Verdier in France and R. Correa in Ecuador³⁷.

3. *The need to change the productive matrix: towards a post-capitalist society based on the commons.*

Third problematization: the capitalist mode of production would prevent citizens from contributing, through peer-to-peer technologies, to the self-production of resources whose use value is shared.

Since 2008, a number of political currents have criticized the capitalist mode of production as the cause of the triple economic, social and environmental crisis that the world is going through³⁸. Generally speaking, capitalism is criticized because, in this economic system, a small capitalist elite exploits work and nature, decides

of the free circulation of ideas, respect for competition and the refusal of the monopoly effect linked to patents and, finally, the protection of individual creators and small and medium-sized enterprises in the face of the overwhelming power of a few very large companies. At the end of a large mobilization, the directive is finally massively rejected. M. ROCARD, "Intervention - Patentability of computer-implemented inventions", on *europarl*, July 5, 2005 (online: <https://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+CRE+20050705+ITEM-006+DOC+XML+V0//EN>; accessed on May 10, 2021) For a detailed account of this episode, see P. NOISSETTE and T. NOISSETTE, *La bataille du logiciel libre*, Nouvelle éd, Bagnaux, La Découverte, 2006

³⁷ R. Correa frames the problematic with the perspective of an "anti-imperialist struggle" in this new phase of cognitive capitalism, where power is held by those who control and sell knowledge (contained in particular in software). He explains during a conference organized at the Institute of Intellectual Property in Quito and broadcast on a national television channel, that cognitive capitalism imposes a new international division of labor: "Who produces knowledge goods? The first world, because it has the technological and financial means. And it demands *royalties* at every turn. Who produces environmental goods? Third world countries. And how much do they pay us for that? Nothing. It's all about power my friends." (I translate) R. CORREA, *Rafael Correa: capitalismo cognitivo vs. economía social del conocimiento*, op. cit.

³⁸ These crises are widely mobilized by protest movements and opposition political parties to justify the intervention of public power in order to "democratize" the productive sphere and the distribution of wealth. Several models are defended: the non-market social economy, the cooperative market economy or the "socialism of the 21^{ème} century". This model was proposed by the sociologist H. Dieterich at the end of the 1990s and served as ideological support for a number of South American left-wing leaders, including R. Correa. He was even advised by the latter. For his reference work, see H. DIETERICH, *Der Sozialismus des 21. Jahrhunderts*, Berlin, Homilius, Kai, 2006

on the organization of work for production and appropriates the surplus value of the latter. This critique is reactivated in the digital context around the concept of *digital labor*³⁹.

However, for the reform entrepreneurs, the digital commons are the bearers of "*a general change that redefines the modes of production, distribution of wealth and relationship to value*"⁴⁰. According to them, the digital commons respond exactly to the three problems of the "capitalist productive matrix". Against the exploitation of labor, they allow the decentralized and voluntary contribution of citizen-producers. Against hierarchical organization, they are democratically governed. Against capitalist accumulation, the value generated is not captured, but redistributed equitably. This anti-capitalist argumentative framework has been adapted by reform entrepreneurs to articulate it with national and local political traditions and discourses, where it has found resonance especially in Ecuador and Barcelona (a little less in France and much less in the United States).

In Ecuador, participants in FLOK projects seek to articulate the "change of productive matrix" with the political program of Rafael Correa. In 2007, Correa wrote into the Constitution the figure of a State that would guarantee a "*buen vivir*" society centered on harmony between humans and nature. However, in the run-up to the new elections in 2012, supporters of his own camp criticized his "extractivist" industrial policy based on oil⁴¹. To counter these criticisms, he defends a "change in Ecuador's productive matrix" from an economy based on "the exploitation of polluting finite resources" to one based on "*the sharing of infinite knowledge resources*" and the "*democratization of the means of production*"⁴². The reform entrepreneurs of the FLOK project thus write their proposals to make open digital commons and *commoning* practices the ideal solutions for "changing the productive matrix of Ecuador"⁴³.

³⁹ According to this critique, digital capitalism captures the value generated by the activities and social interactions of Internet users, who would thus work for free for capital accumulation. S. BROCA, "The Two Critiques of Digital Capitalism," *hal-01137521*, 2015

⁴⁰ B. THIEULIN, V. PEUGEOT and D. KAPLAN, *Ambition numérique : pour une politique française et européenne de la transition numérique*, *op. cit.*

⁴¹ Advocated by the indigenous peoples of his country. "Buen vivir" is the Spanish translation of the Quechua concept "sumak kawsay".

⁴² He seeks to inscribe this change of "productive matrix" in the framework of "21st century socialism" which aims to "democratize the means of production". R. CORREA, E. MORIN and M. BARAILLES, *Ecuador: from banana republic to non republic*, Paris, UTOPIA, 2013

⁴³ They write that the Ecuadorian state insists in its doctrine of 21st century socialism on the need to "democratize the means of production in order to generate equitable conditions for everyone to participate in the economy" and that this must involve, in their view, "recognizing the importance of distributing access to the means of production in order to strengthen everyone's participation in productive activities in the context of a social economy of knowledge," See "FLOK: Policy paper

"This legacy [colonial through intellectual property] is opposed (...) by indigenous traditions (...) of community knowledge (re)production and, on the other hand, by the new forms of collaboration of the digital commons of culture and hacker ethics. The principles of reciprocity (randi-randi) and the organization of community work (maki-maki) resonate in what we could call the digital Pachamama of knowledge (the commons of general intellect). In the face of the enclosures of cognitive territories, the possibility of sowing, tending and fertilizing the community lands of open knowledge opens up."

