Digital Identities and Epistemic Injustices

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ABSTRACT

The rapid progress in the development of smart systems and digital technologies and its expansion to all the spheres of human life have had an impact on the preexisting inequalities that separate individuals and communities from each other. In this paper, I intend to examine some of the varieties of *testimonial* and *hermeneutical epistemic injustices* generated by the mass insertion of the new information and communication technologies (ICTs) concerning to the *digital identities*, not only individual but also social identities. The paradoxes or even the dilemmas triggered by this new cultural environment, that I will study through of the analysis of some emblematic cases, including positive and negative uses of those tools, reveal the asymmetry between the expansion of our competence as users and the violation or alienation of our individual and collective identities and autonomies. This reflection aims at understanding, in the end, that these ways of *digital epistemic injustice* stand on a deeper *epistemic gap:* between the improvements of the "intelligent designs" and our growing dependence on them, on the one hand, and the generalized incomprehension of what makes them possible, on the other hand. Neither the utopian visions nor the dystopian visions can fully capture how this new cultural environment challenges the human intelligence, revealing, at the same time, its extraordinary power and its extreme fragility.

> *Techonolgy is neither good nor bad, nor is it neutral*
> Melvin Krazberg (1985, p. 50)

1. The digital condition

The expansion of information and communication technologies (hereon: ICTs) has created a new cultural environment. The process that has taken place with high intensity during the last 30 years has been described as the *digital condition* "...because it gained its dominance as computer networks became established as the key infrastructure for virtually all aspects of life" (Stalder, 2018: Preface).

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This has implied the "massive immersion of our cognitive life in digital environments" (Origgi & Ciranna, 2017, p. 305). An increasing volume of the cultural products that we receive, produce and send are digitized or have been digitized: messages, images, videos, music, service portals, advertising, newspapers, books, radio and television shows, films, etc. The access and the reproduction of these materials are efficient: fast and inexpensive. *Artificial intelligence* is a key component in the devices that store and process widespread information, such as mobile phones, tablets, notebooks, etc. in tools like social and service networks, e-mail and instant messaging services, electronic bank operations and e-commerce, and in a wide variety of applications that control our appliances or our blood pressure. All of them, the technologies and devices that store, transmit and process the *digital information*, are ubiquitous examples of the immersion of the human life "in the science that has made machines intelligent" and, even more, examples of our immersion in a *cyberworld*, or at least, in a *cyberculture* (Floridi, 2016). The health services, finance, politics, jobs, security, that is, the social organization as a whole is more and more built on an increasing volume of digital data. On their part, as a global digital network, the Internet is the "site of a convergence of media technologies" (Poletti & Rak, 2014), as it makes available a wide variety of tools in a diversity of vehicles for users, which can be simultaneously used for very different purposes. All of that constitutes a new "cognitive ecology" (Smart et al., 2017). In its beginnings, the Internet was a network mainly used to *receive* information, but, with the 2.0 Web, it soon started to be increasingly used to *produce and share* information.[1] For many people, the impact of all of these phenomena in the human life, at individual and group level, grants the rank of a truly cultural "revolution".[2]

In the initial stages of this process, any person willing to rapidly obtain all type of information and diversify their sources of knowledge could interpret that the Internet would represent an immeasurable paradise (Daniels, 2009), with the sum of all the libraries with physical books and shelves, like the one Borges

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[1] Our interest is focused on the *digital technologies* used as tools to collect, process and transmit information and for the communication between people and social groups; thus, it only partially overlaps with the wider topic of *cognitive technologies*, that range from writing to the most sophisticated intelligent devices (cfr. Heersmink & Carter, 2017).

[2] According to Floridi (2016), the 4th. Revolution is precisely the one that succeeded the Copernican, Darwinian, and Freudian revolutions, each of them challenging the "human exceptionalism". The last revolution is attributed to A. Turing and, according to his characterization, refers not only to the qualitative but also the quantitative transformations produced on the transmission and the processing of information.

imagined, just like a paradise.[3] Like never before, the Internet came to exponentially expand our condition of "informivores creatures" (Dennett, 2017). However, such enthusiast vision stimulated by the omnipresence and the extraordinary speed of innovations in the ICTs, the growing accessibility of information, and the creation of interactive platforms that started to guide and organize individual and group lives was revealing itself as too naive. The utopian visions about the universe of libertarian possibilities that offered the mass use of new technologies[4] was followed by a time marked by the reflections of the opposite sign, the dystopian visions.[5] It is more frequent today for both positions to coexist in the same complex approach, as the approach suggested by Kranzberg, loaded with questions, dilemmas and blind spots (Cowles, 2014; Giraud, 2015; Russo, 2018; Stalder, 2018; Parry et al., 2019, among many others).

Considering that many of these technologies allow, fuel or require from their users to present different aspects of themselves and engage in different types of interactions with others, and that, when doing it, they diversify and reproduce their identities in new ways, such technologies have been called identity technologies (Poletti & Rak, 2014; also Floridi, 2011). It should be also noted that the same subjects can play very different roles on the Internet: they can be citizens, consumers, participants, gamers, lurkers, or stalkers. Nevertheless, the same people probably "...understand themselves to be individuals who are unique, have agency, and exhibit commonly understood forms of consciousness..." (Poletti & Rak, 2014, p. 4).

