



Surveillance capitalism: an unstoppable machine?

Questioning responsibility in the digital age

by

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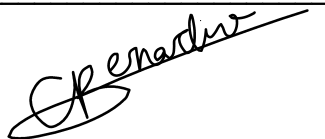
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Abstract

This contribution presents a reflection about the establishment and perpetuation of 'surveillance capitalism', seen as a dangerous outcome of society's evolution. It emerged in the context of new technologies' progress, of information's commodification and of logic of accumulation and benefits. New actors, such as Internet companies and corporations, entered the scene and reorganised the balance of power in their favour, using surveillance. Through critical analysis of content from a scientific corpus of texts and in a political economic perspective, this paper points out the capitalistic way of thinking, invading human behaviour, which is effectively leading to drifts and infringing on the fulfillment of individuals' needs. Therefore, the paper concludes with the concept of the 'common', for individuals to reappropriate their responsibility, to actually get out of the vicious circle thinking that, by repeating the same patterns, we will get different results.

Keywords: surveillance capitalism, behavioural knowledge, Internet companies, responsibility, the common.

Résumé

Cette contribution présente une réflexion à propos de l'établissement et la perpétuation du capitalisme de surveillance, compris comme une dérive de l'évolution de la société. Le contexte d'émergence se caractérise par le progrès technologique, la marchandisation de l'information et la logique d'accumulation et de profits. De nouveaux acteurs, tels que les entreprises privées du secteur Internet, apparaissent et réorganisent l'équilibre du pouvoir en leur faveur, par le moyen de la surveillance. A travers une analyse critique d'un corpus de textes scientifiques et une perspective économique politique, ce texte met en lumière l'invasion de la logique capitaliste dans les comportements humains, qui entrave la satisfaction des besoins des individus. Ce texte conclut alors sur le concept de 'commun' qui permet aux individus de se réapproprier leur responsabilité, afin de sortir du cercle vicieux, guidé par la pensée qu'en réalisant des actions similaires, il est possible d'obtenir un résultat différent.

Mots-clés : capitalisme de surveillance, savoirs comportementaux, sociétés d'Internet, responsabilité, le commun.

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Introduction

In an interview by the Economist in June 2020¹, while the Covid-19 pandemic was unfolding in the world, Antonio Guterres, United Nations' (UN) Secretary General, said '*There are two dimensions that I believe are absolutely crucial for the intervention of the UN in the future, one is climate change and the other is the digital world.*' However, while climate change is at the heart of political and policy debates, the digital revolution and its consequences seem not as much discussed. Despite popular scandals, such as Snowden's disclosure of NSA surveillance programme in 2013 or Cambridge Analytica's use of Facebook's data to influence elections in 2018, highlighting the threats behind the use of new technologies, tackling the digital challenge is only at the beginning. Breach in privacy seems one of the most recurring popular concerns as "The Social Dilemma", a Netflix documentary, brought it out. After watching it, I started to wonder how we got there and I decided to think about it and share my reflections to question the perceived increasing pervasiveness of digitalisation and social media.

Digitalisation: new technologies and revolution

There is no doubt in the literature that the times we are living in are characterised by exponential technological progress based, on the one hand, on digital material, software and network; even if computers appeared decades ago (BRYNJOLFSSON & McAFEE, 2014: 17). Computing science and softwares entered the division of labour and were key in the creation of a system able to increasingly process more information. It also had an increasing calculating capacity to do always more tasks thanks to algorithms (ibid.).

On the other hand, this progress has a second important component: the Internet. According to the Oxford dictionary, the Internet is '*a global computer network providing a variety of information and communication facilities, consisting of interconnected networks using standardized communication protocols*' (LEXICO.COM). In fact, the Internet and computers were firstly used by US Defense departments during the Cold War; then, it extended to the universities' and private industries realm in the US, through ARPANET in the 1970's. In the 1990's, the World Wide Web appeared and led to the democratisation of the Internet (FOSTER & McCHESNEY, 2014: 22). It became central in the process of capital accumulation, mastered by '*Internet monopolies*', such as Apple, Google and Microsoft (ibid.).

The pace of this development was really fast, as explained by the Moore Law. It is illustrated through an exponential evolution, allowing always cheaper calculating capacity (BRYNJOLFSSON & McAFEE, 2014: 52) in a context where, with financialisation and globalisation, an increasing part of exchanges dematerialised into financial channels, driven by speculation and consumption (RITZER & JURGENSON: 2010); while it extended all around the world, in a liberal logic, encouraging free trade and low tax barriers. Nowadays, some authors talk about the '*Second Machine Age*', with the emergence of computers and digital technologies, which started to replace humans for intellectual activities

¹ Cf. <https://youtu.be/l73yTLza95s>

(BRYNJOLFSSON & McAFEE, 2014: 15). J. Rifkin, a well-known American economic and social theorist, called this technological turning point the '*Third Industrial Revolution*' (RIFKIN: 2011). The context that triggered this new era is made of three independent processes according to M. Castells, a sociologist specialised in research about information, globalisation and communication: 1. '*The Information Technology Revolution*', 2. '*The restructuring of capitalism and of statism in the 1980s*' and 3. '*The cultural social movements of the 1960s, and their 1970s aftermath*' (CASTELLS, 1996: 7). Finally, references of time and space have totally been redefined and hence, started to conflict with biological time. (ibid.: 13). At the same time, space of flows and space of places reorganised themselves, parallelly making and being challenged simultaneously by power relations (ibid.: 15).

Indeed, the context and the scientific progress were an important step for digitalisation to occur. For A. Casilli, digitalisation is a '*social and technological dynamic changing human productive gesture into several micro-operations underpaid or free, to fuel an informational economy based principally on data extraction and delegation of devalued productive tasks to human operators*' (CASILLI, 2019: 18). This definition is focused on labour but is the most conceptually complete I found.

Age of Access: (hyper)capitalism and enlargement of commodification

Some authors (CASILLI, 2019; BRYNJOLFSSON & McAFEE, 2014; RIFKIN, 1995; O'REILLY, 2005) effectively highlight the economic implications of digital innovations. Now, knowledge can be codified and stored under the form of data, into computing chips and on clouds, known as immaterial places on the Internet. Consequently, with an unprecedented capacity to stock data, it seems that we went from a regime of scarcity to a regime of abundance, which totally reorganised our ways to produce and consume, immaterially and materially speaking (BRYNJOLFSSON & McAFEE, 2014). Then, digitalisation is seen as a necessary process to cope with competitiveness in an innovative world, for benefit purposes (KENNEY & ZYSMAN, 2016: 61). Based on neoclassical economic theories, the market has been more or less leading how individuals organise themselves since humans started to exchange goods. From this assumption, the rational choice theory assumes that actors are rational, making choices on the calculation of costs and benefits. These exchanges are based on the roots of private property and accumulation of capital. The inherent goal is economic growth, through the creation of profits, made during the production process and exchanges on markets. In this process, capital is exploited to produce benefits.

Overall, the impact of digitalisation on economic exchanges is well illustrated through the concept of '*liquidity*', firstly introduced by Z. Bauman in 2000. It shares an idea of more flexible and faster changing flows; which would be the central feature of modernity (BAUMAN, 2000). This liquidity is allowed by an increasing interest in the consumption of immaterial services more than material goods, combined with the rise of the importance of knowledge and digitalisation of economies (ibid.). It results in the creation of always more risk and uncertainty. Bardhi & Eckhardt (2017) used the '*liquidity*' concept, and applied it to consumption. They stated that it became characterised by an ephemerality of attachment to the objects of consumption, an access more valued than ownership and the immateriality of the objects of consumptions; illustrated through the prevalence of experience as a

commodity and of ways of exchanging them (BARDHI & ECKHARDT, 2017). So, we entered an age of *'hypercapitalism'*² characterised by a faster pace of innovation and production, and the evolution of exchanges' objects: knowledge, culture and experiences are economically produced and given access to (RIFKIN, 2000: 14). This symbolises the 'liquid' entry of capitalist logic into always more dimensions of human life.

