

Social Networks and Well-Being in Democracy in the Age of Digital Capitalism

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ABSTRACT : The objective of this work is, on the one hand, to study the new competitive forms that correspond to the development of the different markets linked to electronic platforms and social networks on the Internet. On the other hand, to develop a proposal for social welfare for the positive and negative impacts produced by the development of these markets. In the first part, the main social and economic changes inherent to political and social evolution are addressed. The main logical trends of the market are presented about production and modalities of information appropriation, in particular the new forms of information asymmetries in the electronic market.

KEYWORDS: *Imperfections information; Network Economy; Social Welfare; Democracy, Digital Capitalism.*

I. THEME AND SEARCH PROBLEM

Studying the relationships between technologies, social networks, stored data, surveillance, and fundamental rights (especially about security and privacy), is something of great relevance to the Social Sciences. The exploitation of digital capitalism is a reality, based on the knowledge of the behavior of internet users and digital platforms, their decisions and their privacy (it is not the individual who chooses whether to share such data or not, which relate to facets of their way of being, which go beyond the conscious, penetrating even in the area of desires and attitudes personally unnoticed). Legally, such a study is relevant because it is focused on forms of social communication and economic generation that challenge the constitutionally established norms in democracy: respect for private life and contractual adhering.

Every social network, application and/or website that captures data exposes its intentions in electronic contracts of association so long and complex that it becomes impossible, in normal daily life, to have sufficient time and knowledge to understand such obligations. This threat to rights is aggravated, the fact that technological tools are less and less dispensable for the realization of life in society, economic / labor activities, entertainment, etc.

Questions for debate

1. What will be the impact of social networks on the digital society?
2. What will be the purpose of the data collected by digital platforms?
3. What will be the purpose of the data collected by digital surveillance?

II. OBJECTIVES AND APPROACH METHODOLOGY

To achieve its objectives, the article was divided into three parts. The first is the description of technological forms based on personal and behavioral data generated in individuals' online communications.

The second studies the relationship between the digital economy and the business world, users' rights, and their privacy. Finally, the third part seeks to understand how states and private organizations use electronic data surveillance.

As for the nature of the work, it is qualitative, since it does not claim to quantify anything, nor does it favor statistical study. The theoretical framework of this work was constructed through the research technique of the literature review. Its nature is exploratory and its method of hypothetical-deductive procedure.

III. FUNDAMENTAL CONCEPTS

a. *Data, Information and Knowledge*

Information is not the same as data, although the two words are often confused, so it is understood that the subtle distinction between these concepts is essential. The data do not convey sense or meaning of the facts, images, or sounds, since they lack relational elements essential to the establishment of a complete meaning, lacking an internal relational structure for a cognitive purpose.

This structure is one of the attributes of the information. Data is transformed into information when its creator adds meaning to it Davenport and Prusak, (1998). William G. Zikmund (2000, p.19) defines knowledge as “the mixture of information, experience and understanding that provide a structure that can be applied in the evaluation of new information or new situations”. Information "feeds" knowledge. Knowledge can thus be defined as a person's ability to relate complex information structures to a new context.

New contexts imply change, action, and dynamism. Knowledge cannot be shared, although the technique and components of information can be shared. When a person internalizes information to the point that he can use it, we call it knowledge Zikmund, (2000). This is a fluid mix of experiences, values, contextual information, and expert judgment, structured that provide a framework for evaluating and incorporating new experiences and information. Organizations are found not only in documents and reports, but also in organization routines, processes, practices, and standards.

Knowledge has its origin and is applied in the minds of connoisseurs (Davenport and Prusak, 1998), (William Zikmund, 2000). Knowledge is information as valid and accepted, integrating data, acts, information and sometimes hypotheses. Knowledge needs someone to filter, combine and interpret information. Information can be considered as a “substance” that can be acquired, stored, and owned by a person or group and transmitted from person to person or from group to group.

Information has a certain stability and it may be better viewed as existing at the level of society (Davenport and Prusak, 1998). Although we can store it using various physical supports, the information itself is not physical, but rather abstract and neither purely mental. Knowledge is stored in people's memory, but information is out there in the world. Whatever it is, there is somewhere between the physical world around people and the mental of human thought.

Knowledge = Internalized information + ability to use it in new situations.

Knowledge is found fundamentally and intrinsically within people. These are more complex and unpredictable at the individual level than an entire society, so it is not surprising that knowledge is much more difficult to obtain than information. Knowledge exists mainly within people; it is an integral part of human complexity and unpredictability.

Knowledge has a fundamental duality: it is something storable (at least sometimes we intend to do it) and something that flows (something that communicates from person to person). It is possibly the duality of knowledge (something that flows and storage process) that makes its treatment and management difficult. According to (Dahlberg, 2006), knowledge is organized into units of knowledge (concepts) according to its characteristics (objects / subjects / subjects). The organization of knowledge is related to a process of conceptual analysis of a domain of knowledge and from there, it is structured / architected generating a representation of knowledge about that domain that will be used for the organization of information about that domain of knowledge.

Matrix - 1 Data, Knowledge, and Information.

Given	Information	Knowledge
Simple observations on the state of the world: <ul style="list-style-type: none"> easily structured. easily obtained by machines. often quantified. easily transferable 	Data with relevance and purpose: <ul style="list-style-type: none"> requires unit of analysis. requires consensus on meaning. necessarily requires human mediation. 	Valuable information from the human mind. Includes reflection, synthesis, context. <ul style="list-style-type: none"> difficult to structure. difficult to capture on machines. often tacit. difficult to transfer.

Source: Davenport, 1998.

Data, information and knowledge should be seen and analyzed from the continuing perspective of values and fundamentally marked by the growing human contribution – processing, management, action, result, learning and feedback, that is, human empowerment for actions that generate the desired results at the organizational level

Matrix - 2 - Data, Information, Knowledge, Actions / Results

	Data Processing	Information Management	Knowledge Management	Stocks/Results
Activities	<ul style="list-style-type: none"> Data capture Data definition Data Storage Data Modeling. 	<ul style="list-style-type: none"> Information Needs Acquisition of information Information Organization Distribution of 	<ul style="list-style-type: none"> Knowledge Creation Sharing of Knowledge Use of Knowledge 	<ul style="list-style-type: none"> Strategies, alliances and initiatives Products and Services Processes Systems

		Information		<ul style="list-style-type: none"> Structures Values
Values	<ul style="list-style-type: none"> Precision Efficiency 	<ul style="list-style-type: none"> Access Relevance 	<ul style="list-style-type: none"> Enables action Value generation 	<ul style="list-style-type: none"> Innovation Learning
	"Once we have the data, we can analyze it"	"Bringing the right information to the right person"	"If only we knew what we know"	The ability to learn is the only sustainable advantage"

Source: Adapted from Choo, (2002, p.258).

b. Information Imperfections

Humans are not only rational, but they also assume some opportunistic behaviors. Williamson (1975) describes opportunism as "the search for one's own interest, with cunning" involving "disbelief of threats and opportunities", so as, to realize individual, advantages. These advantages are also suitable for "selecting and distorting discovered information or discrediting the opportunities leading to the future" (Williamson 1975, p.26). The claim is that, even if not all humans, behave opportunistically, it is difficult to predict in advance, whether they will behave or not, as such.

These types of behaviors reflect the relationship between the economic interest of the search engine operator, but also the public interesting accessing information in a search on a person's name. The combination of opportunist and rational behavior, is the, main cause, for the three types of imperfections of information:

- **Asymmetric information** – an asymmetric distribution of information from the parties involved in a relationship, causes an opportunity. The critical impact of the information, on the optimal allocation of risk, is not merely its presence or absence, but its inadequacy between the actors, together two conditions under which, the asymmetry of the information, provides an opportunity, for example, the relationship, between the economic interest of the search engine operator, but also the public interest, in accessing the information, in a research on the name of a person:
 - High costs to obtain equal information.
 - Propensity of the part's opportunistic behavior. In other words, asymmetric information occurs when one party has information that is unknown to the other and difficult to obtain by the other party and provides an opportunity to exploit this advantage of information through possible alternatives.

Asymmetric information can result from a favorable situation for suppliers or customers depending on who has that information. The opportunity is caused by the hidden information, for the current relationship. One party in a relationship is better informed about one relevant variable than the other. It is the invisibility of this private information that constitutes the essence of information imperfections and introduces the risk to the other party.

Considering the possibility of opportunistic behavior, the party that possesses the hidden information has no incentive to re-image the information, if it is harmful to it. Therefore, for example, if the economic interest of the search engine operator, but also the public interest, in accessing information in a search on a person's name. is particularly appropriate for a determined organization, will end up with the main benefits of the actors who benefit from this hidden information. The imperfections of information are known as enemies of the selection.

- **Ambiguous Information** – The ambiguity of information in a relationship can cause an opportunity. Although in the case of complete information, different interpretations, about the same information, may occur. As a result of opportunism, these representations can be opportunistic in the sense that they can lead to an individual advantage for either party (e.g. the economic interest of the search engine operator, but also the public interest in accessing information in a search on a person's name..

The opportunity for one of them is discovered, when such opportunistic interpretation, is not recognized by the other and results in:

- Will of one of them to pay a high price, for information.
- One of them will offer a "product" at a low price.

As a result of this opportunistic behavior, the part with opportunistic interpretation has no incentive to share that information if it becomes a disadvantage to it.

- **Incomplete Information** – The opportunity of incomplete information is hermetically related, with the assumption of rationality. The limits of rationality are certainly interested in the extent that the limits of rationality are reached – i.e. under conditions of uncertainty and/or complexity. In the absence of any of these conditions of ownership of contingent actions may be completely specific to this principle.

In a universe characterized by a high degree of complexity and uncertainty, the possibility of certain events quickly become numerous. Under these circumstances, it is impossible for humans to acquire and analyze the relevant complete information. As explained before, this impossibility leads to "satisfactory" behavior. The opportunity for incomplete information occurs, when someone is incomplete informed, about the range of

possibilities. Therefore, one of the actors who allows an incomplete comparison of the parties and their reciprocal differences can move towards a situation of abyss.

c. *Information Economy*

For the economy, the need is "the feeling of a certain lack united with the desire to be eliminated". The need is thus "the desire to have a means capable of preventing or stopping an unpleasant sensation or provoking, preserving or increasing a pleasant sensation" (Sabaté, F. Tarragó, 1989).

The means used by people to meet their needs are designated by economists as goods. A *good* is therefore all that is recognized, as apt to satisfy a need, regardless of any other judgment (e.g. moral judgment). Goods can be classified in several ways. The first one that interests us is the one that distinguishes the so-called free goods (e.g. the air we breathe, the water) from economic goods. An economic good is one that is characterized by its scarcity, that is, it is one that exists in quantities lower than those required, given the need felt" (Sabaté, F. Tarragó, 1989).

"The usefulness of a *good* refers to the quality and capacity of that good to meet the needs that is proper to that good. The usefulness of a good is the aptitude of this good to meet the needs and the needs are subjective sensations, it follows that a same *good* may have different utility for different people, depending on the intensity with which they can experience or feel the needs that can satisfy with this *good*", (Sabaté, F. Tarragó, 1989).

Associated with the concept of utility is the concept of "*economic value*" from which it can be said that it is the quality of everything that is granted importance, because it is considered to deserve esteem. Therefore, the value of a particular good also depends on each person, since each one can feel a distinct appreciation for the same good, (Sabaté, F. Tarragó, 1989).