Thus, the problematization of the "capitalist productive matrix" is articulated to the solution of forms of digital commons that allows at the same time to lead to the "socialism of the twenty-first century" by distributing productive capacities, to fight against American imperialism while rooting itself in indigenous traditions.

In the case of Barcelona, reform entrepreneurs seek to articulate the critique of the capitalist mode of production to the Catalan economic and historical context. First, social and political movements, such as Barcelona en comú, are critical of the crisis of financial capitalism and platform capitalism (notably AirBnB) as the cause of significant social problems, including the housing crisis in Spain, which Ada Colau has made her pet issue. Second, the social and solidarity economy movement, which updates the Catalan anarcho-syndicalist community tradition of the 1920s, is becoming increasingly important in the region⁴⁴. Reform entrepreneurs are thus adapting their discourses to make the digital commons the ideal devices to lead a "change of productive matrix" towards the social and solidarity economy in a digital context⁴⁵. Fuster Morell's *Barcola* Task Force writes public policy

on distributed manufacturing - Commons Transition Wiki," n.d. (online: http://wiki.commonstransition.org/wiki/FLOK:_Policy_paper_on_distributed_manufacturing#cite_ref-ftn8_8-0; accessed May 18, 2021)

⁴⁴ As an illustration, we can mention the Catalan Integral Cooperative (CIC), created in 2010, which brings together a network of cooperatives - food, educational, banking, etc. - aimed at "building an integral alternative to capitalism." E. DANIEL, "Neither capitalism nor the state - the integral cooperative flourishes in Barcelona," on *Reporterre*, May 18, 2015 (online: <https://reporterre.net/Ni-capitalisme-ni-Etat-la-Cooperative-integrale-s-epanouit-a-Barcelone>; accessed May 5, 2021). For a book on cooperativism in Barcelona written by a historical member of the Ciutat Invisible, see I. MIRO, *La economía social y solidaria en Barcelona*, 1st edition, Spain, Marge Books, 2017. Or the three pamphlets, *Crisis*, *Podemos* and *Queremos*, distributed in more than 350,000 copies each with statements such as "We declare the beginning of a new post-capitalist era, the era of the right to use, the economy of resources and the common good. It will be through good stewardship of the resources that capitalism tends to underuse that we will be able to share how we transform the crisis into positive change. (...) We declare ourselves in revolt against the old world, we declare the civilization of private property in disuse shipwrecked. We declare that the era of the right to use, of the economy of resources and common goods has begun. Source : <http://www.economiasolidaria.org/sites/default/files/PODEMOSCAST.pdf>

⁴⁵ J. Subriats writes in 2011 in a book manifesto that "the commons, cooperative logics, the ability to share are traditional expressions of alternatives to the market that have taken a new rise with the

recommendations for city hall support for the model of "platform cooperativism"⁴⁶ " and "open cooperativism"⁴⁷ " as alternative models to platform capitalism. They advocate more generally for what they call the "collaborative economy of the common" (*Economía Colaborativa Procomún*)⁴⁸ .

In spite of the adaptations to the national political context, we can thus note a common argumentative background. Faced with the various ecological, economic, financial and social problems of the capitalist production system, the best solution for public power would be to support forms of *peer-to-peer* production based on the digital commons.

4. *The empowerment of the digital citizen*

The fourth problem is the unequal capacity of citizens to fully integrate into the digital society.

At the turn of the millennium, American researchers, journalists and futurists interpreted the massification of digital uses as the ferment of a political "empowerment" of Internet users-citizens⁴⁹ . On the Web, the "digital citizen" would be amateur, participatory, productive and highly social⁵⁰ . But at the end of the decade, some of them start to describe the digital society as a space where the

Internet" (I translate) J. SUBIRATS, *Otra sociedad, ¿otra política? de " no nos representan " a la democracia de lo común*, 1. ed, Barcelona, Icaria Editorial, 2011

⁴⁶ This model developed by German economist T. Scholz advocates that it is not shareholders but platform workers who democratically own and manage their means of production, T. SCHOLZ and N. SCHNEIDER, *Ours to Hack and to Own: The Rise of Platform Cooperativism: A New Vision for the Future of Work and a Fairer Internet*, New York London, OR Books, 2017

⁴⁷ Compared to the writings of T. Scholz, "open cooperativism" advocates both a broader view of the actors involved in the cooperative (not only workers, but also users, public institutions, etc.) and that they aim to produce open digital commons. M. F. MORELL, "Cooperativismo de plataforma: remover la economía colaborativa para un futuro sostenible," on *Nexe*, December 31, 2016 (online: http://www.nexe.coop/nexe/index.php?option=com_content&view=article&id=117%3A2016-12-31-10-00-55&catid=59%3Atextos&lang=es; accessed February 6, 2018)

⁴⁸ PROCOMUNS and BARCOLA, *Declaración procomuns y propuestas de políticas para la economía colaborativa procomún*, *op. cit.*

⁴⁹ Among many others, see D. MORRIS and G. DELAFON, *Vote.com, or, How the Internet Will Revolutionize Politics*, Paris, Plon, 2002; C. SHIRKY, *Here Comes Everybody: The Power of Organizing Without Organizations*, Reprint edition, New York, Penguin Books, 2009

⁵⁰ F. GREFFET and S. WOJCIK, " La citoyenneté numérique ", *Reseaux*, n° 184-185, n °2, La Découverte, 29 August 2014, p. 125-159. On the digital society see I. COMPIEGNE, *La société numérique en question(s)*, Auxerre, Sciences humaines, 2011. On the figure of the amateur, see P. FLICHY, *Le Sacre de l'amateur. Sociologie des passions ordinaires à l'ère numérique*, Paris, Le Seuil, 2010.

market logic has taken over: individualizing, destructuring the world of work and reproducing social and political inequalities⁵¹ .