Moreover, one of the striking changes in this new era is that networks are replacing markets, and access is replacing ownership on the markets (RIFKIN, 2000: 10). Nowadays, exchanges are increasingly happening between consumers and firms, but also between consumers and consumers, through networks. In parallel, according to J. Rifkin, it is incrementally about regulating access to goods and services, rather than exchanging property rights (ibid.: 11). Besides, the author considers a shift of interest from material capital to intellectual capital, which can be made temporarily available through granted access. In other words, *'The Second Machine Age'* allows for wider, quicker and freer consumption, not only of fuel and energy, but also of knowledge, entertainment and information. (BRYNJOLFSSON & McAFEE, 2014: 18).

Prosumption: platforms and Marx's value theory

Knowledge is increasingly given an exchange value, as understood by Marx in his theory of value (MARX, 1867). To briefly remind this theory, he distinguished between use value, which is the perception the consumer has of the utility of a good or a service; and the exchange value, which is the constructed price attributed to a good or a service, created thanks to the process of labour, and more precisely from surplus-labour, during an exchange between a consumer and a producer. Exchange value is a condition of profits. Effectively, *'profit is made if the amount of exchange value realized on sale is superior to the sum of the prices of the inputted resources'* (BOWMAN & AMBROSINI, 2000: 5). According to Marx, profits can be made out of the surplus labour realised by workers, which are paid for the time of the necessary labour to reproduce themselves. With technological progress, this time got reduced; allowing the surplus labour time to get bigger. Hence, profits increased in a society driven by trade and production.

Then, in a society driven by consumption, knowledge is increasingly exchanged on platforms, functioning in the logic of networks. It is often called Web 2.0, *'the network as platform, spanning all connected devices'* (O'REILLY, 2005). It has mainly a role of intermediary, thanks to algorithms and data. According to J. Cohen (2017), the main shifts are *'the propertization of intangible resources, the concurrent dematerialization and datafication of the basic factors of industrial production'* (COHEN, 2017: 1) which led platforms to replace markets rather than enter them; even if not entirely. They allow extracting value through the qualification of information by users, the monetisation of data of users and the automation of artificial intelligence thanks to users contributions; part of what is called 'digital labour' (CASILLI, 2019: 20). Platforms are multi-sided, based on massive

² According to P. GRAHAM (2000), hypercapitalism is characterised by the subsumption of more and more aspects of life, meaning knowledge and identity become systemic capital (143). *'Hypercapitalist production processes have commodified and industrialised almost every conceivable aspect of human social life, including life, birth, death, sex and thought.'* (138) And *'immediate production, consumption, distribution and exchanges' are facilitated by new media 'on a planet-wide scale with a mass and immediacy that is historically unprecedented'*. (139)

data collection, and a tool to capture value from the use that users make of them (ibid.: 80). Finally, platforms, combined with liberal competitiveness, are one of the means that allow the marginal costs of production and exchanges, attributed to labour and material resources, to be reduced to almost zero; enhancing surplus value and pushing capitalism to the extreme, as J. Rifkin explains in 'The Zero Marginal Cost Society' (2014).

On Web 2.0, it is striking to see how producers of content and users are becoming indistinct, until being called '*producers*' (CASILLI, 2019: 205). The similar term '*prosumer*' was firstly introduced by A. Toffler to blur the false binary between consumption and production processes (TOFFLER, 1980). This economic trend goes hand in hand with the digitalisation process and the reduction of marginal costs, pushing for increasing unpaid work and free products (RITZER & JURGENSON, 2010: 14). It changes the traditional way capitalism has been set up and involves consumers into the process of production. As it will be further explained in the paper, with digitalisation, exchanges began to be '*prosumption*'-driven (ibid.). These processes are not absolutely new, but this is the first time that they are being active and systematised on a massive scale. For some, it seems that the Internet of things makes possible a global transformation of humanity, allowing us to pursue a sustainable and abundant future (ibid.). Similarly, the Internet can also be seen as an infrastructure facilitating collaborative common, looking for inclusivity, universal access, and sustainable way of living (RIFKIN, 2014: 35).

Power relations: corporations and surveillance

Finally, this new economic organisation contributes to changing power relationships and has an impact on consumers choices (BAMBERGER & LOBEL, 2017: 1051). It '*monetises human effort and consumer assets*' (KENNEY & ZYSMAN, 2016: 62). Within digitalisation, dimensions of power have been mainly articulated around the concept of surveillance, which '*is part of the way we run the world in the twenty-first century*' (LYON, 2008). According to D. Lyon, who is a reference in surveillance studies, surveillance is '*seen as the growing role of information within large-scale bureaucratic organizations*' (ibid.). With new technologies' capacities, the efficiency of the administration has been enhanced. However, this has some downsides too, if it is used for '*greater goods*' and '*profitability*' requiring '*unusual or extraordinary practices*' (ibid.), potentially challenging data and privacy security (RIFKIN, 2014: 29). According to Lyon, this also produces the reinforcement of inequalities and '*threatens social cohesion and solidarity*' (LYON, 2008). Nonetheless, it is worth noting that surveillance is not only about governments and bureaucracies, but also about marketing and corporations; where it links with capitalism.

Regarding marketing surveillance origins, in the 1950's, the US had to absorb economic surplus and put in place marketing efforts, opening a new kind of capitalism based on consumerism (FOSTER & McCHESNEY, 2014: 8). Marketing, to be effective, had to organise a '*system of customer surveillance*' and '*psychological manipulation of populations*' (ibid.: 8). Parallely, it contributed to the '*consolidation of monopoly capitalist accumulation*' (ibid.: 9) that is, the subject of resources mobilisation to be sustained along the years. When the Internet started to be developed, it was hugely used in defense policies, with the example of the funding of the Advances Research Projects Agency, initially dealing with surveillance satellites (ibid.: 11), and then, in the 2000's, with digital surveillance and drone technology. Moreover, the intertwining of the Internet and defense emerged as the

'government-corporate surveillance complex' (ibid.: 23). Combining both trends, it is possible to talk about *'surveillance society'*, which is a concept used *'to indicate ways in which surveillance was spilling over the rims of its previous containers—government departments, policing agencies, workplaces—to affect many aspects of daily life.'* (LYON, 2017: 826). So, at the same time increasing aspects of life are becoming commodified, they are also increasingly being watched for marketing and security purposes.

Back to the economic realm, competition in the markets tended to be bypassed by the creation of monopolies, enhancing the power of the monopolistic companies. It was also the opportunity for Internet companies to have an increasingly important role in users' data collection and processing, when this data began to be used by Internet ad servers and *'infomediary'* (online direct marketing) to increase their market power (CAMPBELL & CARLSON, 2002: 600). Thus, the Internet and proprietary platforms generate wealth only by surveilling the population to allow more precise and targeted advertising. Marketing became even more efficient with the digitalisation of surveillance (FOSTER & McCHESNEY, 2014: 23). Indeed, S. Zuboff (2019) expands the power created thanks to digitalisation to what she calls the *'instrumentarian power'* (ZUBOFF, 2019: 8), being the key feature of the new form of capitalism she entitled *'surveillance capitalism'*. She explains how human experience is being commodified and accumulated through data to create *'prediction products'* which will be sold on the new types of *'future behavioural markets'* (ibid.: 14).

While J. Rifkin did not write in 1995 how human value would be commodified in the future, he already noticed that the labour commodity value was decreasing, and that new ways would be found to extract value from human activities (RIFKIN, 1995: xvii). As S. Zuboff explains, this is the knowledge extracted from human behaviour that is transformed into models increasing certainty about these behaviours. In this respect, the platform can be seen as an *'information laboratory'* (COHEN, 2017: 22) dealing with predictions of human behaviours, as underlined by S. Zuboff. Regarding surveillance, she brings forward legal issues, market manipulation to enjoy an immunity regarding judicial and legislative restrictions, and transparency issues in general. S. Zuboff is clear that capitalist surveillance is painful and almost *'evil'*, as she uses adjectives such as *'parasitic'* and *'rogue'* to describe what she understands as an *'expropriation of critical human rights'* (ZUBOFF, 2019: 8). To this issue, she proposes a legal contribution with the *'right to future tense'* and the *'right to sanctuary'*, and collaborative enterprises to ensure users' rights.