Organizations seek to achieve economic return by selling their products or services on the market. In a competitive environment, an organization can achieve a better performance than its competitors, because it has better resources or because the organization makes better use of its distinctive competencies, (Penrose 1959, p.54). A distinctive competence is defined as a differentiated qualification, complementary asset and organization routines that together allow the company to coordinate a specific set of activities that provide the basis of competitive advantages, (Dosi and Teece, in: Williamson 1999, p.1094).

Competitive advantage is referred to as economic profitability (Porter 1980). Profitability is then defined, as the excess return of a resource that owns an opportunity cost, (Mahoney and Pandian 1992). In other words, profitability can be measured, like a normal financial return. To differentiate the possible sources of profitability, some types are distinguished. For example, profitability can be realized by, (Mahoney and Pandian 1992):

- Superior management capacity to coordinate resources (Penrose 1959).
- Possession of a valuable resource that is rare.
- Government protection when barriers to entry of new competitors are high.
- Taking risks and business acumen in uncertain and complex surroundings.
- Make better use of the organization's resources, any of the physical assets and human capital.

In short, the base resource is an attempt to explain why organizations differ in terms of resources and capabilities and how these differences can lead to sustained profitability positions, producing superior financial return. The base resources therefore serve the purpose of explicitly focusing on the role of the resources and capabilities of organizations, such as the origin of strategy and organizational performance. This exploration of the relationship between resources, competition and profit includes, among other issues, the role of imperfect information in creating profitability differences between competitors, (Grant 1991, p.3, Barney 1986, Itami 1987).

Information imperfections are some of the competitive imperfections that shock the economic ideal of the perfect market, (Yao, 1988). The perfect market is characterized by numerous customers and suppliers of homogeneous products and or services and whose price mechanism determines the most efficient organization of the market. Looking at the information, all customers and suppliers are completely and perfectly informed about all relevant aspects of business transactions.

While the market ideal serves as the most important appropriation of neoclassical economic theory, contemporary economic theories tend to consent to this as opposed to the appropriation of unrealistic theories. Therefore, we assume that the perfect market and that perfectly informed customers and suppliers are a myth. For this reason, it is proposed that markets are characterized by imperfect competition and that information imperfections are an important trend. (Yao, 1988).

d. *Network Economics and Social Welfare*

The economy of social networks is the emerging economic order of the digital society. The name derives from a key attribute –products and services are created and value is added through social networks that operate on large scales or globally. This contrasts sharply with the economy of the industrial era, in which existed the right

of ownership over physical property right Business models for capturing value added rights to products and services created on social media are being widely explored.

The economy of social networks can be seen from a number of perspectives: transition from the industrial economy to the digital economy on a global scale, value networks and intellectual property rights. From the point of view of transition, (Malone and Laubscher, 1998) claim that the information revolution changed the nature of business activity. As information can be shared instantly and economically on a global scale, the value of centralized decision-making and expensive bureaucracies is greatly reduced. Second, (Brand, 1999), trade is being accelerated by the digital and social media revolution.

The role of trade is to exploit and absorb these shocks. Some efforts focus on developing new infrastructure, while other activities emphasize governance and evolving culture. (Rifkin, 2000), notes that real estate has become a commercial burden in network-based markets. From an infrastructure point of view, (Tapscott, 1996) compared the information networks of the new economy with the highways and the electricity grid of the industrial economy, so no country can succeed without a state-of-the-art electronic infrastructure.

According to, (Schwartz, 1999), in the future, large companies make their purchases, invoice, document exchange and logistics, will be made through global networks that connect n computing devices. Companies will be able to provide 24-hour service because customer requests are transferred from one time zone to another, without customers being aware that the work is being done on the other side of the world. (Boyett and Boyett, 2001) state that the larger the network, the bigger the market and its value. According to, (Kelly, 1998), in a network economy, value is created and shared by all members of the network, not by individual companies. Economies of scale derive from the size of the network and not from the enterprise. Similarly, the value flows from connectivity.

According to (Shapiro and Varian, 1999), the network economy raises important questions about intellectual property, since the first copy of the information was produced, the production of additional copies costs virtually nothing. (Rifkin, 2000) proposes that as markets pave the way for networks, ownership is being replaced by access rights because ownership becomes increasingly marginal to business success and economic progress.

Social well-being is the set of factors a person needs to enjoy a good quality of life. These factors lead the subject to enjoy a quiet existence and in a state of satisfaction. Social well-being therefore encompasses the things that focus positively on quality of life: decent employment, economic resources to meet needs, a home to live, access to education and health, **tempo** time **ser** for **leisure**, etc. Although the notion of well-being is subjective (what is **good** for one person may not be it for another), social well-being is associated with objective economic factors.

The role of any State is to promote social welfare among all its citizens in that country. To this end, measures and policies are needed to correct the injustices of the capitalist market. The distribution of income and the development of free and free social services for all people are necessary conditions to achieve social well-being. The possibility of expanding social well-being to all social strata of each country implies the existence of wealth (to respond to state spending). With each government ensuring the equitable distribution of the wealth created.

e. Democracy

According to Plato, (in: Werner Jäger, 1979, 1936), the essence of democracy, as he saw it in his hometown, is that "all citizens attain equal rights and public office were filled by lot. He appreciated the knowledge of the experts, but democracy as a symbol of a regime gave the judgment of each one an equal participation in the resolution of the supreme problems of the State."

Plato viewed the ideal society as a society stratified by merit, incompatible with the proposals of equality, and the resentment of what affected it in the face of the circumstance that led to Socrates death could not be lessened. In this context Plato's criticism, the essence of the Greek concept of democracy is extracted: "*the idea of absolute equality, the apex of which was manifested in the provision of public office by lot*".

According to Plato, "*The city exudes freedom and within it everyone can do what it gives them in Ghana*". The freedom it is about is to feel free from all the class of duties, to organize life as it best comes. It is the triumph of the individual. The Greek democratic man criticized in Plato would correspond to the contemporary *individualistic type*, ambitious, able to become miserly and tortuous; thus, a risk for democracy to degenerate in its impure form.

Equal rights for the filling of public offices, so that everyone is guaranteed to participate in the government. This is the essence that was bequeathed to us by Greek antiquity to guide the evolution of the concept of democracy. Since that date, the dilemma of how to achieve equality has been discussed without stifling the difference; how to include the individual as a social unit, without denying the person, as a universe of aspirations.

The concept of democracy as conceived by the Greeks, in their transition to modern democracy, maintains in its entire the titration of the power of the people, but alters the way or the procedure of how that right is exercised. From direct democracy to representative democracy.

(Madison, 1791-1795), defends representative democracy in texts such as: "The scheme of representation as a substitute for a meeting of citizens in person being at most but very *imperfectly known to ancient polity, it is in more modern times only that we are to expect instructive examples*"

This shows the imperfections of direct democracy for the exercise of government (elitist view), poorly disguised under logical arguments, such as the territorial dimension and professional specialization. The territorial dimension constitutes a physical obstacle to the exercise of direct democracy. Likewise, participation in government business is not harmonizable with the individual concern of the citizen to resolve their private affairs that take him most of the time.

f. Digital Capitalism

Technological changes are always accompanied by narratives in which optimistic interpretations predominate, whose function is essentially legitimizing, hiding the power relations that drive or that are underlying the processes of technological change, relationships with social consequences, based on the generalized digitization of processes, products and services.

The decade of the years and seventy was lavish in diagnoses that pointed to the relevance of a series of technological developments and economic trends – then manifested mainly in the United States – on the basis that it was argued that advanced industrial societies were undergoing a fundamental social transformation, equivalent in scale and importance to the transition to industrial society during the eighteenth and nineteenth centuries. The most diverse denominations then began to refer to this new society: an active society, a service society, a knowledge society, a technocratic society, an interconnected society, a telematic society, a leisure society, a post-capitalist society, an interactive society, a multimedia society, a post-industrial society. The most successful name was the information and knowledge society.

Most of the research was based on the consideration that new information and communication technologies as "technologies open par excellence, regardless of economic, social and cultural weights", so that the evolution of everyday life was also open to a plurality of futures. Open future full of optimism, until one could conceive a whole saga of post-industrial utopias according to which, together with the hand of new information and communication technologies, the expected human liberation in the form of productivity and material abundance, communicative fluidity and personal self-realization, would arise.

Some went further in considering the revolutionary nature of the transformations that were being experienced by the more developed countries. The communicator of the new society, Alvin Toffler, expressed it in this way: It has become a cliché to say that we are living "a second industrial revolution". With this sentence, we intend to describe the speed and depth of change around us. But besides being vulgar, you can cheat. Because what is happening now is most likely bigger, deeper, and more important than the industrial revolution. In fact, a growing and trustworthy opinion group argues that the present moment represents nothing less than the second crucial milestone of the digital society.

IV. THEORETICAL-METHODOLOGICAL FRAMEWORK FOR RESEARCH

a. The Information Economy

Introduction

The notion of information is polysemic. It is, according to the case, simple sign or already knowledge. She answers codes and signs up for a social relationship. It not only makes sense in relation to this social relationship, but also the exchange of information is itself a major component of this relationship. Of course, the perspectives that the social sciences can take to analyze the notion of information are multiple. The economy, in addition to the diversity of approximations, can never reduce this plurality. The information marks at various levels the individual and collective components of the agents. Each school of thought makes a different point about this or that aspect, but it cannot therefore pretend to take care of the set of situations where, in production, consumption or exchange activities, the notion of information is involved.

This finding is based on the start of the contemporary debate on the information economy, with information highways, virtual enterprises and their teleworkers exploring the various facets of the way different theoretical approaches deal with information. Somewhat paradoxically the bet is to make the diversity of the approximations of the information economy allow to clarify an important but dedicated debate on the digital information society, better than could do it a specific theoretical construction, too spontaneously *ad hoc*. In order to understand the nature and breadth of the transformations of our society that are aware of our ways of treating, storing and circulating information, it is useful to resort to relevant theoretical research tools, although the field to which they are addressed is partial.

This need for theoretical tools is all the clearer as the phenomena in question are, at first glance, perceived as brutal and contradictory. And so it is with telework, for example, often presented as a threat of massive job destruction as a result of the shift in of strictly codified tasks thanks to new information and communication technologies, but also as a new opportunity to better aped and adjust working times by developing other socio-professional, family and civic benefits. Another reason for debate is the accelerated and broad functioning of

markets on a global scale and, first, financial markets where transactions are of increased effectiveness, are mixed with fears that the brutal adjustments under development will generate financial crises.

It is by no means the resumption of the eternal debate on the advantages and disadvantages of technological progress. The evolution of information and communication technologies has been spectacular in the continuous increase in the capacity to store, treat and transmit information, so the number of issues that arise are inherent in the development of markets, the growth of the division of labor and the accumulation of knowledge. The multiple aspects of contemporary economic transformations concern the production, transmission, treatment and use of information, as well as the theoretical problems that these changes cause.

With the complexity of modern economies, information is being a determining factor. In order to understand the economic transformations, some relevant questions raised by some economic theories and the contribution of some experts with complementary approximations in the field of information or knowledge to better contribute to the debate on the impact of information on the economy are presented.

The aim is to introduce some issues related to economic analysis, but also to the implications of economic policy, into an economy where information and knowledge represent an added value, even strategic. These issues start from several stylized facts, about the use of new information and communication technologies or in the mobilization of knowledge both in production processes and in the functioning of the market and labor. But this pragmatic approach can only be read in view of the great structural transformations that mark the contemporary period.

What is information economics?