For reform entrepreneurs, a policy of support for forms of digital commons would make it possible to "remake society" while restoring "power to act" to the digital citizen:

"Digital technology strengthens the power of individual action by making new forms of sociability possible, and it also opens up new ways of rebuilding society. The very creation of the Internet, as well as the realization of many software or online projects, is based on a culture and values of reciprocity, sharing and cooperation (...) Whether on a global or local scale, this is a culture that the State, as defender of the Common Good, must support and spread. Co-creation, facilitated by digital technology, must therefore be recognized as a mode of cohesion, inclusion and education. Participation in a collective project, more than a simple networking, is indeed an opportunity to create links between individuals, to give meaning to their actions and to build new non-alienating relationships between the individual and the collective. It is around these collective projects, these commons, that the networks can be structured and become active communities. The State can directly support the field of the commons, in particular through the contribution of its agents and resources, but it can also encourage all actors to contribute, by helping to instill a culture of reciprocity and sharing, beneficial to all in the long term .

For the members of the CNNum, the digital commons carries the risk of loss of meaning, atomization and alienation within society. The digital commons are places that promote practices and a culture of reciprocity, sharing and participation in the common good. The State should therefore, if it wants to play its role as a social regulatory State, support the digital commons through the orientation of the practices of its own agents and through the digital inclusion of citizens and education based on the "literacy of the commons"⁵² .

⁵¹ For a historical and analytical article on the different meanings of the notion, see A. B. YOUSSEF, " Les quatre dimensions de la fracture numérique ", *Reseaux*, n° 127-128, n°5, Lavoisier, 2004, p. 181-209. On the individualizing aspect, see S. TURKLE, *Alone Together: Why We Expect More from Technology and Less from Each Other*, New York, NY, Basic Books, 2012

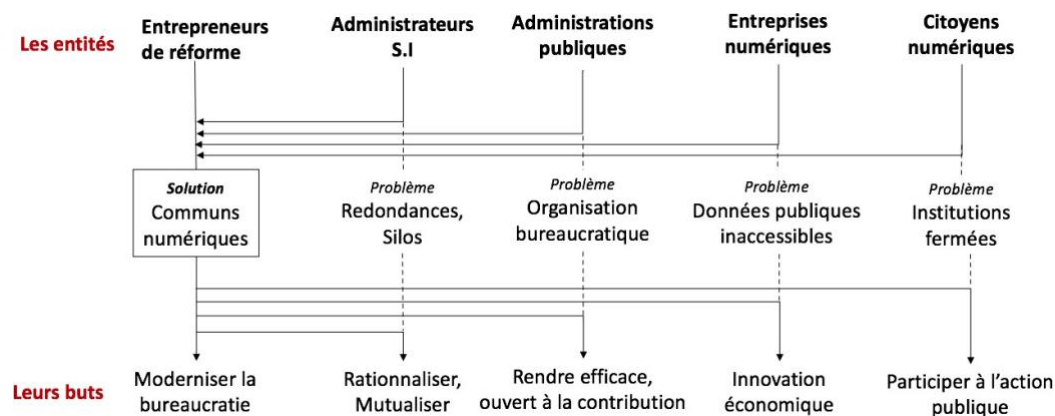
⁵² In its report entitled "Citizen of a Digital Society" (2013), the CNNum advocates using digital technology to strengthen the "power to act" of all citizens by promoting the contribution of citizens to social life and "encouraging the multiplication of formal (...) or informal collectives that self-organize to manage material or immaterial resources in common goods." The state would have a role to play here in digital inclusion policies, educational policies based on "literacy to the commons," or support by implementing a "right to contribute" to the commons. Based on the model of the right to training, this would give concrete power to act while stimulating forms of production of digital commons useful to all. CNNUM, *Citizens of a digital society - Access, literacy, mediation, power to act: for a new inclusion policy*, Paris, Conseil National du Numérique, 2013. It is also in this sense that R. Ramirez, who is president of the Council of Higher Education, explains that "access to open information and technological sovereignty are not per se a guarantee of production and knowledge and innovation for the good life. The leap would be unthinkable without placing human

B. Modernizing bureaucracy. Digital commons become a tool for public action.

"The digital transformation of the State, to bring about the State of our digital civilization, the State that our times demand, calls first and foremost for a transformation of the State itself: a rethinking of the current forms of bureaucracy⁵³ " H. Verdier, October 2018

The second register of problematization seeks to interest decision-makers by articulating the digital commons to the digital modernization of the state bureaucracy. Information systems are said to be too costly and often redundant, the closed bureaucratic organizational model would no longer solve complex problems, administrations are said to be sitting on a wealth of data that citizen-entrepreneurs are waiting to offer innovative services, and institutions are said to be too closed for citizens to participate in public action. To solve these problems, forms of digital commons are promoted by reform entrepreneurs as solutions for policymakers to modernize the state bureaucracy. They seek to turn the digital commons into "instruments of public action" capable of transforming the practices, organization and devices of the bureaucracy.

Figure 4.3. Modernizing the bureaucracy through the digital commons



1. Pooling information systems (I.S.)

talent and its capacity to generate knowledge at the center of public investment" (I translate) R. RAMIREZ GALLEGOS and P. I. TURRION, *La virtud de los comunes*, op. cit., p. 42

⁵³ P. by H. VERDIER, "Pour une administration libérée," 2018 (online: <http://www.henriverdier.com/2018/06/pour-une-administration-liberee.html>; accessed January 22, 2020)

First, the information systems (I.S.) of the administrations would be redundant and compartmentalized in silos, which would cause risks of errors and unnecessary costs.