Contribution

That being said, inspired by the book *'The Age of Surveillance Capitalism, The Fight for a Human Future at the New Frontier of Power'* by S. Zuboff (2019), my exploratory aim is to think about the development of surveillance capitalism to assess the role of the capitalist structure as well as the actors, to be able to rethink responsibility and to examine whether the proposed solutions tackle not only the symptoms of the issue, but rather put the emphasis on the roots of the process. There may be some gap between the delay of legal propositions and the exponential and fast progress of new technologies and their implications for human lives. Moreover, I wonder if the legal framework could legitimise already established surveillance capitalism. Since surveillance capitalism does not seem to weaken but rather to reinforce despite legal solutions, I understood a kind of puzzle,

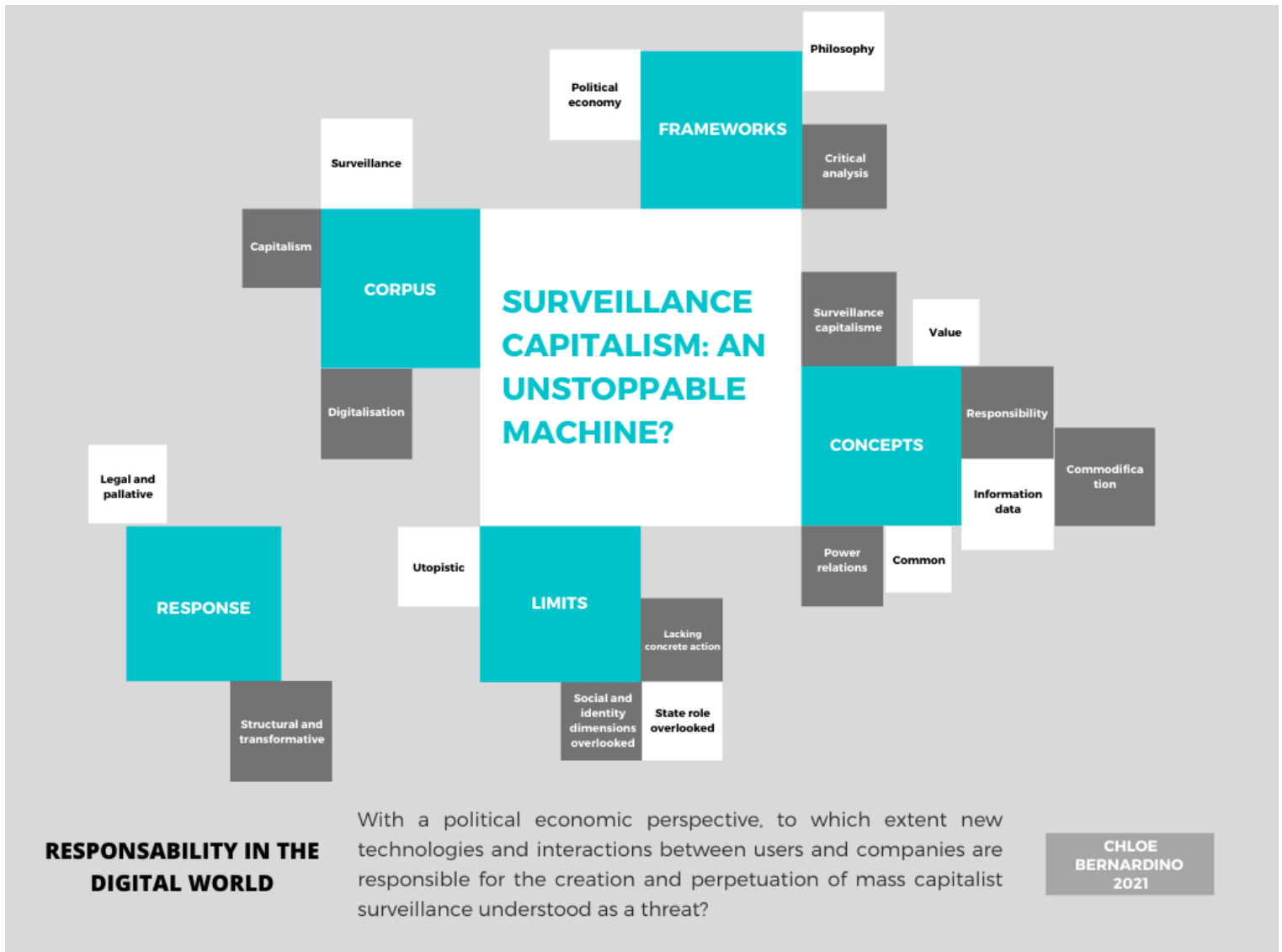
described by Schmitter (2008) as the hypothesis that something has been set wrong in the way the subject has been dealt with.

Therefore, my research question is: With a political economic perspective, to which extent new technologies and interactions between users and companies are responsible for the creation and perpetuation of mass capitalist surveillance understood as a threat?

My thesis is that capitalist logic, driving value creation, driven by accumulation and profit logic, combined with new technological means, is at the roots of the exacerbation of capitalism into capitalist surveillance. This matters because of the delegation of the responsibility to the liberal capitalist market to fulfill individuals' needs. Thus, to be able to overcome this issue, I would like to look for a solution without the idea of accumulation and private property and a reorientation of the responsibility to organise society, looking at the solution of the '*common*'. This concept was developed in a colloque under the direction of C. Laval, P. Sauvêtre and F. Taylan (2019), called 'The Alternative of the Common'.

To do that, I will adopt a critical lecture of a corpus of scientific texts from broad surveillance, capitalism and new technologies' implications literature. Through content analysis, I aim to observe and highlight the assumptions with which and frameworks within which surveillance capitalism appeared. I will also adopt some neo-marxist insights as I especially want to look at capitalist logic within the process of surveillance capitalism. Regarding the limits of my contribution, the economic perspective is restricting the vision of the scale of the issue, which encompasses relevant identity and social dimensions. Moreover, the role of the state keeps overlooked while, by wanting to get as much comprehensive as possible and due to the short available space, I touched upon many ideas without developing enough; which could produce a shallow work, nevertheless useful to have an overview.

In the subsequent sections, I first look to understand how the value is created in the 'Information Age', looking at the commodification of information. Secondly, I will try to understand the power implications and causes of this process regarding behavioural control. Finally, I aim at questioning the legal changes and universal income solutions and examine the roles of the different actors involved in the process to see if I can find where the responsibility lies. This will lead me to study another alternative called the '*common*', allowing me to rethink responsibility.



Here is a visual representation of how I handled my research paper, allowing to better understand the path I have taken to deal with my subject.

Part I: How is value created in the Information Age?

What is the Information Age and how is it organised?

First of all, information could be defined by *'any difference you perceive, in your environment or within yourself. It is any aspect that you notice in the pattern of reality.'* (CASE, 2007: 5). At the end of the 1990's, J. Rifkin (1995) is arguing that we have entered a *'new phase in world history'* (RIFKIN, 1995: xvi), which he calls the *'Information Age'* (RIFKIN, 1995: xi, CASTELLS, 1996). This Information Age, characterised by terms like *'post-industrial'* (BELL, 1973), has seen the increasing capacity of computers to stock, analyse, and share knowledge, opening the access to knowledge and information in general. *'Information highway'* (VAN DIJK, 2006: 2) is also used to qualify this new infrastructure organising our lives, as roads interlinking the map of society's organisation. Actually, the Internet is the most striking example of *'information highway'*. According to C. Fuchs (2008), the *'Internet is a technology of cognition, communication, and cooperation'*. This is a huge social platform characterised by exchanges between people, a *'societal context'* where *'social facts'* (FUCHS, 2010) are created; as the author explains, drawing on Durkheim³.

Furthermore, structural and conceptual changes are taking place in the understandings of space and time⁴ due to technological and communication revolutions (VAN DIJK, 2006: 4). So, according to J. Van Dijk (2006), the information society is characterised by the centrality of a higher intensity of information flows. Information is used within computer mediated work, to *'automate operations'* and *'generate information'* (ZUBOFF, 2015: 76). It contributes to make almost every aspect of life, such as *'events, objects, processes and people [...] visible, knowable and shareable in a new way'* (ibid.: 77). This leads to

an organization of society based on science, rationality and reflexivity; an economy with all values and sectors [...] increasingly characterized by information production; a labour market with a majority of functions largely or completely based on tasks of information processing requiring knowledge and higher education (hence, the alternative term knowledge society); a culture dominated by media and information products with their signs, symbols and meanings. (VAN DIJK, 2006: 19).