It is useful to analyze the contributions to recall the essential question: how to characterize what we can qualify as a knowledge-based and information-based economy? A whole set of discourses on the information economy seems relatively sick of a tautological approach where the information economy is explicitly defined by the reference to the importance of the use of information and communication technologies. Different theoretical approaches to the notion of information allow us to understand the way economic agents use, treat, or spread information and knowledge.

Talking about the information economy has at first sight several possible meanings. From the perspective described here, the notion of information economics is used to emphasize that one of the best characteristics of contemporary developed economies has expanded and diversified their use of information in all forms and at all levels. In a more complete way, the information economy considers the set of knowledge and the added value of knowledge that goes alongside technological developments.

The notion of information economics then qualifies a certain historical phase of the development of our economy. All the characteristics of such economies undergo an analysis of the growth scenarios that correspond to it. These scenarios are connected to several levels, according to what the analysis involves on productive activities, the functioning of the market or the evolution of wages. If this perspective is with given, the notion of information economics is still poorly defined. Certainly, the economy has no affinity for information and knowledge so specific, to significantly influence how it works. On the contrary, changes that consider affinities, have strong impacts on how they operate.

If the issue deserves to be put the threads of the causes to the effects that result, are at least poorly established and deserve further investigation. This research can progress by questioning the rule that the different theoretical approaches in the economy confer on information and knowledge and by confronting these analyses with the observable changes in the functioning of markets or the organization of production and consumption. There is also another perspective to address the notion of information economics. It considers the central object of the economy of the entire system that produces, disseminates, and interprets information. From this point of view, information is a natural or produced resource, from which one can follow the dissemination and the conditions that preside over it. We then talk about information economics without reference to a precise historical period, a little, as is done for education, health, or safety, to claim to cover all its aspects.

Thus, there is a whole set of approaches dealing centrally with information. We will use these various approaches to illustrate some characteristics of the advantages of information in the confidence of the functioning of markets and in the placement of productive organizations, as well as ways of life and consumption. The notion of information economics has come out of the heart of contemporary debate that largely addresses the circle of economists. Indeed, the echo of global debates underlines the greater importance of the new structural distribution that these technologies are. These questions start from the observation of rapid dissemination and in all areas of economic activity through information and communication technologies.

But this is not just structural change that has led to giving information a more important role in the economy. The evolution of territorial activities (services), the extension of markets and productive combinations on a planetary scale (globalization), such as the accumulation of information and knowledge (education) thus play a decisive role in the characterization of a new structural distribution.

Tertiariation

There are several ways to address this structural change, according to the observation of the growing importance of third-rate activities at the heart of productive activities or in the way markets work with their logistics, processing activities and dissemination of information. This gives the impression that information in various forms plays an increasing role in economic development, not only in services, but also in a whole set of tertiary activities that have been regulating productive activities and changes. This phenomenon is contemporary with the spread of a new technical system centered around ICT's.

This phenomenon has long been a trend in developed economies, the growth of service activities within organizations and intermediation services (such as banking, insurance, transport, and communications). Between 1970 and 1993 service activities between organizations, including financial services, nearly doubled, and accounted for about 18% of total employment in large OECD countries, (Castellset Aoyama, 1994).

Economic operators are aware that only economic activities increasingly deal with information and knowledge, mobilizing multiple knowledge, but also that the functioning of markets participates in this complexity, calling for a whole range of qualities that can benefit those who possess the information or can acquire it. The globalization of banking and financial activities supported by ICT's provides new information on a global scale, 24 hours a day and 365 days a year, completes this image of a virtual sphere where information flows propel the world economy.

Information as an Economic Category

Making the theory of what you might call the information economy is not an easy thing. The analysis of what is meant by information economics cannot in any way progress on the basis of empirical finding on the growing place it occupies in all the activities of our economy, linked more or less directly to the collection, treatment and transmission of information, knowledge and knowledge of all nature.

It is necessary to know more the specificities that such an economy will have: the economic status it confers on information in the different activities; the determinants of value and the modalities of the production of the different forms of information are integrated into the economic sphere. It is not safe that one can achieve the goal and produce a theory of the information economy, but one can undoubtedly pursue more thoroughly than is customary, the specificities of the gains of contemporary developed economies of information.

To advance in this direction it is proposed to confront a whole set of issues, such as the greater and plural function of information in the economy and the treatments of the notion of information in the various contemporary economic theories. In fact, the economic literature has for three decades seen work on the role of information multiply. These works are increasingly diverse and elaborate and deserve in some way the attention on whether they only want to broaden our perception of this so-called information economy in a structured way.

b. The Evolution of Technologies

Information and Communication Technologies (ICT's) were an important instrument for the transformation of industrial society in the information and knowledge society. It is a networked society, emerging a new social morphology, and gains economic, social, political, and cultural primacy. According to Orth, (2002, p. 22), one lives in a culture and a society that is constantly changing, either because the economic, social, political and cultural contexts are increasingly massified, internationalized and globalized, or because the relations of life, study, work and capital are changing rapidly and constantly.

According to (Santos, 2013), it is possible to prescribe that from the technical uniqueness (unique technical model), based on the capitalist system and the form, as the process of globalization is configured, there is a significant transformation of consumption into ideology of life, making citizens consumers, massifying and standardizing culture, and form that often contributes to the concentration of wealth, in the hands of a few. According to (Ney Jr, 2002), "the current information revolution is based on the rapid technological advances of the computer, communications and software, which in turn led to extraordinary reductions in the cost of processing and transmitting information", as well as, "in ideal terms, the Information Revolution will repeat the successes of the Industrial Revolution. Only this time, part of the brain's work, not the muscles, will be transferred to the machines." For (Cardoso, 2007, p. 102), information seems to have replaced energy as a central element of economic life, first of the most developed countries and then for all areas of the planet and subject to market rules.

It is observed in this panorama that the Internet was the apex of the Information and Knowledge Society since it allowed the free movement of information throughout the world. Furthermore, "the first stages of *Internet* use in the 1980s were announced, such as the arrival of a new era of free communication and personal fulfillment in virtual communities, formed around communication, mediated by the computer", (Castells, 2003, p. 100). According to (Lojkin, 1995), "the transfer to machines of a new type of abstract brain functions is at the heart of the informational Revolution", emerging the need for restructuring capitalism that drives the adoption, diversification of media and the development of information and communication technologies and their networking.

ICT's provides the great legitimacy of the expansive political power, which assumes all spheres of culture. In this Universe, ICT's also provides great rationalization of man's lack of freedom and demonstrate the "technical" impossibility of being autonomous, of determining people's lives. This lack of freedom does not arise, either irrationally, or as politics, but rather as work. Technological rationality protects, the legality of domination, rather than eliminating it, and the instrumentalist horizon of reason opens to a **rational totalitarian society**.

According to (Gonçalves, 2003, p. 138), *cyberspace* is the main vector of the Internet, and its striking characteristics are invisibility, intangibility and intercommunicability. The processing of information by computer gave rise to legislative and judicial movements to protect rights over information and the regulation of access and use. The Internet is characterized by being a communication space without mediator, structured according to an "all-all relationship". Thus, relationships between peoples are given and interaction with the worldwide network of **computers, which** stores the most diverse types of content, whether they are made available by the users themselves about their *preferences and their private life or by the servers themselves. It turns out that by the interaction generated on the network, its storage, and the distribution of content, it becomes virtually impossible to remove information once posted online.*

According to (Nissenbaum, 2010, p. 21), the great difficulty faced in this context is to separate the public and private spheres from each individual from what should or should not be available, and available to all, in a virtual environment. Therefore, "information technology considers itself a major threat to privacy, because it allows for ubiquitous surveillance, gigantic databases and a rapid distribution of information around the world".

For (Habermas, 1997, p. 92), the public sphere can be "described as an appropriate network for content communication, decision-making and opinion; in it the communication flows are filtered and synthesized, to the point of condensing into public opinions encased at specific times." It is in this sense that the aspirations of the next design of the text are given, aiming to provide a debate between the right to privacy and intimate life, of what may or may not be, linked to the existence of each person, characterizing what is of private interest or what can generate, a right **to forgetfulness**.

c. *The Digital Society*

It will not be an exaggeration or a blatant misunderstanding, to affirm that the current society is increasingly qualified by the digital adjective, where new information and communication technologies (ICT's) have constant daily influence, configuring themselves as, mediators of social relations, the economy and even the way to produce / disseminate knowledge. There are forms of knowledge absorption about users in a ubiquitous way, in which ICT's new forms of surveillance (Lupton, 2015, p. 02; p. 189). Digital ICT's play a crucial role in the process of globalization, as a phenomenon characterized by the wide circulation of people, ideas and habits, which although it has not started historically with technologies, develops at high speed through them (De Mul, 2015, p. 106).

The increasing insertion of Information, and Communication Technologies (ICT's) in people's daily lives has promoted a deep dependency relationship between them. In this context, daily, actions have become essentially informational, given the need for mediation for their performance.

The society original is a complex society of technological innovation and communication, in which there is the creation of new environments and changes in, the organizational dynamics of people, in the way people understand reality, changing the way they relate to the environment, with other people and how, they conceive in the face of reality itself. Both senses can be understood, as arising from the informational revolution, promoted mainly from the attempts to understand human intelligence, via computational bases

The works developed by (Turing, 1950), had great influence in the studies of the second half of the twentieth century, including in Philosophy, mainly by its algorithmic approach to the nature of thought, in which he proposes the thesis, according to which, "thinking is calculating" (Turing, 1950, p. 436). This thesis, given that digital computers operate from calculations and manipulate rules for the organization of symbols, if we consider that thinking consists, in the activity of manipulating symbols, according to a set of logical rules, constituting algorithms, then digital computers could, in principle, think. Once intelligent thinking is understood mechanically, it would be possible to construct mechanical models of the structure and dynamics of this type of thought. This understanding allowed the development of mechanical models of the mind, which initially generated two aspects in Cognitive Science, (Teixeira, 1998):

- Strong Artificial Intelligence - is one in which mechanical models of the mind, when successful, not only simulate/ emulate mental activities, but explain and instantiate such activities.
- Weak Artificial Intelligence – is one in which the model is only an explanatory tool, limited to intelligent mental activity.

The common point of such nodes is that both accept the thesis that to simulate is to explain, in order to attribute to mechanical models, the value of theories, in which the computer is used, as a fundamental tool. As for the social sphere, the development of studies of information theory promoted the social changes that are currently experiencing and that have generated new types of problems, especially those that relate to action / technology /

environment. Given its impact on the academic and social spheres, the approximation between Philosophy and Information Science, and the role of computers in the development of theories, theoretical production occurred concomitantly with technological improvement.

(Floridi, 2008, p. 3-4), states that during the second half of the 20th century events such as: the massification of the computer, which promoted the generation of the "personal computer"; the advancement of scientific discoveries in function of the use of ICT's; and the emergence of new ways of expert mean the world, from such technologies. These events illustrate the influence of ICT's in various areas of society (sociological, economic, scientific, and cultural), providing elements for the characterization of it, such as the information and knowledge society. According to (Floridi, 2002, p. 127): "Post-industrial societies are nourished, by information".

ICT's acquire a central role in the characterization of the digital society, to the extent that they are present and related to the person and their well-being, and in their continuous use in everyday situations (e.g., leisure, work, etc.), constituted relationship of dependence, between the person and the TIC's. This relationship is strengthened, according to Floridi, from the following factors:

- Increasing the power of ICT's, while reducing their cost of production and marketing.
- Improvement of ICT's in their interaction potential (machine-machine and mem-machine).
- The rise of the zettabyte's era (dated 2010).