From the 1990s onwards, most administrations in Western countries adopted digital information systems within the general framework of the reformers' discourse on "e-government"⁵⁴. These systems generally promise quality, effectiveness and efficiency in government action⁵⁵. But there are recurring problems with the many failures of large-scale I.S. projects, the additional costs generated by these projects, and the fact that they are not yet fully implemented. However, there are recurring problems with the many failures of large-scale IS projects, the additional costs generated by duplication and dependence on outsourced service providers⁵⁶.

In order to rationalize administrative action and control public spending, reform entrepreneurs argue that it would be wiser to mutualize the development of information systems. In Barcelona, the head of Decidim X. Barandiaran publishes "good practice" guides on the purchase and use of digital tools that he writes for city hall employees. In them, he praises the merits of sharing IT development among the city's municipal administrations and with other administrations⁵⁷. A similar justification is found in the Digital Ambition report, which encourages municipalities to "*develop common modules that can be freely reused and continuously improved*:"

"As common goods, they could be freely reused by all the local authorities that have participated - or not - in their development (...) The development of modules has

⁵⁴ See for example OECD, *E-Government: An Imperative*, Paris, OECD Publishing, 2004 "The advent of the information society has changed citizens' expectations, organizational structures and cultures. Governments are following suit and adopting the tools and working practices of the information society to remain responsive to citizens' needs and to reap the full benefits of e-government.

⁵⁵ C. BOUDREAU, "Qualité, efficience et efficacité de l'administration numérique à l'ère des réseaux : l'exemple québécois", *Revue française d'administration publique*, n° 131, n°3, 2009, p. 527-539

⁵⁶ In France, the State's annual expenditure on IT exceeds three billion euros, including personnel costs. The State's purchasing department makes 1.8 billion euros worth of IT purchases per year, including 650 million in services. 650 million of which are services. IT is the most outsourced area of expenditure, after catering and property maintenance. See P. CHRISTOPHLE, "Improving the outsourced management of public information systems," *Revue française d'administration publique*, No. 153, n°1, 11 June 2015, pp. 231-236

⁵⁷ "The mutualization of "common wealth" lies in the close collaboration between municipal governments and other administrations or entities for the joint development of tools for the benefit of all. Participants share needs and specifications, costs, financial resources and development teams, as well as the code developed (I translate) J. RUIZ *et al*, *Guia sobre sobirania tecnològica a l'Ajuntament de Barcelona*, *op. cit.* See also J. RUIZ *et al*, *Guia de compra pública de TIC de l'Ajuntament de Barcelona*, *op. cit.*

many advantages, such as the pooling of local authorities' resources to develop certain services⁵⁸.

This problematization is also mobilized to promote the National Address Base since there are more than ten address bases within the French administration, which increases the costs of production, maintenance and the risks of error⁵⁹ (see chapter 8).

2. Open data to encourage self-organization

Secondly, administrations are said to be full of public data that they keep jealously, which leads to a lack of transparency and hinders economic innovation.

In the United States, the opacity of the federal government, especially after the two presidencies of G. W. Bush, was challenged by two currents in the late 2000s. The first is the "*good government*" tradition, in which academics, public officials and citizens' associations are campaigning for the adoption of good practices by public administrations and governments. The second is more recent and is the work of experts and techno-political movements in civic-tech and open data, also advocating transparency, but for economic rather than political reasons, at a time when data is beginning to be described as the "new black gold" and the fuel of 21st century growth⁶⁰.

In response to these two issues, some American jurists and technopolitical experts, such as L. Lessig and T. O'Reilly, have been working since 2007 to promote the opening of public data (*open data*)⁶¹. Some of them want to institute public data as

⁵⁸ B. THIEULIN, V. PEUGEOT and D. KAPLAN, *Ambition numérique : pour une politique française et européenne de la transition numérique*, *op. cit.*

⁵⁹ P. Pezziardi explains that "the case of the national address base is also instructive. Until recently, France had five address databases, each with an error rate of up to 15%. This may seem trivial, but it means that emergency services arrive late, public and private operators have difficulty coordinating their work, and very high-speed broadband cannot be deployed. In short, it's invisible waste that creates costs. P. PEZZIARDI and H. VERDIER, "Des 'start-ups d'État' pour transformer en souplesse l'Administration," *Le journal de l'école de Paris du management*, n°120, 7 July 2016, pp. 22-29

⁶⁰ **Beth Noveck** "There is a world of 'good government groups' that existed before technology. (...) And on the other hand the techies and the lawyers focused on data ownership and innovation. And these two groups were not talking to each other and we tried to make them cohabit", interview 16 June 2021.

⁶¹ The first principles of *open data* were established at the 2007 meeting in Sebastopol, California, organized by Tim O'Reilly, among others. About forty actors participated, including L. Lessig and Aaron Swartz, an open knowledge activist known, among other things, for co-founding the community link-sharing site *Reddit*. On the history of the construction of this category of public action, see the first part of the thesis of S. GOËTA, *Instaurer des données, instaurer des publics Une enquête sociologique dans les coulisses de l'open data*, Télécom ParisTech, 2016

open commons, and public institutions should guarantee the right of access to citizens⁶². Three main reasons are put forward: to update the principle of transparency in a digital context, to allow companies to seize open data to stimulate growth and to allow private actors to propose innovative services of general interest⁶³. It is on these last two points that technologist T. O'Reilly coined the concept of "*government as platform*". Platforms in the digital economy succeed, he says, because they provide an infrastructure from which citizen-entrepreneurs can create innovative applications while capturing a share of their value. Governments should adopt the same platform strategy to reconnect with "the early days of American history" and the American political tradition of self-organization of society.

T. O'Reilly - "The main point of government as a platform is to encourage the private sector to create applications that the government has not considered or does not have the resources to create. Open data is a powerful way to enable the private sector to do just that⁶⁴."