In addition, J. Rifkin (1995) states that, therefore, we entered a *'post-market era'*. In effect, markets are being replaced by networks as J. Van Dijk (2006) and M. Castells (2010) demonstrate. A network can be understood as a *'mode of organization in which hubs and nodes structure the flows of transactions and interactions'* (COHEN, 2017: 8). And the

³ To know more, see FUCHS, C. (2010) Social software and web 2.0: their sociological foundations and implications. In Handbook of research on web 2.0, 3.0, and X.0: Technologies, business and social applications, ed. San Murugesan, 764–789. Hershey, PA: IGI-Global

⁴ Indeed, thanks to technological progress and the invention of the World Wide Web in 1989, distance is not an obstacle to mobility and communication anymore, allowing flows to proliferate; and about time, delays are reduced and it is contrasting with *'biological time'* (CASTELLS, 1997: 12).

functioning of this network organisation of the economy is depending increasingly on information, which also allows to talk about '*informational economy*' (CASTELLS, 1997: 7), which is global. This concerns society at each level, meaning the individual, the communities and organisations, and the society as a whole; which reflects the massive scale of the phenomenon (VAN DIJK, 2006: 20).

Nonetheless, one paradox to highlight is that this organisation is exclusionary and does not integrate every part of the world even if it is happening in times of effective globalisation (CASTELLS, 1997: 7). Here, it is possible to connect with the notion of 'access', also characterising this Information Age. Increasingly, buyers and sellers are becoming providers and users, in a logic of access; where short-term usage of resources is controlled by the providers of networks, which are mainly oligopolistic telecommunication and media companies (RIFKIN, 2000) eg. Netflix and the subscription needed to watch movies and series. These companies are at the head of platforms, i.e. '*infrastructure-based strategies for introducing friction into networks*' (COHEN, 2017: 7). According to J. Cohen (2017), platforms are key tools to regulate access to the information economy, facilitating interactions and the control of shared resources (ibid.: 8). More precisely, platforms '*competitive strategies*' are made of both the control of the access of users looking for '*essential social, commercial and cultural connectivity*' and of the access of providers seeking the '*necessary data to create and sustain competitive advantage*' (ibid.: 16).

Finally, the '*information technology revolution*' (CASTELLS, 2010) was critical in the survival of the capitalist system. It allowed a growing number of human activities to enter into the commodity sphere, such as experience and information (RIFKIN, 2000). According to Rifkin (2000), informational capitalism is linked to hypercapitalism, where the entire human life is commodified through an access logic, ruled by inclusion / exclusion divide rather than owner / not owner.

How value is created in this era?

To begin with, the goal of capitalism is to accumulate profits, meaning to *own* increasing value. What is key is the idea of overaccumulation combined with looking '*to release a set of assets (including labour power) at very low (and in some instances zero) cost.*' (HARVEY, 2003: 149). Indeed, the use of digital technologies made it possible to create goods at zero marginal costs, signalling that the costs to reproduce a certain good are the lowest possible. Since profits result from a price higher than marginal costs, zero marginal costs ensure always profitable assets (EUROFOUND, 2018: 10).

Coming back to use value and exchange value, first explained by Marx (1867) to use it within the information era, resources are attributed a value according to the perception of the ability to satisfy needs of economic actors (BOWMAN & AMBROSINI, 2000: 2). While use value is the value perceived by the user according to her or his needs and represented by his or her '*willingness to pay*' (ibid.: 3); exchange value is attributed when the two economic actors agree on the amount to effectively exchange the asset. If this value is higher than the sum of the use value of resources, including goods, services and labour, used to create it, profits are created (ibid.: 5). For a long time, this creation happened through labour from workers, performed within a firm. As Marx (1867) explained, the amount of value necessary for its reproduction goes to the worker; whereas the '*surplus labour*', determined through

power relations between the workers and the firms, goes to the firms and constitutes profits. So, thinking of labour as a source of value, *'value capture is determined by the perceived power relationships between buyers and sellers'* (BOWMAN & AMBROSINI, 2000: 1). In the Information Age, experience and information began to be used as resources to produce more surplus-value. The value capture can now be said to be also determined by the perceived power relationships between producers and users.

For example, the process of value creation is now happening with consumers, also called users, entering the process of production, which was only reserved to firms (PRAHALAD & RAMASWAMY, 2004: 6). They began to *'interact with firms and thereby 'co-create value'* based on information (ibid.: 6), as well as communicating between themselves, and not only with firms. With the increasing access to information, this communication influences the use value they attribute to assets, while users are being more active in negotiating and bargaining to determine the exchange value (ibid.: 7). Rather than going against it, firms used it and went towards a more personalised offer, established thanks to interactions with consumers. Now, *'the customer [...] co-creates the service experience'* (ibid.: 8). However, the quality of this interaction very much depends on the access to qualitative information. And firms do not hesitate to withhold information, as well as collecting information based on a *'presumptive consent'* (COHEN, 2017: 19).

How has information been commodified?

On the other hand, another relationship of power between producers and users can be witnessed. These particular asymmetrical relations between firms and users, data owners and producers are key in *'value generation'* (THATCHER et al., 2016: 991). Drawing on the theory of accumulation through dispossession of Harvey (2004)⁵, we can highlight how information is transformed into a commodity, extractable within asymmetrical relations to produce surplus-value (THATCHER et al., 2016: 995). As Sadowski puts it, *'data is valuable and value-creating'* (SADOWSKI, 2019: 2).

In the constant quest of value and profits, we can witness the *'commoditization of more and more aspects of everyday life'* (THATCHER et al., 2016: 991) and the emergence of the *'informational economy'*. If we can talk about this type of economy and say that *'flows of personal data are artefacts of design for datafication'* (COHEN, 2017: 20), it is because the information collected about individuals is considered as *'raw material'* (ibid.: 18) or as an *'intangible product'* (VAN DIJK, 2006: 144), used to create data; while data is *'created, collected and circulated as capital'* (SADOWSKI, 2019: 3). Data is also considered as a commodity resulting from digital labour (ibid.: 4). In addition, what contributes to enhancing the value of such data, is that once collected, they are not or hardly accessible and kept secret. Furthermore, *'personal data do have commercial value exactly because they are generally secret'* (CANELLOPOULOU-BOTTIS & BOUCHAGIAR, 2018: 208). Not all data have the same value; for example, the age of a person's information has lower value than what he eats at what time and in which restaurant's information (ibid.: 209).

⁵Dispossession is *'a central feature of neoliberal capitalism'* and is understood by D. HARVEY (2003) as a *'general re-evaluation of the continuous role and persistence of the predatory practices of 'primitive' or 'original' accumulation'* (HARVEY, 2003: 144).

Finally, the process of commodification can be understood as a *'fundamental shift in production towards the explicit motivation for market exchange rather than use'* (THATCHER et al., 2016: 995). To commodify, according to J. Cohen (2017), *'"Big Data," was [used as] a technique for converting voluminous, heterogeneous flows of physical, transactional, and behavioral information about people (or about anything else) into a particular, highly data-intensive type of knowledge.'* (COHEN, 2017: 6). Moreover, data has become to be understood as capital since firms started to be *'data-driven'* (SADOWSKI, 2019: 4), meaning making data circulate and accumulate is more interesting from the value-creation point of view, rather than exchanging it directly. So, if information is now considered as valuable and exchangeable data, used in the creation of value process, to make profits, it can be confirmed that information has been commodified and data has been institutionalised as capital (ibid.: 4). This happens mainly on platforms, which are the main place where information is exchanged. Main platform firms are *'Alphabet (Google), Amazon, Apple, Facebook, and Microsoft'* (COHEN, 2017: 7).

How is data used to generate profits?