The factors indicated are responsible for the approximation between people and ICT's, generating deep relationship of dependence for the performance of routine actions in today's world. This dependence is based on the digital presence, as a mediator of common actions, such as financial movement (home banking), the acquisition of products and services (virtual stores, e-commerce), personal and professional interrelationship (via social networks, such as Facebook, Twitter, or dating apps such as Tinder), access to movies (via streaming, YouTube, Netflix, etc.), urban mobility (via app, Uber, Taxi 99), making connections (using the network, via Skype, WhatsApp), the practice of physical activity (Run keeper, for example), professional activities via SOHO (small office / home office), political organization (via websites or social networks), among others. Situations in which there is no mediation of an internet-connected artefact by the **persons**, but which require technological mediation by the service to be requested, such as: payment by credit card for face-to-face purchases, biometric systems for the removal of books in libraries, among others..

In addition to understanding the influence of ICT's on the constitution and alteration of people's self, the three types, of self-highlighted by (Floridi, 2014, p. 60) are explained:

- **Personal Identity** - it concerns "who we are". We live in an era where people spend a great deal of time transmitting information about themselves, interacting digitally with other people, which is a good example of how ICT's is affecting and shaping people's identity.
- Self-conception - consists of "who we think we are".
- **Social elf** - concerns what we are, from the thought of other people.

It is mainly this third notion of self that ICT's have a deeper channel of action in the conception of people's identity, because there is a growing support and overvaluation of social networks, illustrated, for example, by the intensification of a "narcissistic culture".

The Web enhances narcissistic culture, typical of our time, by expanding the forms of self-celebration and self-promotion. Relationship sites, in turn, end up encouraging vanity and competition. [...] young people strive to show in their profiles, photos and texts that value them and promote the increase in the number of people they add as "friends". [...] This type of behavior is justified by a constant search for attention and recognition. The ease of access to information about themselves generated by third parties, promotes self-understanding from others (social self), constitutes a scenario in which people, especially those corresponding to Generation Z, feed the network, with personal information intensely.

The greatest of all changes is the transformation of the information and knowledge society into the digital society. The center of work was 'distance work - telework'. In developed country societies, access to good jobs and a professional career will increasingly depend on a university degree with distance work, anywhere, in a country, in the globalized world. That is, the logical result, since we stopped working in the office and in large urban centers, it was through intellectual work and teleworking was reached at home or elsewhere, outside the large urban centers. This last step represents a break with the past.

- The fact that knowledge and education have been a passport to the achievement of good jobs and a career has meant above all that in society, companies are no longer the only way for someone to progress in life and have become one of several opportunities available.
- Knowledge has become the capital of developed economies and knowledge workers, which determines the values and norms of society.

The big challenge is to maintain the commitment, with the economic performance necessary for organizations and countries to remain competitive. Governance and entrepreneurship contain the entrepreneurial spirit. They are not antagonistic concepts, nor mutually exclusive. Both are always necessary and at the same time. Both

must be coordinated, i.e. both must work together. No existing organization can survive without innovation and at the same time without being managed.

i. Digital Capitalism

According to (Gary T. Marx, 2015, p. 735), surveillance is tied to verbs such as "look", "observe", "supervise", "control", "inspect", "monitor", "guard" or even "follow". Many of the examples for understanding contemporary ways of obtaining information are based on cognitive skills through technological artifacts, such as software and automated processes. However, such technical means may also involve sophisticated forms of manipulation, with seduction, coercion, deception, unambiguous information, and other special forms of observation, (Marx, 2015, p. 735-737). Surveillance has become more deceptive over time and be something harder to defeat than before, after all many forms are so ubiquitous that Marx's omnipotent are generally presumed. Surveillance can, succinctly, take place on the human routine, the semi-conscious "autopilot" and often even the biological instinct of our sensory receptors that are ready to constantly receive information from whoever is territorially close, (Marx, 2016, p. 16).

With the development of language, numerical and written, and of different forms of social organization involving larger political entities, more complex and systematic forms of surveillance emerged, based on counting, registration, interrogation, information, infiltration, confessions and the expanded use of tests, (Marx, 2016, p. 17).

With the emergence of industrial society, new tools of surveillance and communication emerged, individuals, groups, and contexts using technological means to extract, infer or create information, (Marx, 2016, p. 19-20). Examples can be found in computer profiles, which have large data sets, video cameras, data about DNA analysis, GPS, electronic monitoring, drug testing and monitoring made possible by social media and mobile phones.

The BIG data industry establishes a system in contemporary society, where the world and life are transformed or mediated by data, and this is a fundamental paradigm shift for contemporary society, (Beraldo; Milan, 2019, p. 01). The nature of databases is inherent to any software, which basically performs programming of data that can be divided into four operations, (De Mul, 2015, p. 106): a) add; b) search; c) change; and d) destroy (command that can be sorted by the options of insert, select, update and delete). Together, these commands constitute the dynamics of database ontology.

In the age of BIG data, databases are increasingly connected to each other and with connected data streams such as Google searches, social media interactions (Twitter, Facebook, Instagram, LinkedIn, Reddit, etc.) and online commerce. These connections derived from BIG data are tracked and used for the purpose of configuring user profile and real-time data mining by private and public organizations, (De Mul, 2015, p. 107-108). From this same logic it can be inferred that, due to data from production processes, money transfers, GPS devices, surveillance cameras, biometric measurements and the use of smartphones and other localizable devices, an immense global database is being formed and will transform the ways of life, work and thinking, (De Mul, 2015, p. 107).

It can be understood that the impact of databases is vast, since it is not limited only to the universe of computing, since they evoke acts in the material world. Examples of this are the biotechnological databases used for genetic engineering purposes, implementations in industrial robots and the airport profile design system, with the aim of identifying potential terrorists, (De Mul, 2015, p. 107). In this thesis everything that can be identified through data becomes an object of control of such databases.

Celebrities, politicians and other public figures are subject to constant monitoring (whether in public or private) and the great facilitators of this exhibition are not only the paparazzi, after all, but anyone with some mobile device can also make an instant live broadcast.

21st century capitalism has found a massive new raw material to appropriate: stored data, (Srnicsek; From Sutter, 2016, p. 106). Through a series of developments, the electronic platform has become an increasingly dominant way to organize business, monopolizing, extracting, analyzing, using, and selling data. The business models of the Fordist era were capable, only in a rudimentary way, of extracting data, from the production process or from the customer's use. The era of lean production changed this slightly, as global supply chains 'just in time' required data on the status of stocks and the location of supplies. The problem is capitalism, not technology

ii. The Dominant Discourse

Dados outside the company remained almost impossible to obtain; and even within the company, most of the activities were not recorded. The electronic platform, on the other hand, has data extraction incorporated into DNA, as a model that allows other services, goods and technologies to be built on it, as a model that requires more users to obtain network effects, and as a digital medium that simplifies registration and storage. All these characteristics make platforms, a central model, to extract data as raw material. Data can be used in several ways to generate revenue. For companies like Google and Facebook, data is a feature that can be used to attract

advertisers and other stakeholders. For companies like Rolls Royce and Uber, data is at the heart of beating the competition: it allows these companies to offer better products and services, control workers and optimize their algorithms for a more competitive business.

With Google's system in place and Facebook's development in the online landscape — targeted advertising, surveillance capitalism adds new logic of accumulation where its guidelines and financial prowess dominate the virtual sphere of connected networks and this grossly disfigures the previous dream of digital technology as a empowering and emancipatory force, (Zuboff, 2019, p. 01). Today, this surveillance capitalism can no longer be identified punctually, as it was, until some time ago, Google exclusivity, a pioneer in this form of data capitalization), since, this logic has expanded, in a way with which Silicon Valley has expanded to various sectors of the economy and its vast options of products and services, (Zuboff, 2019, p. 01).

Both capitalism and surveillance can no longer be confused, as belonging to an individual corporation, after all digital technologies today can take many forms and reproduce various reflexes, depending on their social and economic orientation. For (Zuboff, 2019, p. 01) economic guidance is the master, while technology is the puppet. From change in the logic of the global economy and the global technological market, we currently have a work environment characterized by less job security, stagnant wages and where the nature of work has become more intense and idiosyncratic; several employers believe that they must obey a market imperative that constantly pushes for greater productivity, so that their organizations remain competitive, (Connolly, 2017, p. 69).

Therefore, attempts to satisfy such demand, foster an unceasing search for efficiency, and the emergence of strict performance quotas. Surveillance capitalism is not the same as algorithms, sensors, machine intelligence or platforms, although it relies on all of this to express its will; soon surveillance capitalism is indeed an economic creation and is therefore subject to democratic contestation, debate, review, restriction, supervision and may even be illegal in many cases, (Zuboff, 2019).

iii. The New Forms of Surveillance

Society is interconnected due to the digital technologies that serve to meet the most diverse human needs. While users are often aware of the risks they run with such technologies, they do not understand the complexity of the online permissions they grant or the destination of their personal data.

Surveillance is a terminology that has not emerged with the digitization of technologies but has expanded through such technologies. Not only security cameras and real estate cameras are able to capture images and sounds, after all applications and mobile devices are the most common among technological devices today. The evolution of technological surveillance was linked to the process of individualization and self-responsibility of the capitalist economy, in which it is the user who produces the data of his own surveillance, being subject to the process that his data is necessary for improvement of the systems, producing value for the algorithms.

Surveillance configures a constant situation, which increasingly evolves beyond the paradigm of work and public safety to the core of everyday life, analyzing and conditioning behaviors, causally linked to utility applications and social networks. The search for increased utility and satisfaction of desires, consequently, drives an economic logic of the market. Entrepreneurship is focused on the commercialization and production of new technologies that adapt to the needs of consumers. Capitalism that emerges from such logic presents several contrasts, and among them, the threat against people's privacy. Information stored in databases that will serve various purposes, including policy-related purposes, is exploited.

d. The Development of the Digital Society and Democracy

i. Introduction

Considering the assumption that, in the global sphere, the convergence of information and communication technologies (ICT's) does not necessarily lead us to the identification of ethical, cultural, social, and democratic values. A new model of socioeconomic organization is observed, the model of global digital capitalism, through the instrumentalization of information and communication technologies, to develop new forms of increasingly sophisticated exploration (Basso, 2005). Related to the structural changes in the globalized economy, most of the Gross Domestic Product (GDP) of a country to be generated by the information sector, surpassing the other sectors of the economy (Moore, 2014).

This social organization assumes that a large part of the economically active population works in activities related to production, marketing, information-related services. In the United States of America, in 2016, about two-thirds (2/3) of the workforce was directly or indirectly linked to the information sector (École..., 2020). From this angle, telecommunications and information have become a vital resource for the country's social well-being, national security, and competitiveness (Aguadero, 1997).

Digital capitalism is based on an economic model based on the development of new mechanisms for exploiting the value produced by work, through the instrumentalization of disinvestment, without precedents financial type accumulation, 'ICT's.

result in massive indebtedness of governments and families (Santos, 2013; Mef, 2017). For more than 20 years, government spending has exceeded revenues. This situation can be explained by the state's desire to adopt an

expansionary fiscal policy with the aim of stimulating economic growth and job creation from the perspective of the new structural changes of the globalized capitalist project (Ministère..., 2017).

The development of the information-based digital economy is conditioned by the ability to produce market value. From this perspective, countries operate structural changes in their economies, and aim to increase their market shares in world trade in goods and services, as well as the global opening of these markets, (Porrás, 2015, Ventura, Ventura, Ventura, Broner, 2016).