He presented his concept at the Gov 2.0 conference (2009) attended by Vivek Kundra. When Kundra arrived in the Obama administration as CIO alongside B. Noveck, he undertook to place the data opened by federal agencies under a Creative Commons license.

In France, the proposal of a *government as a platform* and its most emblematic *open data* policy is receiving a mixed reception. The dispute between the digital sociologist Henri Boullier and H. Verdier and N. Colin on the occasion of the release of their book *L'âge de la multitude* (2012) is a good illustration. The two authors explain that open data policies would contribute to strengthening the power of action of citizens.

⁶² Jordan Hatcher wrote in 2007 one of the first open data licenses called *Open data commons*. In 2009, the management of this license is transferred to the *Open Knowledge Foundation*. It leads to one of the most used licenses for ODbL databases, called "*open data commons open database license*". The term "*commons*" appears regularly in mail exchanges. And associations like Civic Commons are involved. See <https://opendatacommons.org/licenses/odbl/>. And for email exchanges <https://groups.google.com/g/open-government/search?q=%22commons%22>, visited on May 15, 2021.

⁶³ In their now classic article, Yu and Robinson make a good point about the difference between open government policies that aim to increase transparency in public action and open data technologies that aim to disseminate public data to stimulate innovation. See H. YU and D. G. ROBINSON, "The new ambiguity of 'open government,'" *UCLA Law Review*, vol. 59, n°178, March 28, 2012 (online: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2012489; accessed February 28, 2017)

⁶⁴ T. O'REILLY, "Government as a platform," in D. Lathrop and L. Ruma, *Open Government: Collaboration, Transparency, and Participation in Practice*, n. 1., O'Reilly Media, Inc. 2010.

"We will then see before our eyes public services without administration, self-organized by communities of citizens taking their part of their operation through their contribution and interactions⁶⁵ .

H. Boullier reacts strongly to the book in an article published on InternetActu. He denounces this approach by the "multitude" as a Trojan horse that hides in reality a liberal policy inspired by American technopolitics: under the guise of self-organization of society, *open data* will only lead to the reduction of the perimeter of the State while favoring the large platforms⁶⁶ . On the contrary, he defends that :

"The government of digital technology must be based on support for the pluralism of solutions, which means, given the financial power of the large groups and dominant platforms, public support for other actors who represent other models, who explore other avenues (...) as do thousands of open source developers, cooperators of all kinds of non-commercial or non-financialized platforms⁶⁷ .

The controversy over public *open data* policy is thus based on the tension surrounding its audience. Either it targets the market, and in particular the large companies that will be best equipped to exploit open data and offer innovative services for a fee. Or it targets civil society and in particular the communities of "ethical" developers, so that they develop services of public interest. Here we find the tension already at work in the digital world of the 1990s between the promotion of libertarian-individualist or libertarian-communitarian self-organization (see Chapter 2). To get out of the argument, H. Verdier "pleads guilty" to not "*developing enough the alternative experiences of the hacktivist movements and the citizen Internet*"⁶⁸ , but defends that his vision of the platform-state is not a withdrawal, but a reaffirmation of the state. It is in this perspective that we must understand the evolution of H. Verdier's reformist narrative in the following years. From this date on, he articulates the figure of a platform-state sovereign over its data with the form of the digital commons:

⁶⁵ N. COLIN and H. VERDIER, *L'âge de la multitude. Entreprendre et gouverner après la révolution numérique*, *op. cit.* , p. 257

⁶⁶ D. BOULLIER, "The Age of Predation," on *InternetActu.net*, 2012 (online: <http://www.internetactu.net/2012/09/07/1e2%80%99age-de-la-predation/>; accessed May 11, 2017). This criticism is made elsewhere, notably in the United Kingdom, by sociologist E. Ruppert, where open data policies seem to be put at the service of the "big society" project in which the state encourages "civil society" to self-organize by withdrawing from some of its missions.

⁶⁷ D. G. BOULLIER, "Answers to answers: the age of the multitude vs. the age of predation," on *Club de Mediapart*, September 8, 2012 (online: <https://blogs.mediapart.fr/dominique-g-boullier/blog/080912/reponses-aux-reponses-lage-de-la-multitude-vs-lage-de-la-predation>; accessed June 8, 2018)

⁶⁸ H. VERDIER, "Boullier vs. the Multitude," at *henriverdier.com*, September 7, 2012 (online: <http://www.henriverdier.com/2012/09/sciences-po-contre-lage-de-la-multitude.html>; accessed June 3, 2021)

"This is a change in philosophy of open data: we have moved from a showcase to satisfy the demand for transparency to the idea that data is an essential common good, and one that must be co-produced and co-used. The State benefits from joining forces with a community of people who know how to use data⁶⁹ .

The image of the digital commons allows H. Verdier to undo the critical takes of those who denounce the platform-state as a liberal disengagement of the state on the one hand, and as a promotion of the private market on the other ⁷⁰ . "*Open government cannot be a retraction of public power. On the contrary, it must be a project of emancipation, for which, by supporting the commons, public power can take its full place.* Thus, by establishing data as "common goods", he reaffirms the importance of the State in the production of its informational infrastructure, which it does not delegate to a "multitude", but which it co-produces with "communities"⁷¹ .

3. Collaborating to make jurisdictions more efficient

Third, the closed mode of bureaucratic organization would no longer allow administrations to solve the complex problems of the contemporary world by preventing citizen-experts from collaborating with them.