To be valued, information needs to be processed and analysed into data. It is usually done by infomediaries, standing for *'information intermediary [...] [which] aggregates their information with that of other consumers and to use the combined market power to negotiate with vendors on their behalf'* (CAMPBELL & CARLSON, 2002: 600). These producers of big data aim at *'[gaining] knowledge from them via analysis - in order to enhance decision-making in the pursuit of efficiencies and profit'* (THATCHER et al., 2016: 992). Since information and data are instrumentalised as a source of profits, they have been the object of *'obsessive need for further big data accumulation'* (ibid.: 992).

But for whom is this useful and with whom it is exchanged? Four main corporations' purposes have been identified: *'identifying individuals and behaviors, improving customer segment targeting precision, improving personalized advertisement relevance, and developing forecasting capabilities'* (THATCHER et al., 2016: 995). Another author, Sadowski, identifies five ways to create value from data; when data is used to *'profile and target people', 'to optimise systems', 'to manage and control things', 'to model probabilities' and 'to build digital systems and services'* (SADOWSKI, 2019: 6).

This is mainly about *'online marketing'* and making predictions. It is about a massive phenomenon of collection of personal data, processed to be used to target users through advertising (FUCHS et al. 2011, 3). Internet companies are the main actors that appropriated individuals' data, denying them access to their data as a commodity, which they process and sell to consumers, identified for example as advertisement companies. These data are aggregated so as to build patterns representing consumers' habits, allowing those detaining these data to better target consumption needs (THATCHER et al. 2016: 997). Consequently, *'databases'* are created to organise information, enabling marketers to target individuals within their list of customers according to criteria they set up before. This is called *'modeling'* (SOLOVE, 2004: 18). This allows advertisers to be more efficient and effective in advertising. Since valuable data capital mostly comes from individuals, *'accumulating data often goes hand-in-hand with increasingly invasive systems for probing, monitoring, and tracking people'* (SADOWSKI, 2019: 6) and these conditions of extraction of information is what will be studied in the next section.

Putting it in another way, Zuboff (2015) talks about '*information capitalism*' which goal is to '*predict and modify human behaviour as a means to produce revenue and market control*' (ZUBOFF, 2015: 75). For example,

third-party ad servers are able to target the "right people" with the "right messages" by compiling personal information into economic profiles of millions of individuals using, the World Wide Web, facilitating marketers in their systematic efforts to identify, categorize, and assess potential consumers (CAMPBELL & CARLSON, 2002: 586).

'Cookies', which are a '*piece of code*' are used to collect information on a user visiting a website to be able to identify him if he returns later to better target its needs (COHEN, 2017: 5). This is one way on the Internet of platforms to generate profits from personal data.

Regarding the legal regulation of this resource extraction, information is now seen as '*public domain*', which is an '*a culturally-situated way of understanding patterns of resource ownership and availability*' and a demarcation of conduct '*as to which no-one has a right to object*' (COHEN, 2017: 19). Framed like this, information becomes legitimately appropriable by firms. To use information, privatisation, signalling to be the legal owner and proprietary of an asset, is a precondition. According to Marx (1976), it is the '*annihilation of that private property which rests on the labour of the individual himself and is a fundamental feature of capitalism*' (THATCHER et al., 2016: 995).

Part II: To which extent does this process of value creation trigger negative externalities?

What is surveillance?

The emergence of the Internet and platforms is a worldwide phenomenon (FUCHS et al., 2011: xviii). It was one of the main components of social change but it also conditioned an unexpected practice to be realised in the most secret possible way: surveillance. Surveillance can be defined as '*the use of technical means to extract or create personal data. This may be taken from individuals or contexts*' (MARX, 2002: 12). D. Lyon (2008) describes surveillance as a '*purposeful*', '*routine*', '*systematic*' and '*focused*' attention '*for the sake of control, entitlement, management, influence or protection*' (LYON, 2008: 2). An important point he reminds us is that it is '*not good or bad but neither is it neutral*' (ibid.: 2), whereas C. Fuchs sees surveillance as a tool for domination naturally present within capitalism (FUCHS, 2015: 6). In addition, T. Mathiesen (2011) affirms in his preface, surveillance is not new; '*what is new now is surveillance that is hidden, unseen and impossible to trace*' and that '*most Internet surveillance is beyond any control at all*' (FUCHS et al., 2011: xix). More precisely, it is the way to observe and monitor individuals' behaviour that has become enlarged to a massive scale and more systematic, as well as it increased

through online means; even if face-to-face surveillance has not disappeared (LYON, 2008: 3). According to G.T. Marx, this type of surveillance is '*less coercive*' and '*more democratised*' (MARX, 2002: 28). Finally, how it is normalised and does not trigger as much resistance as it could have been expected is also new.

Several terms have been coined to characterise this practice, especially in reference to the panopticon model of J. Bentham (1791) and Foucault's book "Surveiller et Punir" (1975): '*electronic panopticon*' (GORDON, 1987), '*electronic superpanopticon*' (POSTER, 1990), '*digital enclosure*' (ANDREJEVIC, 2004), '*electronic surveillance*' (LYON, 1994). A derived notion that has been created is '*dataveillance*', understood as '*the systematic monitoring of people's actions or communications through the application of information technology*' (CLARKE, 1988: 500). Two different types of dataveillance can be envisioned: '*personal dataveillance*', which focuses on individuals' activities and '*mass dataveillance*', which targets more masses or groups in order to find '*individuals of interest*' (CLARKE, 1994). The main common components of both qualifications are computer databases, ubiquity and automation (ZUBOFF, 2019; CASILLI, 2019). Then, Lyon (1994) categorised surveillance within cyberspace into three categories: '*employment, security and policing, and marketing*' (LYON, 1994: 95). I will focus on surveillance for marketing purposes.

Finally, we will see that it is possible to frame an overview of this type of surveillance as bound to technology, as a repetitive targeted process and as a condition for capitalism to reach its goal, which is the accumulation of profits; since it enables better control of consumers and therefore, consumption and benefits from it. All of these dynamics are part of what S. Zuboff (2019) calls '*surveillance capitalism*'. It is a process based on the extraction of a mass of data from users to exercise control.

How to get behavioural knowledge: coercion?

Another component of surveillance is the requirement of a '*participatory component*' (CAMPBELL & CARLSON, 2002: 590). Thus, individuals' profiles can never be completed with only the provision of data made by online surveillance (ibid.: 590). How are companies going to push individuals to give information to complete their economic profile online? Here, it would be useful to remind the asymmetries of information between companies and users; when the companies do not reveal data about themselves or the exact quantity of data they are gathering about individuals. Everything is done in secrecy or framed so as to not appear as infringing any particular liberty to avoid triggering resistance. With the Internet, the control has become '*more pervasive, more invasive, more total, but also more routine, mundane and inescapable*' (ROBINS & WEBSTER, 1999: 180).

According to Gandy (1996), this is particularly this inequality of power within the relationship that constrains individuals to share information, convinced that it is part of a relatively fair transaction cost (GANDY, 1996). By avoiding being transparent regarding how they collect and process data, companies play on the ignorance of the users. Moreover, they use the threat of '*exclusion*' of the benefits gained through an exchange (WHITAKER, 1999: 139), which can be comparable with the '*symbolic coercion*' and the power of the '*habitus*' developed by Bourdieu. These power relationships take place on markets, within the framework of a '*consumerist panopticon*' (CAMPBELL & CARLSON, 2002: 592). Since allowing technological processes to capture information about activity and private life is

required to have access to platforms and working technological tools, refusing means seeing one's access restrained or denied. This happens since companies and marketers work on '*cultivating in the consumer the sense of "losing out"*' (ibid.: 592), while convincing consumers of more tailored experiences on the Internet. This satisfies human needs of certainty and recognition by its peers. By having more personalised offers on the Internet, the consumer feels important and considered. Furthermore, it has less concern about the fulfilment of its needs since its habits are analysed and anticipated.