The penetration of digital capitalism is not linear. Capitalist relations of production do not replace non-capitalist production relations. The penetration of digital capitalism partially destroys them and adapts them. The dematerialization of the economy for the economic activities of the service sector (with complex apprehension of market values: financial institutions, transport and communication, domestic and business services) results in a (re)mechanization of capitalism.

ii. The Economic Development of Social Networks

In the 1990s, in the initial phase, the Internet could not find a viable business model, which would provide it with a minimum of stability and coherence, that is, an aesthetic techno system that ensured coherence between the modalities of production, consumption and financing, (Leroy, 1980 Herscovici, 1995). These difficulties characterize all activities that work in network: in the initial phase (*startup*), while the number of users is insufficient, the network knows a period of deficit (Herscovici, 2013).

In the consolidation phase, from the 2000s on, the system overcame the deficit phase and managed to reach the critical mass from which the networks became profitable. The system has succeeded in building an economically viable mode of sectoral regulation, based on the development of intermarket, i.e. On the sale of audience to the different advertisers, and data relating to those audiences. The various electronic platforms have developed a double-sided markets strategy to reach specific audiences and ensure better quality when it comes to receiving the advertising message.

The development of algorithms and the sale of the collected data have allowed the diversification and expand in of the sources of financing of electronic platforms and thus creating markets in which access modalities and audience data are sold. The increasing use of increasingly complex and sophisticated algorithms had the following implications:

- reach specific audiences, which has enabled the diversification of funding sources and, therefore, to intensify the market for social spaces built by those users.
- Collect a series of data and determine the social and cultural trajectories of different users, which represents the different sources of financing of electronic platforms. These data are sold to different actors and used by these actors for economic and/or political purposes.
- The informative efficiency of these algorithms allows to elaborate more reliable expectations, from a much more representative sample of the public: the larger the sample from which the predictions are drawn, the lower the statistical errors, and the more reliable these predictions are, and that allow a greater appreciation of their products and / or services, in the market.

Digital capitalism is implemented outside of products and or services. In the different markets, information is valued from its specificities, based on the concrete work applied to it (Herscovici, 2014). Being the object of exchange, information can be associated with products and or services, in the sense defined by classical economists. From a more general point of view, information is heterogeneous, and is valued in different markets based on its heterogeneity.

Evolution translates into profound changes, with regard to the modalities of production, distribution and management, of the social value of information, which corresponds to the abandonment of the classical (and Marxist) theory of work value, (Marx, Grundisse, 2011).

From a theoretical point of view, it is not possible to study the economics of social networks according to the concepts of classical economists, whose maximum exponent is Marx, for the following reasons:

- The "production" of information by users is valued socially and economically from specific works, i.e. that "production" cannot be associated with a specific commodity. It is not valued because of, the amount of abstract work contained therein. This type of "production" does not correspond to the concept of physical merchandise: it is a production that is valued from its specificities and that cannot be produced by the application of abstract work.
- Since it is not a physical commodity, it is not possible to speak of exploitation of workers (users), according to Marx's theoretical concepts. Capital gains is one of the components of the value of the commodity, and in the absence of goods, it is not possible to conceive capital gains.

The only productive work (strict sense) is one that is directly linked to the "construction" (constitution) of the infrastructures that correspond to the implementation of networks and the design of the different algorithms that allow storing and valuing, in secondary markets, the data that relate to the different audiences. These works are abstract works, because they are not valued from their specificities, but from their functionalities: they are the ones that allow access, treatment, storage and disseminate the raw information initially produced by users.

The extent of market logic and the economic nature of information, from audience sales to tracking, are the different modalities of expanding market logic. This extension of market logic originated from two dimensions: the first relates to the social and geographical extension, from the New Law and Economics of Chicago, when markets were created linked to the exchange of pollution rights between different countries. Digital capitalism developed during the first industrial revolution, from the exploitation of natural resources, and currently expands its logic to immaterial and symbolic resources, information.

During Fordism, the main media outlets consisted of selling the modalities of access to audiences, and became an important source of financing, and the first endless markets that developed with the press, radio and open television emerged. Today, there is an intensive expansion of market logics: in addition to selling access to certain audiences, it consists in developing and expanding other sources of financing linked to the traceability of users' behavior, whose social trajectories are sold to other agents, for commercial and/or political purposes.

There are different types of market, depending on the different types of information. Each type of market corresponds to a certain type of information and a certain type of exchange relationships. The primary market has a direct relationship with the final consumer: the newspaper reader, the traditional media audience, and the social media user, who produces raw information. This information can be produced on the network or off the network, but distributed free of charge or almost, by platforms such as YouTube videos, photos on Instagram, articles published in magazines and accessible on Google, which will be exploited by electronic platforms and different agents in the intermediary markets. On the other hand, users of social networks produce information relating to their social and cultural trajectories, which will be tracked, collected, and organized by digital platforms and the different data collection systems, "Big Data".

The raw information produced by consumers is an abundant and non-economic good, which is why it is free. However, digital platforms take ownership of this raw data, providing users with free or semi-free access to certain services. In primary markets, the information also presents the characteristics of non-exclusion, indivisibility and collective good:

- No deletion - users have free access to the information available on the network.
- Indivisibility - the service is not destroyed at the time of consumption.
- Very collective - the stock available to users depends on the number of users.

Secondary markets are located between the final consumer and other economic agents: they exist from the moment that the raw information produced in the primary markets has already been stored, organized, and codified. Once encoded, this raw information becomes the subject of trade. One of the paradoxes of this economy is, on the one hand, these goods are traded on the markets, but on the other, depending on the character of the public good, it is impossible to attribute individual property rights to them.

Agents operating in these non-term markets benefit from a dominant position, in terms of information and receipt of, to the detriment of users who produce raw information; those markets deviate from the characteristics of pure and perfect competition. From an economic point of view, information can be compared with natural resources since it is available free of charge. It is produced from the tacit knowledge of users and, therefore, from concrete work, as defined by Marx, and is characterized by its heterogeneity.

As a raw data, information does not produce value, just as forest trees also produce no economic value; while it does not become a "raw material" in a given commercial production process, it is useless and does not generate economic value until it is the object of transformation, from the application of work. The role of social networks is to collect, process, process and disseminate, from increasingly powerful and sophisticated algorithms, raw information. This process only occurs from the moment the information was encoded. Networks develop economic stratagems at two levels:

- **Primary markets** - offering a free service to users (end consumer);
- **Secondary markets** – sale of services to access highly segmented audiences and information relating to the economic, social, and political trajectories of platform users.

In the digital economy, the consumer/user produces the "raw material" that will be sold in secondary markets, depending on the very operation of the system. Its presence in networks is the necessary condition to generate economic value. For this reason, that consumer benefits from free or almost access to the stock of the encoded and available information.

From the implementation of physical networks and the construction of algorithms, the role of networks is to generate economic value, in secondary markets, from the social value created in the primary markets; it is from (abstract) work linked to the distribution, codification and processing of raw information, that information becomes the object of commercial exchange.

iii. Social Networks and Business

Undoubtedly, one of the most changed activities in recent years around the world, there are social relationships, through online social networks, such as Facebook, Twitter, YouTube, etc. Most users who interact in these social networks, do so for different purposes, but mainly, to socialize and maintain relationships with colleagues, family, and friends, (Miralbell, 2014).

However, the opportunities and challenges that online social networks present vary from global economic activity, supported by Information and Communication Technologies (ICT's), which stimulate innovative dynamism (Lladós, Jiménez & Garay, 2008) and become one of the main foundations of the process of change experienced by the economy and social structure in the last decade, because they become a resource of massive use and application, by all economic and social agents, and as such, are the basis of the new innovative substrate that "transforms the structure of basic inputs and relative production costs" (Torrent and Sellens, 2009).

In the globalized economy and the digital networked society, the dynamics of the structure of social networks is generated from the exchange of digitally processed information and using information and communication technologies (Castells, 2009). Companies take advantage of knowledge transfer, to improve competitiveness, through the innovation of their products and / or services and production processes.

The competition stimulates the generation of new knowledge, which allows to preserve the preferred position of owners, on the Internet. This does not mean that there is a long way to go in most companies, in terms of promotion and socialization, through social networks, although existing studies have shown that this favors the sharing of knowledge, improving the performance of the company and its professionals (Miralbell, 2013).

iv. Information Asymmetries

In the digital information economy, the existence of imperfections in information is systematically translated by information asymmetries, opportunistic behaviors appear, which are incompatible with a socially optimal situation: informed agents benefit from additional revenue, to the detriment of uninformed or uninformed agents. On the other hand, depending on the nature of the public good of the goods and services produced on social networks, it is not possible to apply an efficient and individualized system of Property Rights (DP). This situation means that the contracts established between users and digital platforms are, by their very nature, incomplete.

Social media users are unable to control all the uses that are made of data relating to their social and cultural trajectories. Thus, the different laws on the protection of individual data (the latest measures adopted in the European Union) are not efficient because the isolated individual is unable to control these uses.

Social media users are unable to control all the uses that are made of data relating to their social and cultural trajectories. Thus, the different laws on the protection of individual data (the latest measures adopted in the European Union) are not efficient because the isolated individual is not able to control these uses. These contracts are incomplete, in the sense employed by (Williamson, 2002): they are not fully efficient, and this partial control implies, high transaction costs (Barzel, 1997). The screening modalities are distributed in an unequal way, which translates into inequalities, about the modalities of appropriation of the economic value created.

In primary markets, consumers/users are harmed because they are unable to negotiate a favorable breakdown of the value generated with digital platforms. The negotiation between users and digital platforms is based on the exchange of free-or semi-free access modalities against the use and exploitation of the data produced. The way to reduce information asymmetries will be the implementation of forms of collective administration.

Information asymmetries are produced by the dynamics of digital markets. When consumers / users use social networks, they leave track that algorithms, increasingly powerful and sophisticated, will use, so it is possible to track, in an exhaustive way, these trajectories.

When they go to social networks, users cannot escape or control the tracking mechanisms. The data collected and organized by the platforms or by specialized agents are, thus, another type of information which will be traded in the intermediate markets. These secondary markets are characterized by the presence of strong and large information asymmetries. Consumers/users cannot trade trading in those markets, so platforms benefit from a dominant position. Their opposition can only express itself, in a form of voluntary exclusion from the public space, in not attending the social network. The consequences of these asymmetries are as follows:

- Increase in transaction costs related to the modalities of contract establishment and management of participants' behavior.
- Users are unable to make rational decisions, since they do not know the context, from which they will make those decisions.
- *Fake news*, etc., are forms of manipulation, distortions, which make it impossible for users to make rational decisions.

For example, political choices are to maximize the utility function on the part of voters, as voters have a distorted knowledge of reality, and are unable to assess in advance the usefulness attached to their political decisions.

v. Data Capitalism and Privacy

21st century capitalism has found a massive new raw material to appropriate: data (Srnicsek; by Sutter, 2016, p. 106). Through a series of developments, electronic platforms have become an increasingly dominant way to organize business, monopolizing, extracting, analyzing, using, and selling data.

Fordist-era business models were able to extract data from the production process or customer use. The era of lean production changed this slightly, as global supply chains "*just in time*" required data on the status of stocks and the location of raw materials.