The greater or lesser autonomy of public administration vis-à-vis society is a debate that runs through the history of the construction of modern states, finding different outcomes in each country⁷² . B. B. Badie and P. Birnbaum make the French and American administrations, respectively, the ideal types of closed-autonomy and open-dependent administration vis-à-vis society⁷³ . It is therefore not surprising that it is in the United States that the question of "*open government*" found new relevance at the end of the 2000s in the light of new communication technologies. B. Obama made this theme a strong argument in his first presidential campaign. Beyond the problem of transparency, it is especially the lack of participation and collaboration that he points the finger at for questions of efficiency and

⁶⁹ H. VERDIER, "Henri Verdier 'Data is an essential common good,'" interview by C. Moal and I. Repiton, 10 December 2014, alliancy.fr (online: https://www.alliancy.fr/it_leur_parle/bigdata/2014/12/10/henri-verdier-les-donnees-sont-un-bien-commun-essentiel; accessed 29 October 2019)

⁷⁰ See in particular P. PEZZIARDI and H. VERDIER, *Des Startup d'Etat à L'Etat plateforme*, op. cit.

⁷¹ P. by H. VERDIER, "Digital commons for emancipation and action," at *henriverdier.com*, 6 December 2016 (online: <http://www.henriverdier.com/2016/12/des-communs-numeriques-pour.html>; accessed 18 August 2017)

⁷² See in particular P. ROSANVALLON, *La légitimité démocratique*, Paris, Éditions du Seuil, 2008, p. 59-100

⁷³ B. BADIE and P. BIRNBAUM, *Sociologie de l'état*, Paris, Pluriel, 1983, p. 173-218

democratization of public action. Here is what he wrote in the memorandum on *open government* published on the first day of his inauguration.

B. Obama "The challenges we face, from saving the planet to eradicating poverty, are simply too big for government to solve on its own. We need everyone to pitch in... Government departments and agencies must use innovative tools, methods and systems to work with each other, at all levels, and with non-governmental organizations, businesses and individuals in the private sector⁷⁴ .

B. Noveck, the jurist in charge of this "open government" policy, takes up this problematization to articulate the vocabulary and spirit of the digital commons⁷⁵ . Schematically, she proposes that public institutions take the socio-technical form of a *wiki* page.

B. Noveck - "Consider the potential of collaborative editing technologies, known as wikis (of which Wikipedia is the most famous example). These technologies allow a networked team of individuals to write a document together. Rather than inviting participants to comment on a document or regulation that has already been drafted after the fact, the government agency could tap into the public's expertise earlier in the process and give it more leverage. Again, these experiments should replace traditional "closed-door" practices with new technology-based ways of working that allow citizens to decide for themselves whether to participate based on their expertise and enthusiasm... In the same way that the Mozilla Foundation relies on its community of volunteers (...) the CTO could look to a network outside the administration⁷⁶ ."

According to her, the form of the digital commons would make it possible to transform the relationship between the administration and citizen-experts into a form of "collaborative democracy⁷⁷ ". The arguments put forward concern both the efficiency of public action and the principle of participatory democracy. This perspective influences in particular H. Verdier in France.

4. Democratizing public institutions from below

⁷⁴ (I translate) B. OBAMA, "Memorandum: Transparency and Open Government", January 29, 2009

⁷⁵ **Beth Noveck** "We were responding to the government shutdown, it was the values of the commons but not the academic language of the commons" (interview, June 16, 2021). She wants to "explain how to use technology to enable everyone to get their hands dirty and create more effective public institutions." In her book, she illustrates her point with an experiment, *peer-to-patent*, that she conducted with the Federal Patent Agency. It consisted of involving citizen-experts in the patent granting process through a digital platform B. S. NOVECK, *Wiki Government, op. cit.* , p. 13

⁷⁶ (I translate) *Ibid.* , p. 150-184

⁷⁷ Of which she dedicates the history in an entire chapter of her book. *Ibid.* , p. 128-142

Fourth problematization: public institutions would face growing demands, reinforced in a digital context, linked to the participatory imperative⁷⁸. However, even when they seek to involve citizens through collaborative digital devices (such as the *wikigovernment* exposed by Beth Noveck), they would remain in a top-down logic.

In Western countries, the decentralization of political power outside the nation-state is a political demand as old as the nation-state itself⁷⁹. But it has been revived since the end of the 1960s by at least two currents: first that of the "neo-communalists" and then that of the Internet world⁸⁰. But it was not until 2015 that a political list came to power in a large city (Barcelona) claiming to be libertarian municipalism and advocating horizontal forms of organization inspired by the Internet world⁸¹.

However, for Barcelona's reform entrepreneurs, forms of digital commons allow for the democratization of the city council from below by opening up the governance of its digital infrastructure⁸².

X. Barandiaran - "The ultimate goal is to displace the technocratic inertia of the administrative machine and the market in favor of a participatory democracy of the multitude. Recovering, in this sense, popular sovereignty over the administrative body and its executive function, while recovering technological sovereignty through

⁷⁸ L. BLONDIAUX, *Le nouvel esprit de la démocratie : Actualité de la démocratie participative*, Paris, Seuil, 2008

⁷⁹ See for example the work of R. GRAHAM, *Anarchism: A Documentary History Of Libertarian Ideas: From Anarchy to Anarchism*, Volume One: From Anarchy to Anarchism, Montreal ; New York, Black Rose Books, 2013

⁸⁰ F. TURNER, *Aux sources de l'utopie numérique. From counterculture to cyberculture*, Stewart Brand, a man of influence, L. Vannini (trans.), Caen, C & F Edition, 2013

⁸¹ Ada Colau, on behalf of Barcelonà en comú, writes a book with the wife of Mr. Bookchin D. BOOKCHIN and A. COLAU, *Fearless cities: a guide to the global municipalist movement*, Oxford, New Internationalist, 2019. These actors criticize the concentration of decision-making power in the hands of the state and defend the democratization of public institutions from below M. BOOKCHIN, *For a libertarian municipalism*, Lyon, Atelier de création libertaire, 2018 See also H. NEZ, "The new municipalism in Spain: changing power from the local scale?", *Mouvements*, n° 94, n° 2, La Découverte, 18 June 2018, p. 55-65. and I. BLANCO and R. GOMA, *El municipalisme del bé comú*, Primera edició, Barcelona, Icaria Editorial, 2016.