Moreover, what is striking is how Internet companies framed innovation as enough necessary to be able to bypass privacy concerns (ZUBOFF, 2019), as if they were '*fundamentally and intractably opposed*' (COHEN, 2017: 20). In fact, privacy seems, as information, to have been commodified through its '*reconceptualisation [...] in the consumer's mind from a right or civil liberty to a commodity that can be exchanged for perceived benefits*' (CAMPBELL & CARLSON, 2002: 588). Therefore, privacy entered the realm of surveillance as a '*consumer-rights issue underpinned by the principles of data protection and by the law of trading standards*' (DAVIES, 1997: 143). Privacy seems to be a central concern as its 'loss' seems a consequence of such pervasive practices, but I rather understood it as inherently and fully part of the power relations between Internet companies and users, as well as one of the conditions of the value of data.

Even if surveillance can also be used by citizens to '*create public attention for injustices committed by the powerful against the weak*' (FUCHS et al., 2011: 13), it remains mainly a powerful tool controlled by the main Internet companies such as Google, Facebook and Microsoft. They tell us to work for the improvement of human lives', people's comfort and security. Actually, its *framing* on the public scene is very important. As Zuboff (2019) puts it, '*surveillance capitalists deftly employed the entire arsenal of the declaration to assert their authority and legitimacy in a new and undefended digital world*' (ZUBOFF, 2019: 187). While writing this part, I unconsciously made a mistake and wrote 'declaractions', which could easily give a better idea, intertwining the words 'declaration' and 'action', of the performative implications of the power of such use of language. For example, here are some declarations made by Google,

'We claim human experience as raw material free for the taking. On the basis of this claim, we can ignore considerations of individuals' rights, interests, awareness, or comprehension'

'On the basis of our claim, we assert the right to take an individual's experience for translation into behavioral data.' (ibid.: 174)

From this, I understood that Google was shaping the reality so as to fit its capitalist needs. It made assertions and 'faked it until it made it'. It took its reality perspective as the dominant one among the perspectives of actors evolving in the same environment, and did not question it; it rather acted as if it was the 'normal' and 'good' way of doing to improve human life. This conducted to the normalisation of its practices through framing. Moreover, they seem to have been internalised. To illustrate, as a 2000 child, I grew up with such technologies and practices and I had never really questioned them or seen them as infringing my privacy and liberty until I started to study, read and became trained to have a critical perspective.

Division of learning and future behavioural markets

By accumulating all this data and information, Internet companies can see their power, based on the quantity of knowledge they have, they decide to have and they entitled themselves to have, increase in what S. Zuboff (2019) calls the *'division of learning'* (ZUBOFF, 2019: 175). According to the author, it is a new power relationship created during the Information Age, since data is understood as a means to create value; just like the division of labour, when labour has been commodified way before.

As we have seen in the first part, data is used for *'targeting users with advertising'* (FUCHS et al., 2011: 3). Because the *'visibility on the Internet can be purchased and centralised'* (ibid.: 14), Internet companies also use their power to create a supply of visibility on the Internet, which allow them to regulate and control this new market, where consumers are mainly advertisers, eg. *'Internet Ad Servers'*⁶ (CAMPBELL & CARLSON, 2002: 594). So, it is interesting to think about surveillance and *'economic production, circulation and consumption'* as intertwined and interdependent processes (FUCHS et al., 2011: 8). Since the goal of major Internet companies is to accumulate profits, through the increase of the consumption, they will use surveillance to encourage consumers to consume, by offering them personalised and individualised commodities and advertising (HARVEY, 1989).

As S. Zuboff (2019) argues, this can be called *'instrumentarian power'*, which is an essential component of the whole practice of surveillance capitalism, as a *'foundational mechanism in the transformation of investment into profit'* (ZUBOFF, 2019: 55). In effect, the companies, which own monopolies on the Internet, are the main users of the Internet as a *'technology of control'*, as well as the main protagonists of the practices of surveillance, thanks to data collection and processing. What this kind of power consists in is using behavioural human experience data to construct models of predictions and sell certainty on *'behavioural surplus market'* (ZUBOFF, 2019). So, the knowledge is processed when *'machine intelligence operations convert raw material into the firm's highly profitable algorithmic products designed to predict the behavior of its users'* (ibid.: 67). These prediction products made from data are what S. Zuboff calls *'behavioural surplus'*, which is sold on *'behavioural future markets'*, in a capitalist logic to produce profits. Behavioural surplus is this knowledge about users' habits, extracted by surveillance, for marketing goals. Through a Marxist perspective, this is a form of alienation⁷ and exploitation because *'[users' activity] creates commodities without owning the means of production and without controlling the conditions and the results of production'* (FUCHS, 2018: 456).

To put it in another way, Internet companies get to know people's habits in order to guess and establish what is their most probable next move. Then, they sell these probable next moves' indications to companies, which look to anticipate the future needs of users to propose the most tailored good or service to them and be sure they will purchase it. The

⁶ Based on H. THOMASES's definition (2000), *'third party ad-servers are independent companies whose technology and equipment do the dirty work of managing, maintaining, serving, tracking, and even analyzing the results of online ad campaigns'* (THOMASES, 2000: 1).

⁷ According to D. HARVEY, alienation is universal because (1) it *'not just entails capital's exploitation of labour, but also the realms of realisation, distribution and consumption'*; (2) it *'entails processes beyond the economy'*, (3) *'entails the geographic and social expansion of capital accumulation so that capital relations "dominate pretty much everywhere"*. Moreover, it entails *'asymmetric power relations and conditions that hinder their control over certain objects, structures or products'*. (FUCHS, 2018: 456)

capitalist logic is thus highlighted through the accumulation of this data, thanks to increasing capacity of processing by *'machine intelligence'* and increasing supply of users' data (ZUBOFF, 2019: 78). This is a cycle where *'each human response to each commercial prompt yields more data to refine into better prediction products'* (ZUBOFF, 2015: 151).

Implications and economic logic highlight

To sum up, I consider the whole process of creation and selling of 'behavioural surplus' as the main dynamic I am focusing on. Within this perspective, the logic of accumulation and profits are key. They are the triggers of the whole extraction of data through economic surveillance, which has been legitimised and normalised. Once expropriated from users, this data is used as an economic surplus; in the same way labour has been used to make profits, as explained by Marx (1867): by producing surplus labour, that is not necessary to the reproduction of the 'workers-users', which thus can be sold to generate profits by capitalists. This behavioural surplus is turned into predictions, that are then sold to companies using it to foresee the future needs and advertise consumers according to their preferences, to better influence their future behaviours. This is when the 'instrumentarian power' enters the scene. Companies do not only want to respond to consumers' needs, but almost want to push future needs to fit the production of goods and services, to accumulate more profits.

Overall, predictions from surveillance aim at reducing uncertainty, especially regarding market behaviours, as this type of surveillance works as a *'predictive model'* (CAMPBELL & CARLSON, 2002: 589). Besides that, Lyon (2008) adds that *'surveillance is bound up with [...] governance'* understood as the control of *'access, opportunities, chances and [the help] to channel choices, often using personal data to determine who gets what.'* (LYON, 2008: 3). A parallel can be made with the 'biopolitics' concept of Foucault (2008), which defines the creation of knowledge about the new object of 'population' to regulate it, because the same dynamic can be found within the creation of prediction products from users' information, to influence their behaviour. If I understood correctly, surveillance is also seen as a conditional means of 'good' governance in our modern society, signifying order and regulation within society; which helps to legitimise it. A consequence of surveillance legitimacy is the power given to those who access personal data, before and after being processed, to discriminate and use it as *'means of social classification, of social ordering'* (LYON, 2002: 592). This triggered dilemmas about ethics and human rights, but also accountability and transparency (LYON, 2008: 5).

Part III: What responses have been made and where does responsibility lie?

Legal rights, frameworks and framing

Rights were initially framed to restore the ownership of intellectual property, which is knowledge, to those producing this knowledge (VAN DIJK, 2006: 145). One of the first reactions has been to produce intellectual property right and copyright to protect the form of the creative effort made by users on the Internet (ibid.: 145); with for example, the *Digital Millennium Copyright Act* in 1998 and the *Directive on Certain Aspects of Copyright and Related Rights in the Information Society* in 2001.