However, data outside the company remained almost impossible to obtain; and even within the company, most of the activities were not recorded. Electronic platforms, on the other hand, have data extraction embedded in their DNA, as a model that allows other services, goods and technologies to be built on it, as a model that requires more users to achieve network effects, and as a digital medium that simplifies registration and storage. All these characteristics make platforms a central model for extracting data as raw material to be used in various ways..

Data can be used in several ways to generate revenue. For companies such as Google and Facebook, data is primarily a resource that can be used to attract advertisers and other interested companies/organizations. For companies like Rolls Royce and Uber, data is at the heart of beating the competition, as it allows them to offer better products and services, control workers and optimize their algorithms for a more competitive business. Today, the data shape a scenario where mass production or those, with economic dominance, however generate alternatives, but increasingly controversial, since it comes within generic parameters of the policy (for example, against mapping and critical cartography), or are under the influence of factors that foster crucial contemporary struggles, such as against racial discrimination by algorithms), (Beraldo; Milan, 2019, p. 03).

Today the systems of Google and Facebook in the online scenario of targeted advertising, surveillance capitalism adds a new logic of accumulation where financial guidelines and prowess dominate the virtual sphere, of connected networks and this grossly disfigures, the previous dream of digital technology, as a empowering and emancipatory force, (Zuboff, 2019, p. 01).

Today, this surveillance capitalism can no longer be identified on time, as a specific company (as it was, until some time ago, Google's exclusivity, a pioneer in this form of data capitalization), since this logic has expanded, so that Silicon Valley has expanded to various sectors of the economy and its vast options of products and services, (Zuboff, 2019, p. 01).

Digital capitalism and electronic surveillance cannot be confused as belonging to an individual corporation. The end digital technologies can take many forms and reproduce various reflections, depending on their social and economic orientation. For (Zuboff, 2019, p. 01) economic guidance is the master, while technology is the puppet.

In the global economy and in the global technological market, the labor market is characterized by less job security, stagnant wages and the nature of work has become more intense and idiosyncratic. Several employers believe that the market imperative requires greater productivity, so that their organizations remain competitive (Connolly, 2017, p. 69).

To meet demand, they foster an unceasing search for efficiency and effectiveness, and strict performance quotas emerge. Electronic surveillance capitalism is not the same as algorithms, sensors, machine intelligence or platforms, although it relies on all of this to express its will, since it is indeed an economic creation and is therefore subject to democratic contestation, debate, review, restriction, supervision and may even be illegal in many cases (Zuboff, 2019).

Second, (Lupton and Michael, 2017, p. 254), digital data is influencing people's concepts about themselves, their bodies and even their social relationships; the use of personal digital data in surveillance activities is a controversial topic, after all electronic data surveillance is carried out both on a personal and interpersonal level, involving self-surveillance or straight surveillance, and this phenomenon is driven, fostered and co-opted by companies, security and policing institutions and agencies, transport organizations, employers, educational institutions, etc. (Lupton; Michael, 2017, p. 255).

Second, (Zuboff, 2019, p. 02), Google has capitalized, and its success derives from the ability to predict the future of human behavior, and the way to translate its interactions outside the market, with users as "raw material" intended for its real customers, advertisers (Zuboff, 2019, p. 03). In other words, the "**Meta data**" "that is generated by search engine users (e.g. questions on the platform, peak times for the use, gender, age, race of platform users, geo-positioning.), which until recently were considered as residue of operations or, at most, useful information for Google itself to improve its-product, became a true "behavioral surplus" (behavioral surplus), highly valued by Google, to form user profiles and, increasingly accurately, target ads to potential consumers.

The internet of things has gained great potential for realization, as well as in real-time, data collection. Wearable devices are a step towards the realization of the **so-called Internet of Things**, which is characterized by maintaining constant connectivity between the different types of common objects, in people's daily lives, such as glasses, watches, shoes, bracelets, shirts and etc. There are several examples of how mobile technology can be inserted into different accessories, whether as a source of information, communication, or entertainment, for its users. *Smartwatches*, for example, are wristwatches that work from hybridism with technology present in smartphones and *tablets*. *Wearables*, as defined by the concept of the Internet of Things, help to build an

environment in which technology is now intrinsically connected to people's day-to-day lives, in an **imperceptible way**.

The Internet of Things is a technological concept in **which all objects of everyday life are connected to the internet**, acting intelligently and sensorially. It consists of the idea of merging the "real world" with the "digital world", making individuals can be in constant communication and interaction, whether with other people or with objects such as appliances, cars, clothing, keys, tables, mirrors, etc.. There are countless possibilities to attach computing to the things that **belong to one hundred people's daily lives**.

This technological revolution is considered by many scholars to be the last step in the computer development process. As Mark Weiser, one of the most important computer science scholars, **described, the Internet of Things** is at the stage in which computer science is ubiquitously consolidated in people's lives. However, it was scientist Kevin Ashton in 1999 who first used the expression "**internet of things**" to refer to the use of technologies that could interconnect various devices and different objects, helping to facilitate and organize people's lives.

However, privacy, internationally recognized as a human and constitutional right by various democracies as a fundamental right, is devalued on issues such as national security and the effective administration of companies, (Rahman et al., 2019, p. 965)

For (Cowls, 2018, p. 145), the Right to Privacy has always been associated with technologies and their skills in capturing data or even valuable information. Simpler forms of technology, such as typing, are indeed far from contemporary forms that can collect and store data, such as security cameras. In this sense it is very pertinent to question, how surveillance and privacy relate. In common sense, surveillance is often mistakenly seen as just the opposite of privacy (Marx, 2016, p. 23); however, it implies the existence of something that accesses personal data (through discovery tools, rules or logistical configurations); while privacy, on the contrary, involves an agent capable of restricting access to personal data through the most varied complex devices.

It is possible to point out that both surveillance and privacy are factors that involve efforts to control information (such as discovery or protection) and can be connected in several ways. Surveillance is capable of abusively invading privacy, but also can be a useful means to protect privacy (e.g., biometric identification and audit trails, video cameras that film those with access to sensitive data); and privacy, in turn, can also protect surveillance (e.g. undercover police officers who use fake IDs, and forwarding anonymous calls to protect the identity of witnesses), as well as, can override it (e.g., encryption, whispers, and disguises). Thus, depending on the way in which it is used, surveillance can affect the presence of privacy and/or advertising, depending on the context and role played.

vi. Surveillance and Data Analysis

Society is interconnected in its most diverse forms, through digital technologies that serve to meet the various needs. While users are often aware of the risks they take with the use of such technologies, they do not understand the complexity of such online permissions they grant and the destination of their personal data.

The term "surveillance", which designates surveillance, is derived from the French verb "surveiller", which in turn is related to the term "vigilare" from Latin. According to, (Gary T. Marx, 2015, p. 735), this terminology is tied to verbs such as "look", "observe", "supervise", "control", "inspect", "monitor", "save" or even "follow". Many of the examples for understanding contemporary ways of obtaining information are guided by cognitive skills, through technological artifacts, such as software and automated processes. However, such technical means may also involve sophisticated forms of manipulation, such as seduction, coercion, deception, unambiguous information, and other special forms of observation (Marx, 2015, p. 735-737).

Surveillance has become more deceptive over time. Surveillance can, succinctly, take place on the human routine, the semi-conscious "autopilot" and often, even the biological instinct of our sensory receptors that are ready to constantly receive information, from whoever is territorially close (Marx, 2016, p. 16). These purposes make it possible to distinguish two forms of surveillance, at least:

- Traditional surveillance relies on unassisted senses and is characteristic of pre-industrial societies. With the development of language, numerical and written, and of different forms of social organization involving larger political entities, more complex and systematic forms of surveillance emerged, based on counting, registration, interrogation, information, infiltration, confessions and the expanded use of tests (Marx, 2016, p. 17).
- With the emergence of industrial society, new tools of surveillance and communication have emerged, which have improved the senses and cognition. Visual is usually an element of surveillance, even when, is not the initial means of data collection, so the new surveillance can be defined, as the, scrutiny of individuals, groups and contexts, through the use of technological means to extract, infer or create information (Marx, 2016, p. 19-20).

Examples of such a phenomenon can be found in computer profiles, which have large data sets, video cameras, data about DNA analysis, GPS, electronic monitoring, drug testing and monitoring made possible by social media and mobile tele. The new surveillance is more intensive and extensive, expanding the senses, thus

reducing costs and reaching more remote locations; it is based primarily on aggregating data in **Big Data**; thus, it has less visibility and directly involves the involuntary conformity of the individual (Marx, 2015, p. 735-736).

The new surveillance established in contemporaneity is the thorough examination of individuals and groups, using highly sophisticated technological means, capable of extracting information. In this sense, the use of technical means to extract and create information implies the ability to go beyond what is naturally offered to the senses and minds or what is voluntarily reported (Marx, 2015, p. 736).

The **big data industry establishes** a system in contemporary society, where the world and life are transformed or mediated by data, and this is a fundamental paradigm shift for contemporary society (Beraldo; Milan, 2019, p. 01). The nature of databases is inherent in any software, which basically uses software programs to store data that can be divided into four operations (De Mul, 2015, p. 106): a) add; b) search; c) change; and d) destroy (command that can be classified by the options of insert, select, update and delete). Together, these commands constitute the dynamics of database ontology. The dynamics of databases is not necessarily digital, since phone books and indexes are ways of grouping data as well.

Surveillance is a terminology that has not emerged with the digitization of technologies but has expanded through such technologies. Not only security cameras and real estate cameras are able to capture images and sounds, after all applications and mobile devices are the most common among the technological media today. The evolution of technological surveillance was linked to the process of individualization and self-responsibility of the capitalist economy, in which it is the user who produces the data of his own surveillance, being subject to the process that his data is necessary for improvement of the systems, producing value for the algorithms.

Surveillance configures a constant situation, which increasingly evolves beyond the paradigm of work and public safety, to the core of everyday life, analyzing and conditioning behaviors, causally linked to social networks. The search for increased utility and the satisfaction of desires, drives an economic logic of the market. Entrepreneurship is focused on the commercialization and production of new technologies that adapt to the needs of consumers. Capitalism that emerges from such logic presents several contrasts, and among them, the threat against people's privacy. Information stored in databases that will serve various purposes, including policy-related purposes, is exploited.

vii. Data Export

The electronic security of society involves not only the private sector, but also the State and relations between people. Electronic surveillance leads us to ask the question, is it good or bad? The use of data by government, security, commercial and even criminal agencies are examples of how new forms of registration reach the hands of private initiative or even individuals, with only one smartphone in their hands (Lupton, 2016, p. 114). Surveillance, as such, is not ontologically good or bad, it is the context and behavior that will characterize it in one way or another (Marx, 2015, p. 734), and the same can be said for the concept of privacy.

The context refers to the type of institutions and organizations and their objectives, rules, and expectations. Behavior refers to the type of behavior expected (either based on the law or less formal cultural expectations). Differences in surveillance contexts involving coercion (government), assistance (parents and children), contracts (work and consumption) and accessible and free personal data (personal and private in public) need to be considered, as surveillance is a generic process characteristic of living systems with information boundaries, and not something restricted to governments, espionage or secrecy.

Surveillance and privacy are not opposite concepts, in fact the latter can be a means of ensuring the first, as well as access controls to information. Uncritical acceptance of algorithms can end autonomy, and the potential for free data collection and processing can greatly harm privacy. In this sense, it is noteworthy that algorithms are capable of exacerbating discriminatory actions against minorities and other social groups (although it may not be the programmer's intention).