⁸² In Spain, the 15M movement has the dual distinction of making strong demands related to the democratization of public institutions and making massive use of digital devices to organize "democratically." For some researcher-activists who are part of it, the movement itself is analyzed as a digital commons, organizing in a decentralized and communal way through communication technologies. L. MORENO-CABALLUD, "Desbordamientos culturales en torno al 15-M", *Teknokultura. Revista de Cultura Digital y Movimientos Sociales*, vol. 10, n°1, March 31, 2013, pp. 101-130; C. DELCLOS *et al.*, *15MP2P. Una mirada transdisciplinar del 15M*, Universitat Oberta de Catalunya *et al.* (eds.), 1^{re}ed, Barcelona, Universitat Oberta de Catalunya, 2014.

participatory design, collaborative development and community support of an infrastructure that can be reappropriated⁸³ ."

Here is its problematization: the "administrative machine" must be democratized from below, i.e., it must be administered by citizens who are outside the institution of the local state. The digital commons propose decentralized technologies, citizen input and open governance structured around the principle of participatory democracy. Thus, transforming the "administrative machinery" through the digital commons is the solution to democratize it from below both technically and politically. It is by this reasoning that X. Barandiaran justifies the central importance for Barcelona City Council of developing the Decidim software⁸⁴ (see chapter 8).

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We thus see two registers on which reform entrepreneurs "problematize" digital issues in order to articulate digital commons (horizontal axis of our graph, see Figure X). The first register focuses on the need for the state to regulate the digital environment in the face of the damage caused by digital capitalism. The digital commons are presented as "categories of public intervention" that can be used to mark out and guide this intervention. The second register of problematization relates to the injunctions to digital modernization of the bureaucracy. The digital commons are presented here as "instruments of public action". In both cases, the principles of justification mobilized are quite different. We have broken them down into three categories of action for the State: "integration", "cooperation" and "decentralization" (we have placed them on the vertical axis of our graph). "Integration" corresponds to a (re)assertion of the State's prerogatives. The principles justifying "integration" are either in the tradition of "statism"⁸⁵ or in that of a "rational state"⁸⁶. In contrast, "decentralization" corresponds to a delegation of state prerogatives to a self-organized society. The

⁸³ X. BARANDIARAN, "Tecnopolítica, Municipalismo y Radicalización Democrática," in *Ciudades Democráticas. La revuelta municipalista en el ciclo post-15M*, Barcelona, Icaria Editorial, 2019, pp. 173-207

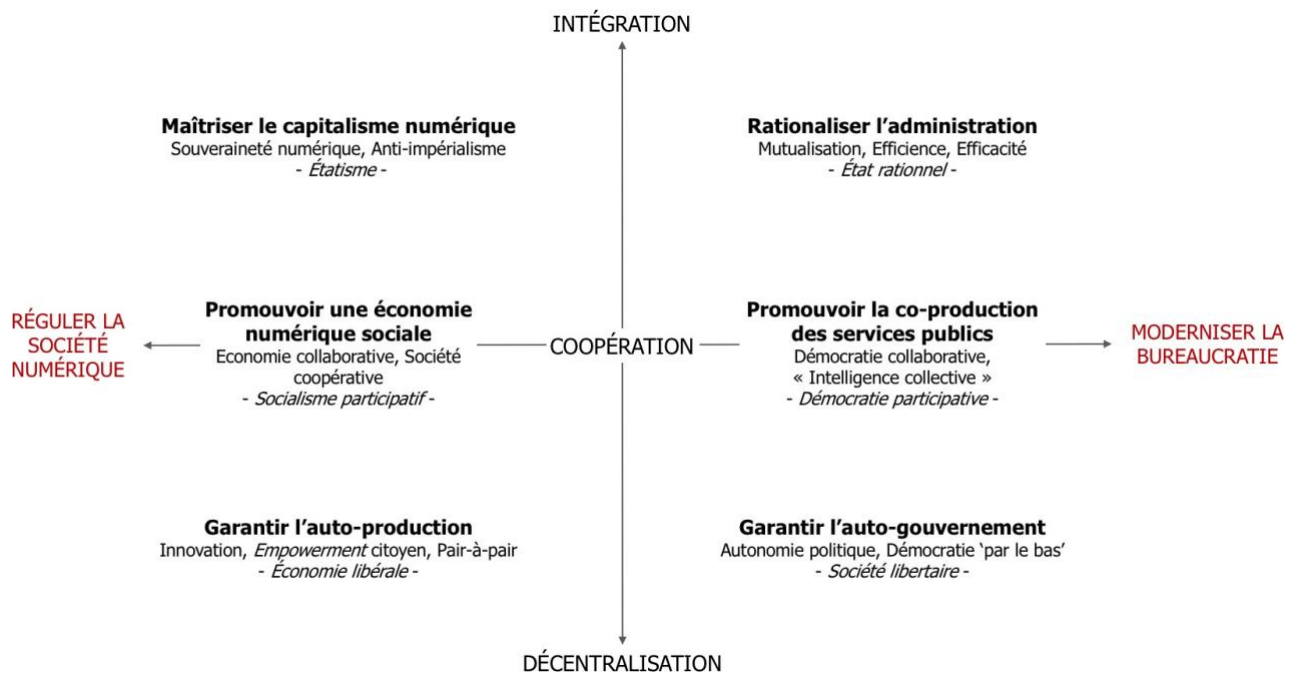
⁸⁴ X. BARANDIARAN, A. MONTERDE, and G. PIN, "Decidim.barcelona: autonomia, participació i programari lliure," on *ArnauMonty*, June 28, 2016 (online: <https://arnaumonty.wordpress.com/2016/06/28/decidim-barcelona-autonomia-participacio-i-programari-lliure/>; accessed June 22, 2020)

⁸⁵ By this we mean a whole political tradition that justifies the need for state intervention to regulate society. This tradition goes from Hobbes to certain neoclassical economists who consider that the State is necessary to set up the conditions for a free and undistorted market (what we call ordoliberalism).