Then, going outside of economic rules, the right to privacy has been framed as a human right; such as in the *European treaties of Rome and Strasbourg* and in the *United Nations' Treaty on Civil Rights and Political Rights*. Besides that, some codes of conduct have been produced as a kind of '*emergency legislation*' (ibid.: 149), which highlights the time gap between the impact of negative externalities and the legal response. This intends to reduce the access to data to protect the use and misuse of personal data, because it is considered as private. It is also a way to counter the '*transparency paradox*', in which the '*citizen becomes ever more transparent to the government, while it becomes increasingly complex for the citizen to understand which governmental organisations hold which information about him or her*' (BROEDERS, 2016: 299). Broeders also points out the '*privacy paradox*' as when '*most people say they are concerned about privacy, but behave in their everyday lives as if they do not care about it at all*' (ibid.: 299). In fact, according to the author, secrets are essential to maintain social relationships and state's legitimacy (ibid.: 296).

In Spain, to resist extraction and retainment of information by Google, which could be used for dangerous aims for ninety Spanish citizens, they took the path of democratic processes too and asserted the '*right to be forgotten*' (ZUBOFF, 2019: 60). This right entails the removal of access to these people's information at their requests. They were supported by the Court of Justice, which made this right a '*fundamental principle of EU law in May of 2014*' (ibid.: 62). Similarly, California established the "Online Eraser" law in 2015 '*to permit a minor who is a registered user of the operator's service to remove, or to request and obtain removal of, content or information posted by the minor.*' (ibid.: 63).

However, despite such legal measures, the progress of surveillance capitalism did not slow down. Moreover, there are still issues about '*contract law, certification and authentication law, liability legislation, laws of open competition and storage obligations*' but also of jurisdiction (ibid.: 149). This may have diverted the attention from the whole process of commodifying human behaviours to a kind of '*law shopping*', in which companies argue for norms serving their interests (DARDOT & LAVAL, 2014: 527:545). These rights emphasise the responsibility of companies.

Going further, S. Zuboff (2019) argued for the establishment of '*the right to the future tense*', which is about letting people freely determine what they want their future to look like (ibid.: 25); and the '*right to sanctuary*', which is about creating a place allowing to escape the pervasiveness of surveillance capitalism (ibid.: 26). '*Each of these rights invokes claims to individual agency and personal autonomy as essential prerequisites to freedom of will and to the very concept of democratic order.*' (ibid.: 57) So, the creation of such rights respond to the infringement on individuals' freedom of choice and equal access to information, by the surveillance capitalist enterprise, for their own interests. These would balance the asymmetries of power between Internet companies, being held accountable, and individuals, giving them more power.

However, since the beginning, the corporations and companies like Google framed and declared: their right to evolve in a '*lawless*' space (ibid.: 101), their ability to respond to people's needs of security and certainty through their collection and processing of data and the negative impact of law on innovation and human progress (ibid.: 104). Finally, these rights respond to surveillance capitalism's effects, but seem temporary and allow the process to perpetuate; since it would, only in specific cases when individuals ask, make it cancel the data. Nevertheless, the best would be to not collect the data for these purposes at all.

Universal income, digital labour and compensation

If the data produced by the users of social media and platforms, owned by the Internet companies, is considered to be valuable, as explained in the first part; then, their activity can be framed as '*digital labour*'. This is a notion well developed by A. Casilli (2019). For him, digital labour is '*travail tâcheronnisé et datafié qui sert à entraîner les systèmes automatiques*' (CASILLI, 2019: 19), meaning an online activity, which is divided into tasks and translated into data, and which is used to improve algorithms. As it has previously been mentioned through '*prosumers*' concept, the idea of the participation of the consumer to the process of production is similar. A proportion of this online network labour is monetised and used for machine learning; but the major part of this labour is provided freely and without any income. In fact, most of the time, it is because this activity is not framed as labour, but as '*playbor*' or '*weisure*', since the part of arduousness of the work is put aside, or just as punctual tasks. It does not need to be a task realisation to produce value, rather it can only be to give some information (ibid.: 103). Consequently, by not being framed as traditional labour, the implications of labour protection and legal framework do not happen.

To counterbalance the precarity implicated by the non-recognition of this activity as labour, some have argued for the establishment of a '*revenu social numérique*' (ibid.: 399). It is a digital social income, also known as guaranteed or universal income. Firstly, it can be understood as a measure not aimed at the correction of the asymmetry between the contribution of users and the companies, but rather a complementary palliative response (ibid.: 400). Secondly, it can be understood as a form of an annuitant income representing the distribution of the value directly created by platforms and machines. Thirdly, it can be understood as a '*primary source of economic resources*' (ibid.: 400), which would allow a better recognition of users' contribution. However, it does not tackle the roots of the exploitation the users suffer from, but rather provides a temporary measure; almost justifying the existence of asymmetry and economic exploitation, in addition to ignoring the emancipatory dimension of work.

To sum up, this economic measure can be seen as legitimating and justifying the capitalist invasion of online activities. Even if there is a democratic understanding of the resources produced on platforms as constituting a ‘*common*’ resource; indicating that the notion of private property is rethought but does not disappear, this ‘*common*’ is still the property of the collectivity of users, called the ‘*social property*’ (ibid.: 402). Here, remuneration is seen as a recognition of the realisation of the dignity of work, but I would rather say that it is a recognition of the productivity of digital labour; and not of the worker’s dignity.

Civil society, self-regulation and technological solutions

On the other hand, response can be about ‘*self-regulation or self-organisation on the market and technological solutions*’ (VAN DIJK, 2006: 145), which calls on the users, citizens, individuals to defend themselves. Within this dynamic, self-regulation can be seen through the ‘*free adoption of codes of conduct or codes of good practice by service providers themselves*’ (ibid.: 148). It has also been argued about users’ self-regulation in the information they give and the conditions they accept. This contributes to putting a part of the responsibility on the users, but it does not work either, since they are victims of information asymmetries, which make them more vulnerable to persuasion and manipulation (ZUBOFF, 2019: 291).

For instance, artists, activists and inventors have put in place different mechanisms to counter the surveillance programmes such as

signal-blocking phone cases, false fingerprint prosthetics that prevent your fingertips from being “used as a key to your life,” LED privacy visors to impede facial-recognition cameras, a quilted coat that blocks radio waves and tracking devices, a scent diffuser that releases a metallic fragrance when an unprotected website or network is detected on any of your devices, a “serendipitor app” to disrupt any surveillance “that relies on subjects maintaining predictable routines,” (ibid.: 459).

Similarly, movements are launched, such as ‘*None of Your Business*’ (NOYB) led by the activist Max Schrems, which is a ‘*vehicle for “professional privacy enforcement”*’ (ZUBOFF, 2019: 455) to make corporations’ practices and procedures respect the law. In addition, some citizens have taken the responsibility to balance the asymmetries of information by leaking information about governments or companies, such as Edward Snowden’s revelations in 2013. He denounced the partnerships between Internet companies and intelligence activities of the US government (ibid.: 477). In the same way, the scandal about Cambridge Analytica and Facebook cooperation happened. It showed that the system put in place in the commercial realm could also be directed to the political sphere, and this provoked a huge negative blow on Facebook’s secret practices and legitimacy.

Nevertheless, all these legal, social, economical practices are temporary palliative responses, which do not tackle the roots of surveillance capitalism. Responsibility to decide their future and go beyond, and not just respond to, surveillance capitalism should be reappropriated by individuals.

Conclusion: The Alternative of the common

Finally, capitalism's excesses, and especially capitalist surveillance, are created by a combination of new technologies and capitalist logic of accumulation, based on private property. Then, it is perpetuated by the delegation of the resolution of these excesses to markets and/or to the state. Despite interesting legal and civil society's initiatives, to respond to surveillance's negative externalities, surveillance capitalism continues to have negative impacts on our lives⁸. It may have slowed it down but there is a lack of concrete effective measures to curb the growth of its 'instrumentarian power'. Nonetheless, the idea of a common human destiny is not consensual; this is what can be called '*the tragedy of the non-common*' (DARDOT & LAVAL, 2014), inspired by the initial concept of '*tragedy of the commons*' coined by G. Hardin (1968). Indeed, according to S. J. BUCK, the common goods are not appropriated and threatened until technologies (and capitalist logic) allow their exploitation to make benefits. Then, it could be interesting to pay attention to the propositions to go beyond capitalism, and not just correct it.