The challenge of designing algorithms that maximize human flourishing in the context of justice and security without causing harm should not be taken lightly, but the rewards are potentially great. Lives and properties can be protected if the design, implementation, and deployment of algorithms can be executed effectively and ethically. These challenges will not always be possible to be solved with mathematical solutions, as some problems require philosophical deliberation.

Digital networks and the paradigmatic change brought about by so-called ICT's have placed for movements, groups, collectives, and social agents a new territory for alternative radical media action (Downing, 2002). However, the internet, far from neutral, becomes a platform configured by the socio-metabolic reproduction system of capital. It centrifuges the denial and affirmation of the order, leading the economy of attention, to the information provided by internet users, monetized in the trade of **Big Data Capitalism**, (Fuchs; Chandler, 2019).

The activities developed on the Internet are the object of a mechanism of profitability of profitable corporations, which are extended according to the lifetime destined to them. To give you an idea, the five most valuable companies in the world are Apple, Amazon, Microsoft, Alphabet (Google conglomerate) and Facebook, all expressive and dominant players in the ICT's as an industry. The media concentration, which was already

identified in broadcasting, is based on the digital environment of social networks, and limits any democratizing role that it could have (Martins, 2020).

Second, (Castells, 2007), there is a confusion about the architecture of networks, seen as neutral, as well as growing a naturalization, via common sense of the activists, the Internet, as free territory (givenness by the possibility of producing content without previous limits, easily identifiable). So, avoiding the notion of class struggle, has led the activism of many social movements to a small-scale posture of action, spurred by a rejection of the problems stems from the contradiction of capital/labor. The problem lies in the fact that, while the movements surf them in the nets, an **increasingly powerful plutocratic class dominates the world without being challenged**. What is more, it relies on the "old" mechanisms of police power and the repressive state, which receives support from the main digital surveillance tools available.

In the field of politics, what we see is that communicative capitalism, instead of leading to a greater equitable distribution of wealth and influence, has allowed the emergence of a richer variety of ways of life and practices of freedom, leads most people of the world to give in to spectacle and political resignation (Dean, 2005). A utopian techno ideology is based on the illusion of a classless world by the digitization of life, something that seeks to hide the mining of waste, in the form of data that leverages the profitability of large Silicon Valley companies

"As long as the dominant cultural narrative considers technology as the weapon of the weak and the poor, and not as the weapon pointed at the weak and the poor, there is little hope that phenomena such as data extraction are actually taken into account" (Morozov, 2018, 173). The algorithms of social networks, for example, concentrate power in platforms, since they are private agents seeking profits from the commercialization of data and profiles, mapping behaviors and scaling the model of citizen participation.

The exercise of power of these private organizations that regulate symbolic exchanges and express the models of conduct takes place in the control of information traffic and, under a false appearance of participatory egalitarianism. Generates profitability over free time. These institutions also have as characteristic the execution of interconnected activities of work exploitation, in a complex cooperation format. Platforms set out the rules that determine who can participate and what conditions; decide what types of communication are allowed and which are not [...]" (Thompson, 2018, p. 37).

Digital platforms act with high selection power, which does not transpire by their sophisticated camouflage, since they do not directly operate communicative content, but allow a circulation of information configured by their economic interests. Whoever controls the algorithms controls the network. The automation of human behavior symbolizes the political technology of cementing strange preferences, of a public probed in their apparent preferences, which intensifies a network architecture facilitating reification devices. As a result of this action occurs the cementation of capitalist logics in the digital environment.

It was the Internet that created globalization and as such the formation of digital capitalism. The global village has never materialized, but we ended up in a feudal domain, clearly shared between technology companies and intelligence services (Morozov, 2018, p. 14-15). These digital fiefdoms create bubbles that crystallize and feed, in a strange way, versions of reality not necessarily sustained by a critical reading of social reality. The intentional fragmentation of networks has led to the intensification of a policy of affections that are easily eased in the social media environment.

viii. The Dilemma of Social Networks

Is it possible to escape them?

People are increasingly online, dependent on likes and ready to consume information, not validated. According to George RR Martin, social networks have terrible effects on our society... and in political discourse. The effects of social networking problems lower the human level, caused by the intensive use of social networks: addiction, deconcentrating, isolation, polarization, misinformation, etc.

The internet knows everything about people, but they have the false notion that the use of social networks is free, but someone is paying for them: advertisers. These are therefore the real customers of these companies. People think they are using a tool, but they are being sold. This is an old market maxim: If you are not paying for the product, it is because you're the product.

Computer scientists and multimedia artists are the creators of virtual reality: the product is the gradual change in human behavior and its perception of reality; what social networks want is to "change what people do, what they think, what they are", gradually and imperceptible. As? Through the algorithm.

To be sure that an ad is effective you have to be able to predict who needs the product that is being advertised, who is already interested in it, who may be interested, who is more likely to be influenced by the ad. For this forecast to be increasingly accurate, a lot of information is needed. The companies of the technologies have this information and so can sell accurately to advertisers. Social networks know everything network users do online. All. You know what people see, when they see it, where and for how long. You know when people see pictures of their ex-boyfriends, if they're looking for a boyfriend in a dating app, if they order food for one or six, if they prefer sushi or burgers, what time they go to work, what they do at night, if they have insomnia. They know all

that and more. All this data is archived, crossed, and used to make increasingly, accurate predictions about their behaviors.

Digital has advantages, but it is devouring the human essence. The monsters of technology companies such as Google, Facebook, Instagram, YouTube, Twitter, and others are devouring the human essence since it is virtually impossible to escape social networks unless you have an iron will. In Silicon Valley designers, ages 20 to 35, located in California, have made, and made decisions that impact many billion people. The people behind the screen have a lot more power than people think.

The computer builds models that predict people's actions and begin to interfere with them. The algorithm knows what video can show them that will hold them for a little while longer. What emotions encourage them to continue online. The goal is not, as some optimists say, to give things that please them to make them happy. Yes, the algorithm gives them what they want, but their goal is to increase their use of networks and the interaction they establish to give them more advertising and ultimately make money - make a **lot** of money, it is no accident that technology companies are the most powerful and that their **leaders top the lists of millionaires**.

Using the Internet is not an addiction, but always being online, from morning to night. The business model of social networks is simple: keep people on screen. On social networks nothing happens by chance. The algorithm knows everything people look for on the internet and will therefore give them suggestions that meet their interests. Likes, tags, emojis, are ways to provoke interaction; the ellipsis that appears when someone is writing keeps people on hold (and connected). Everything is designed to keep people online if possible.

The "infinite scroll", for example, acts in people's minds creating a kind of addiction that prevents them from turning off, just as the player in a slot machine always thinks that in the next move will win, by scrolling, the fact that they do not know what to follow, creates suspense. The release of dopamine (also known as pleasure hormone) is common to both situations. People can spend 12, 16, sometimes even 24 hours in a row, without sleep, using a technology. These are obviously pathological cases, but what is observed is that consumption is widening among all people. As the phone is a minicomputer, which people use for everything, whether as an alarm clock, to talk to others or to see the news, what is happening is a normalization of its use. This trend was sharpened in the confinement period.

Children learn how to unlock parental control tools in... that people are online in the order of 70%, which is very worrying. Prevented from leaving home, people were online to work, to study, to shop, to socialize, to watch movies or to play. In late 2019, a study in the United States found that people were on average more than six hours a day online. This year, due to the pandemic, this average will surely have increased. Do you check the phone before you pee in the morning or while you pee in the morning? Because those are the only two hypotheses," asks one of the interviewees in the film.

The digital "suck" and the dangers

The risks of this excessive consumption of internet and social networks are, first and foremost, mental. People who were born from 1996 are the first generation who grew up with internet and who got used to having "a digital suck" to solve all their problems. However, replacing face-to-face contacts with digital contacts will deepen loneliness, depression, and anxiety. The need to always have a reaction from the other, the pressure of the image, all this will generate mental problems, to which, in the case of young people and vulnerable people, can be joined the real dangers of safety. Besides, living on your phone, controlled by the algorithm, each person has their world, their reality. There is no contradiction. There is no way of knowing what is true and what's a lie. Utopia gives way to dystopia. This vulnerability has been exploited by political regimes and ideological campaigns.

There has always been marketing and advertising, but social networks allow you to spread manipulative narratives with incredible speed, on a global scale. Of course, with a little regulation, network managers will be able to control the proliferation of false information and rumors, but misinformation generates interest and interaction in users and makes a profit.

If nothing is done to stop fake news, the dangers are enormous for democracy, for the environment, for the economy and for all people. The only solution will be that everyone disconnects from social networks forever. But of course, that is not going to happen. It is impossible to put the oxygen us back in the bottle. That is the dilemma. How to take advantage of the good that technology gives people without being completely manipulated? First tip: turn off notifications. Second, never follow the recommendations. Always choose and control the use. Search for other sources of information. Confirm the information before sharing something. Stimulate critical sense. Have other sources of pleasure. Enjoy the wonders of the world without using a screen.

ix. The Implications of Social Well-being

Economic models and type of goods

The goods of social networks are not destroyed in the act of consumption. The externality of demand characterizes the economy of networks. The usefulness of each user's information depends on the total number of users, (Katz; Shapiro, 1985; Herscovici, 2013).

The digital economy is the economy of demand, as opposed to the supply economy, and its dynamics is based on the number of network users. The concept of social utility is one of the key elements of the dynamics of these markets. The value of the exchange, or the market value, is determined from this social utility, that is, from the value of social use. This simply means that the valuation in the different intermarket (the market value) depends on the prior creation of a certain value of social use.

The value is produced socially, but part of this value will be redistributed by the networks, through the modalities of access to the stock of the stored data. On the other hand, it is an extension of the commercial logic for these new public spaces, to the extent that the stratagems of double sided markets consist of valuing, in the intermediate markets, the different components of this social utility.

The Social Welfare Function

What is the social impact linked to the development of the digital economy? Is it globally positive or negative? The Pareto criterion, used in neoclassical economics, is not satisfactory for the following reasons:

- Since it is an approach characterized by methodological individualism, it is impossible to consider utility as the product of inter-individual relationships.
- Analyses carried out on the Pareto criterion consider that the initial distribution of revenues is determined exogenously.
- In this type of approach, the utility value is limited, since it is conceived from an ordinal design, which does not allow the aggregation of individual values.

Depending on the limitations, social well-being depends on the level of available stock of the information stored and the degree of democratic openness of the user community. From an approach linked to philosophy, the degree of democratic openness implies the recognition of the autonomy of the citizen (defined by the private sphere), of the public space, in the sense defined by Habermas, of the political and legal sphere.

All the limitations of the democratic space, the whole mechanism that threatens this autonomy will have to be interpreted as a negative externality. *Fakenews and* the use of robots, hurt this autonomy, resemble rough forms of manipulation, and a decrease in the "quality" of information provided. These relationships indicate the negative or positive impact of each of these components about the level of stock available to the collective, or the degree of democratic openness.

Transaction costs represent, in their most general definition, the costs that companies have to bear in order to be able to operate in the market: costs related to the design, implementation and management of contracts (Williamson, 2002), as well as those linked to the implementation of an intellectual property system (Barzel, 1997). As the entire user community must bear these costs, they represent a decrease in well-being, i.e. a negative externality.

Interference is directly linked to the definition and limits of the disclosure of users' personal data by electronic platforms: how far does current legislation allow such data to be stored and disclosed by the companies that control these electronic networks, and what are the limits that these companies must respect? In this regard, in most cases, national laws are not respected, as the recent data disclosure scandals by some companies (e.g. Cambridge Analytica, Facebook, etc.) show.