⁸⁶ P. BEZES, *Reinventing the State: the reFrench administration (1962 - 2008)*, Paris, Presses Universitaires de France - PUF, 2009

principles justifying "decentralization" are either part of a "liberal" economic tradition or a "libertarian" political tradition in the sense of a *self-governing society*. Between the two, the principle of "cooperation" corresponds to a co-production of state prerogatives with society. The principles of justification of "cooperation" are either in the tradition of "participatory socialism"⁸⁷ " or in the political tradition of "citizen participation"⁸⁸ " in the co-production of public services.

Figure 4.4. Justification records of reform contractors



Reading - in bold the reform project, below the justifying principles and in *italics* the political tradition.

⁸⁷ E. O. Wright calls "participatory socialism" the combination of elements of the social and solidarity economy on the one hand and state socialism on the other: "the state and civil society jointly organize and control the production of goods and services." He gives the example of the participatory budget of Porto Alegre where citizen associations are responsible for the implementation of actions financed by the city council but decided by the citizens. E. O. WRIGHT, *Real Utopias*, V. Farnea and J. A. Peschanski (trans.), Paris, La Découverte, 2017, pp. 230-232

⁸⁸ F. LAFARGE, F. LARAT and M. MANGENOT, "La démocratie administrative", *Revue française d'administration publique*, vol. 1-2, n°137-138, 2011

CONCLUSION

This presentation has allowed us to answer our questions. Four factors can help us understand the way in which commons are translated into the bureaucratic field in the different political spaces studied. The first factor is the arrival of new political personnel from or close to the digital commons movement, which structures a "pro-digital commons axis" within the administration. The second factor is the arrival of new political staff from or close to the digital commons movement, who are structuring a "pro-digital commons axis" within the administration. The second factor is the change of majorities with a reformist or radical political agenda following the economic crisis of 2008. The third factor is the appearance of "public problems" endogenous and exogenous to the administration, linked to digital issues. During this period, their perceived degree of seriousness increases, as does the power of digital capitalism, which is beginning to be problematized as a threat to the sociability of citizens, the growth of national companies and the sovereignty of administrations. The fourth factor is the work of reform entrepreneurs. They feed into and build on these "public problems" to interest policymakers in digital commons, which they present as the category of public intervention that should be championed, or the instrument of public action that should be adopted, to best address these problems. We hypothesize that the absence of any of these four factors limits the development of reform projects to transform the state through the digital commons. We return to this point in the general conclusion.

The second conclusion we can draw from this chapter is the displacement of the state test. Digital commons become the content of reform projects. The reform entrepreneurs construct two registers of problematization to which they articulate the digital commons. The first concerns the regulation of multiple problems of digital society in the face of digital capitalism. By protecting and supporting the development of forms of digital commons in society, the State could make its administrations more sovereign, its economy more innovative, and its citizens more empowered. This register includes some of the proposals formulated since the late 1990s by the various branches of the digital commons cause (see 1^{ère}). The second register is more original. It relates to the problems of bureaucracy. By embedding digital commons in the administration, the State could modernize its bureaucracy by making it more efficient, collaborative, open to the collective intelligence of citizens, and democratic by sharing the governance of its systems. This cognitive work, carried out since 2008 by reform entrepreneurs, thus displaces the test of the State. The prefigurations of the State

constructed since 1990 by the digital commons movement are beginning to find support among elected officials, directors of administration and public agents. They are becoming more precise while covering more extensive domains. However, they remain at the level of images conveyed in blog posts, formulations defended in speeches or proposals contained in the lines of public reports. It is still difficult to perceive in concrete terms the state arrangements capable of satisfying this reformist movement and putting an end to the state test.

In addition, and this is our third conclusion, the digital commons are put at the service of rather heterogeneous reform projects, drawing on diverse intellectual traditions, which leads to a certain amount of uncertainty about their justification. First, there are tensions at work between different principles of justification. For example, H. Verdier hesitates to articulate the "platform state" and the institution of public data as "open digital commons" with a principle of decentralization oriented towards economic liberalism or a principle of cooperation oriented towards the democratization of administration. Secondly, there are differences in the justifying principles between the different countries. For example, the justification of economic liberalism is more widely used in the United States than that of the self-government of society, which is used mainly in Barcelona. Finally, there is an adaptation of each justification principle according to national and local political contexts. Let us take the case of the principle of self-organization of peer-to-peer production to illustrate this point. It is articulated, in Ecuador, to Rafael Correa's discourse on "21st century socialism", to the anti-imperialist struggle and to the indigenous vocabulary. While in Barcelona it is articulated with a critique of platform capitalism, the anarchist tradition and the social and solidarity economy. All this shows that the forms of digital commons are put at the service of heterogeneous reform projects that nevertheless have a common claim: to give back power to citizens to act in the economic and political space in the digital regime.

The two sets of registers we have uncovered have led to two types of reformative action aimed at closing the ordeal. The first, relating to the regulation of society, has involved legal work seeking to enshrine in law the defense and promotion of digital commons in society. The second, relating to the modernization of bureaucracy, has involved experimentation with embedding digital commons in the administration.