To sum up the first part, according to the dotCommunist Manifesto (2003), the Information Age, combined to capitalism, led to a '*bourgeois system of ownership [which] demands that knowledge and culture be rationed by the ability to pay*' (MOGLEN, 2003: 3). The production of knowledge and culture, which would be labelled as intellectual capital, is profit-driven. According to Moglen, even if the context changes, capitalist logic stays the same and power relations perpetuate. Within this process, personal worth is turned into exchange value (ibid.: 4). As previously explained, rights and income reform are not very effective to take this capitalist economic logic out of individuals' lives. Then, coming back to the second part, being driven by a logic of accumulation and profits until creating behavioural control and predictions is the issue; signalling the dispossession from individuals of the information they undertake to control them (THATCHER et al., 2016: 990), destroying our humanity and our social interactions: what makes us human. What is interesting is the dynamic in which what people have been dispossessed of is appropriated by Internet companies (ibid.: 996). So, there is not just private property and accumulation of resources, but these processes are preceded by the expropriation of the resources by some actors, who will then privatise them. Finally, to go beyond capitalist excesses, here is what I have looked at.

The system, in which the society evolves, was initially built to respond to society's needs and individuals' needs; it is usually thought as a market-led or state-led process (DARDOT & LAVAL, 2010: 111). It has quickly been superseded by the will to get more than enough to fulfill individuals' needs, to secure the future, because of power lust and fear of lacking resources to address one's needs. Therefore, there has been, since the beginning in this system, a competition over resources. That is why I have thought about questioning the possibility of fulfilling each one's needs, based on the logic of abundance rather than scarcity. I mean, instead of taking the assumption a resource is rare and there will not be

⁸ C. FUCHS (2018) argues that 'capitalism is a totality which means that everything that exists in contemporary society is related to capital' and that through crises, the '*creation of new spheres of accumulation and instrumentalisation*' is using the '*primitive accumulation*' while resistance and alternatives try to '*create spaces that stand outside the logic and influence of capital*' (FUCHS, 2018: 462).

enough for everyone, the idea would be to change our perceptions and take the responsibility to build a system based on the assumption that nature and human cooperation are the sources of abundance, and will ensure the fulfilment of our needs, based on trust rather than uncertainty. This change of perspective would be the symbol of the re-empowerment of our lives, not subjected to state or market anymore, which tend to become intermingled eg. '*corporate state*' (ibid.: 112); and think of the construction of an alternative. E. Ostrom (1977) has already provided some foundational keys regarding the establishment of the common through the management of natural resources in a collective manner. Then, the idea would be to rethink the management of intellectual resources too.

Consequently, it requires us to rethink organisation and responsibility, but not in the same way as communism. This way of organising society is about a '*communauté d'égaux consommant les biens en commun*' (DARDOT & LAVAL, 2014: 59-93), signifying a community of equal units consuming common goods, whose goal is moral improvement. What can be considered important is that there is no private property in this way of thinking. However, the first issue is that there is still property, which is collective. Nevertheless, there are some interesting points. In the communist utopia, community is seen as morally valuable whereas property is rather seen as immoral, as shared by Durkheim's (1928) lecture of the Republic of Platon. There are also religious origins in the Old Testament which are interesting to the extent that they put the common as a means to fulfill the needs of each one of the individuals by '*giving [money] according to its needs*' (Acts of the Apostles, 4). Saint Ambrose explained that nature does not recognise rich people since nature has been given in common to all human beings⁹. Nonetheless, the revolutionary dimension later came to respond to class conflict by organising labour, depropriation of the nation and equal repartition of goods, where the main goal is equality (DARDOT & LAVAL, 2014: 59-93). The emphasis is put on effective production and labour. Here comes the second issue, which is the delegation to a supreme authority (state or God) to organise this division of labour, leading to some excesses eg. Mao and Stalin's totalitarianism as a result of appropriation of the common by the state.

Another way to guarantee an access to decent living conditions, fulfilling the biological needs as well as the psychological needs of security, certainty, variety for example, was to delegate this task to markets; but as inequalities are rising just like behavioural control, it proved to have failed. To this failure, the altermondialist movement entered the scene, by trying to consider fundamental rights of access to goods and services, labelled as vital to human dignity, as opposed to market logic because they are unconditional and independent of property, as '*biens communs de l'humanité*' indicating '*common goods of humanity*' organising society (DARDOT & LAVAL, 2014: 527-545). However, the authors put the light on altermondialism's inability to go beyond the state system to ensure fundamental rights.

Therefore, the 'common' alternative is about a reorganisation of society and principles, without property and delegation of authority, rather than a legal framework added to the actual society's organisation. To think about fulfilling each individuals' necessities out of the market and the state, I would like to put the emphasis on democratic co-construction of the response and go beyond the creation of value, the state and its bureaucracy to organise society, through the concept of the '*common*'. In the framework of the Foucauldian notion of governmentality, understood as '*the conduct of conduct*' including '*governing the self*' to

⁹ Cited by J. GRANDJONC, Communisme/Kommunismus, Communism, note 123, p52

'governing others' as a spectrum (LEMKE, 2002: 50), here are insights about the co-construction of a self-government, understood as a technology in intertwined political and economic spheres, that will not put the power of decision-making into the hands of an external entity to the individuals (ibid.: 53).

Framing is important but, to ensure concrete results, to set up actions is the second necessary step to create an alternative to go beyond capitalism, which is aimed at destroying itself explained by Marx with his notion of '*accumulation originelle*'; i.e. the capitalist production will be destroyed by capitalist development and expropriators will be expropriated (MARX, 1867). The idea of the 'common' appeared in the 1990's, in opposition to the movement of enclosures in Europe (DARDOT & LAVAL, 2014: 11-20), until being at the centre of the 'common studies' and reflecting '*un régime de pratiques, de luttes, d'institutions et de recherches ouvrant sur un avenir non-capitaliste*' (ibid.: 11-20), i.e. a means to propose a future organised differently than by capitalism. According to the authors, property and common are antagonistic and threatening each other. The '*common*' is to be understood as an economic and political principle dealing with the organisation of the society. The common is '*the concrete product of social movements and various schools of thought dedicated to opposing the dominant tendency of our era, namely the extension of private appropriation into every sphere of our societies, our cultures, our very lives.*' (ibid.: 5).

To understand the '*common*', the '*right to usage*' needs to be introduced (ibid.: 467-481). It means '*toute faculté de tirer parti de l'utilité d'une chose, qu'elle résulte de la loi ou d'un contrat. [...] Mais le droit d'usage [...] exclut la faculté de disposer de la chose sur laquelle il porte*' (ibid.: 467-481) i.e. it is possible to enjoy the usefulness of something without possessing it. It reminds the '*age of access*' introduced in the first part (RIFKIN, 2000), in which access to the usage of goods and services is commodified. However, for the '*common*', usage needs to be determined collectively through deliberation, in order to be legitimately destined to be commonly used by the co-constructors of the conditions of use; this is all about co-constructing (ibid.: 467-481). It needs to be constructed because '*the common...cannot be thought of as an original state to be restored, nor something that spontaneously emerges out of the process of production, nor something that is imposed from the outside, from above*' (ibid.: 57). Here, the 'Commune de Paris' is one of the models.

To conclude, co-constitution and co-gestion are the key to construct such a practice. The authors remind that the 'common' is more than goods, they are a '*practical activity*' and a '*political principle*' (ibid.: 28). Since we live in a constantly changing world, the 'common' is an alternative proving to be flexible and in constant adjustment through democratic deliberation and the establishment of rules as '*instituent praxis*', focused on instituting norms from the current situation (ibid.: 309). Moreover, far from universalist organisation, not only one common system of organisation needs to be established but rather, a variety of commons inspiring and helping each other if needed. As Dardot & Laval (2010) remind, reciprocity, democracy and participation are non-negotiable conditions for the common, as an organising principle, to exist (DARDOT & LAVAL, 2010: 120). Indeed, in such a globalised world, to ask to construct smaller groups pushing for democratic and deliberative co-organisation of the system of production may appear utopist. Nonetheless, since I am convinced that we can construct perceptions of our environment, we are also able to reframe them to trigger new actions and leave universal fixed models of organisation for flexible and adapted ones.

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