Interference can go beyond further, from the development of sophisticated algorithms, and become a generalized and exhaustive control system; this control can be both external and linked to a self-censorship mechanism. Interference can also influence political choices, as was the case of the election of Trump in the United States or Bolsonaro in Brazil. In this case, this mechanism translates into a limitation of individual freedom, and constitutes a negative externality. Interference can be a particularly efficient system for Big Data, but it allows:

- Reach specific audiences.
- Know the trajectories of users in advance.
- Certain audiences are the target of *fake news* that seems plausible to them. Generally, this type of stratagems is used for political purposes.

With regard to *fake news*, we can talk about manipulation: it is not just about trying to impose a certain view of the world and reality from a rational argument, but of radically falsifying this reality, and of trying to impose this view as the only possible: the denialist theses defended by the neo-Nazi parties, which deny the existence of concentration camps, etc.

It is interesting to observe the way the public space has changed (Habermas, 1978). In the eighteenth century, the public space was a democratic space of discussion in which citizens had the same rights, regardless of their economic condition. Its function was to protect the citizen from the arbitrary power of the State. Today, the nature and function of the public space represented by social networks is transforming deeply. There is a loss of autonomy in relation to economic power, there is a strong interdependence between political and symbolic power, and economic power. Due to the very characteristics of the digital economy, symbolic power has become indispensable to ensure economic power, from the creation of social utility; but this symbolic and political

power has become increasingly dependent on economic power. This movement translates a loss of autonomy of the public space, in its political and symbolic dimensions, in relation to economic power.

The information disclosed on social networks influences the political decisions of users, social networks are used to guide the vote. The autonomy of the new public space, in relation to the political one, is relative and partial. We must also recall the problems linked to tax evasion. Electronic platforms operate in the global market. The ploy is to use the agencies in tax havens and thus escape the national tax rules, benefiting from those in force in tax havens.

The political dimension is related to the concept of interference and has implications in terms of social well-being. Faced with the expansion of mercantilist logic, with the intensification of the different modalities of interference, the political sphere is progressively losing its autonomy in relation to the economic sphere; this underscores the fragility of democratic processes in today's capitalism, and its growing inability to maintain the conditions conducive to maintaining the democratic game. A restriction of democratic spaces must be regarded as a negative externality. These observations lead us to question the nature of the social bond built in the digital age: in addition to the fact that it presents itself as a social manifestation of individualism and subjectivity, in the context of an increase and decentralization of accessible information, it is the product of opacity that characterizes the whole system of intrinsically asymmetric and fully merchandized relationships.

x. The Right to Privacy

Privacy is the subjective feeling of human beings about their personal space that is dimensional – territorial, physical, mental or psychological and should be considered a mechanism developed, throughout life in the context of social interaction and coexistence with other human beings. In this way, if we consider that all cultures have their particularities and differences, in particular, in the communication processes obtained by education and socialization, also privacy, the way it is understood by each person and collectively varies according to time and cultures.

In the individualistic view of the State, privacy is taken as a reserved area of the individual without any ethical or solidary requirement in its exercise, therefore a privacy with a selfish and antisocial accent; on the other hand, privacy in the European matrix occupies a high place in human rights, coexisting with several others of the same nature, such as, the rights to the inviolability of the domicile, the secrecy of correspondence, to the image, unfolding in various restrictions and prohibitions, being therefore a fundamental defensive right.

Privacy can be understood as the ability or ability that any human being has to manage his physical and mental space of well-being, in a balance between what he wants to expose of himself (his identity) and the invasion of what he does not want. The feeling of privacy is somehow linked to the feelings of comfort and trust, which you have in relation to others, and it is in these two measures that the management of the same is made, on a basis of choosing the permanence or absence of these same people, as Friedrich Nietzsche tells us: The solitude has nothing to do with the presence, or absence, of people. [...] In fact, I'm not going to I hate those who steal my loneliness, without in return offering me truly company." Yalom, (2015). (

Certainly, privacy go hand in hand with values, such as, the reservation of the intimacy of private life, in any domain, be it the intimate and personal sphere (family, affective and sexual life, health status, religious and political beliefs). At present, the privacy of individuals/citizens and organizations as a consequence, given that they hold "private" information from these same citizens, is a very present concern of democratic states, particularly public authorities, to be able to manage this information, for specific purposes, namely for the construction of public policies, and at the same time to protect the protection of people's privacy.

Indeed, because in the last sixty years new mechanisms and communication and information technologies (ICT's) have been developed, in particular wireless technologies (computers, mobile phones) with internet access, new forms of interaction without constraints of space and time, various forms of exposure of individuals and information sharing, however, in view of this greater exposure has been provided to men, organizations and States, the territory of privacy has become more vulnerable.

In other words, this amplification of communication, exposed by the Internet promoted new forms of freedom, with emphasis on the freedom of expression of individuals, but likewise, has raised many risks in the exercise of the right to privacy, which in its traditional form is broad and vague, when it is addressed to ICT's and this territory that is nobody's (network), opens up a new range of questions about these two fundamental rights, namely what is privacy on the Internet? what is its nature and limits? How is privacy protected in this exhibition area, how to minimize the damage caused by new forms of crime (*cybercrime*), how to protect information? How is the right to privacy of citizens guaranteed by the full exercise of their freedom of expression? And how should users act in this digital world, in which their private sphere is more diverse?

The right to privacy can be divided into several subgroups, pursuant to Article 17 of the ICCPR, that is, the right to privacy, identity, integrity, intimacy, autonomy, communication, and sexuality.

- **Privacy** - The right to privacy, as defined in Article 12 of the UDHR, protects the field of individual existence with respect to the sphere of privacy of others. It can also be understood as the element that does not fall into any of the following categories.

- **Identity** - Identity includes personal 'characteristics', such as name, appearance, clothing, hair, gender, genetic code, as well as religious confession or belief of each.
- **Integrity** - Personal integrity is protected by Art. 17 of the ICCPR. It means that, for example, medical treatment without consent or even against the patient's will should be considered as an infringement of the right to privacy.
- **Intimacy** - Intimacy is first and foremost ensured by the protection of home and correspondence, as well as through data protection. A person is protected against the publication, without prior consent, of his/her personal data.
- **Autonomy** - Contemplates the area of personal achievement of human beings. It is the right to your own body that also gives you the right to act against your own body, including the right to commit suicide.
- **Communication** - Covers interaction with others and confers, in addition to the special protection of the family, a right to develop relationships with other people.
- **Sexuality** - Sexual autonomy is a special and particularly important part of the right to privacy.
Any regulation of sexual behavior constitutes an interference with the right to privacy. Interference, if necessary, is only permitted to protect those affected (e.g. children). (Source: Manfred Nowak. 2005. CCPR Commentary, art. 17 CCPR.)
- **Especially Vulnerable Groups**
 - **People with disabilities** - **People with disabilities who need special care and help are often likely** to suffer interference with their rights to privacy, for example if they are in closed facilities.
 - **People affected by diseases and the elderly** - People affected by illnesses or the elderly living in hospitals, clinics or homes face a particular risk of affecting their right to privacy.
 - **Children** - About new media, children are likely to suffer violations of their privacy rights if they reveal personal information on social networks or on the internet.

xi. Privacy in Digital Environments

In digital environments, private data is provided to a system that records and stores the data. The data provider will have little or no control over, how, and for how long, the recorded and stored data will be used, leading to the asymmetries of the information flows. In many cases, the data provider is obliged to agree to assign the data, otherwise it will not have access to the services offered. In this context, the violation of privacy derives, in most cases, from the asymmetric flow of information between the company that records and stores the data and the data provider, (Jiang; Hong, Hong, Landay, 2002).

This issue is compounded as there is increased data flows, system speed, and low data maintenance costs over time. Many companies design and employ their own regulatory policies with regard to the use and privacy of their users/customers data, and make public those policies to detail how the data is recorded and stored and what their use will be before they are required by law.

However, data is often recorded and stored before users have access to privacy policies or have the means to follow up, if companies comply with what they promise in their control policies, data confidentiality. The dynamics of the Internet itself and the constant updates of computer programs expose the system to risks that compromise privacy (Pollach, 2007, p. 188).

The streams of data recorded and stored on the Internet brings many benefits to consumers and citizens, but also increases the risk of abuse through discrimination, manipulation and/or cybercrime. Digital privacy laws should provide users with control and co-ownership of their data, as well as facilitate their deletion when claimed. Although it has advanced in regulating the right to forget over digital networks, in practice, the lack of supervision allows companies to carry out manipulations, with the data of their users, which have not been previously agreed, such as, the sale to third parties.

V. CONCLUSIONS AND CLUES TO NEW INVESTIGATIONS

It can be concluded that the digital economy and the development of social networks produce mixed, some positive and some negative externalities. Positive externalities are related to the expansion of the modalities of access to information, with the social and cultural diversification of the audiences reached, the different components of the offer, and the decentralized production of information. In this sense, it is possible to assimilate the digital economy to a logic of social inclusion. Nevertheless, exclusion will take other forms: depending on the asymmetries of information that are inherent in the functioning of these markets, there is a partial exclusion of consumers/users.

From a perspective linked to Political Sociology, it is also possible to speak of exclusion in relation to the modalities of access and understanding of a particular social and political reality. Fake *news represents* a brutal distortion of reality, the imposition of a narrow, unique, and exclusive worldview: it is a means of guiding the political choices of users/citizens, regardless of any rationality. The dual character of the Digital Economy is

emphasized, and the opacity inherent to its dynamics. This opacity is causally related to interference, in addition to the economic sphere, extends to private life, politics and legal structure.

It translates into lower efficiency and a higher cost of control systems. Common sense assimilates the strengthening of democracy to the expansion of access to information by members of the collective. The Digital Economy allows to refute, in part, this statement: the expansion of the modalities of access to information occurs in parallel with a "weakening" of democratic spaces. Moreover, it is necessary to question the pertinence, the "veracity", that is, the "quality" of *accessible information: fake news* and the use of robots constitute a form of manipulation, in the sense defined by Political Sociology, and directly threaten democratic processes. Does the Big Data of the Digital Economy represent a real, not virtual, real-life achievement of The Big **Brother** evoked by George Orwell?

The new digital platforms are new products of mediated routing and control instruments associated with the use of computers, being one of the uses the digital mediation of workplaces on the web. Radical social movements are trying to broaden the goal of their flags on the internet and social networks to advance the anti-capitalist flag. Network communications provide the tools that can be used in the fight for political change. Political change requires a break with the fantasies that bind us to communication capitalism, (Dean, 2005, p.71).

Capital is not built on the Internet, although it is used in the production and reproduction of a huge range of information-related businesses. The expansion of the accumulation of capital is achieved through neoliberal reforms supported by a postmodernist hegemony in culture, aesthetics, and behavioral practices. These two combines contradictorily in digital territory. The decommodification of the logic of the Internet requires the fenestration of alternatives, in favor of new forms of social relations with their own dynamics.

Second, Marx, those responsible for these transformations are the freely associated workers. The coordination of material and intellectual production by them is not only the desirable end of a movement directed to overcome the socio-metabolic system of capital, it becomes the mediation for new social relations, capable of operationalizing technology for emancipatory purposes, guided not by the expansion of capital, but by the development of human capacities.

The challenge will be to build another social and global digital project alternative to the capitalist system, as well as another way of using the digital network, appropriate to the new civilizational parameters collectively built, in addition to the paralyzing dynamics of digital social networks in capturing free time.

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