Now, even though in the last few years there has been an intense reflection about this new *digital condition* in the social, exact, and technological disciplines, a proportional and complementary philosophical effort is still pending. Among many other effects, it is of interest to understand how the mass interaction with these intelligent devices modifies the individual and social pre-digital identities, by emerging DI, which are direct and indirect effects of such interaction. More specifically, we are interested in understanding how these

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[3] Cfr. "Poem of the Gifts" (1960): "I have always imagined that Paradise will be a kind of library".
[4] A classic sample is the Negroponte (1995) book; a more recent expression can be found in Shirky (2010).
[5] Cfr. Dean (2010) claims that these tools generate unfulfilled permanent communicative illusions, "feedback loops", in service to a "communicative capitalism" inadvertently fueled by those same unfulfilled users. This diagnosis extends to the forms of digital "activism", characterized as a movement towards the political inaction: the "clicktivism" (see Giraud, 2015).

changes create new forms of injustice related to the *identity* and to the *autonomy*, not only with people but also with social groups, mainly with those who are in the most vulnerable conditions. In this paper, I will refer to some of the highlighted aspects of this type of phenomenon.

Some of the relevant questions related to this are the following, among others: Do we have fair access and similar skills to use and assess these new gnoseological, technological, communicative, and semiotic tools? Can the vast source of information that Internet offers, as well as the traffic and the "cognitive outsourcing" (Origgi & Ciranna, 2017, p. 305), which involves from the search to the assessing of information, be characterized in an "innocent" way? Does the mass access to the new technologies allow for the *offline* inequalities not to be transferred *online* or, on the contrary, it reproduces and multiply them? Does the habitual use of these technologies weaken or enhance human capacities and skills? Are the control capacity and the human responsibility diminished? Do these tools provide more powerful ways for cohesion, resistance, and social criticism than the classic "face-to-face" or "pencil and paper" resources? By the way, I will not try to answer these questions directly. My goal will be more modest: incorporating to the reflection of them some of the conceptual and theoretical tools that, even though they were not intended to have that purpose in mind, they can contribute to understanding the reconfiguration of personal and social identities and autonomies in digital environments. This, in turn, will allow us to assess the epistemic effects of those reconfigurations. Our reflection also has the meta-theoretical goal to support the proposal that this is one of the most challenging fields, but still insufficiently addressed, for several areas in the philosophical reflection, as it obliges to reformulate the classical anthropological, ethical, epistemic, etc. problems.

2. Intersectionality and epistemic injustice

Even though there is a profuse theoretical reflection that has already dealt with the risks, the paradoxes, and even the *digital dilemmas* (Parry et al., 2019), one of the main difficulties that should be overcome lies in "a huge conceptual deficit" (Floridi, 2016). The tools that were available to think the condition *offline* are foreseeably insufficient or inadequate for the new context. What is more, the increasing "confusion and fusion" among the *offline* and the *online* dimensions, the so-called *onlife* condition (Floridi, 2015; Russo, 2018), makes the precise delimitation between both of them unsuccessful, even when the

assumptions, conditions, and rules that prevail in each of them are often in conflict.

Although they have not been specifically thought for the phenomena that we are interested in here, some concepts as well as the approaches that underpin are especially enlightening. I am referring to the *intersectionality* (and the approach that it originates) and the *epistemic injustice,* in the two most well-known varieties: the *testimonial injustice* and the *hermeneutic injustice.* Many other theoretical frameworks and options are also relevant and will be useful for our work, but these notions play a more outstanding role for the exposition that follows; therefore, I will point which are their distinctive notes and their primary domain of application.

The notion of *intersectionality* refers to the interpenetration of factors, such as race, gender, sex, social class, ethnicity, nationality, capacity, and age, in the construction of personal and social identities. According to an *intersectional approach*, these factors do not operate as isolated features, but as interrelated phenomena, and they explain the formation of complex social injustices (Collins, 2017). This category is weighed against the idea that the liberation of different forms of inequality, violence or marginalization could only be achieved by erasing or removing those categories (see Crenshaw, 1991), given that they would be just epiphenomena not relevant to understand the structures and norms that explain the individual and social human behaviors. On the contrary, it is held that these phenomena are "intersected". The emergence of the intersectional approach was fueled by the "black feminist" movement, between the 1960s and the 1970s in the USA, in virtue of their claim about their need to understand how the racial, class and gender inequalities in "intersected identities" come together, against the approach that it was then called, in contrast, "white feminism" (cfr. Collins, 2015, 2017). For these groups, "the policy based on the identity has been a source of strength, community and intellectual development" (Crenshaw, 1991, p. 1242) instead of an obstacle to understand a phenomenon as male chauvinism.

Even though the notion and the approach that the notion promotes emerged from the limits between the social activisms and the academic communities (Cfr. Crenshaw, 1991), it was finally incorporated by the recent social-scientific investigations, being rapidly institutionalized during the first two decades of this century (Collins, 2015, 2017). From the beginning, it covers "a constellation of knowledge projects", that includes: a *field of study* of the most diverse social phenomena; an *analytical strategy* to focus those social phenomena with a focal

point on the relations of power and the injustices[6]; and a *critical praxis* in the hands of the social actors in pursuit of justice (Collins, 2015). In these three dimensions, the concept results fruitful to address the inequalities and injustices in the digital environments. The intersectional approach has been prolific to analyze the *identities*, understood as the intersection of several socio-demographic factors, and it could explain specific social experiences in the digital environment, for instance, in the use of social networks. To give an account of the specific inequality phenomena of this field, the complementary and well-known concept of the *digital divide* has also been useful, as it refers to the *gap* that separates people from groups, in virtue of the generation, regional, socio-economic, and "cultural capital" distances. In the interest of thinking these intersections, other notions inside the same conceptual family have been elaborated, such as *digital illiteracy, digital inclusion, digital poverty, digital oppression,* among many others that are already frequently used.

On their part, the issues related to the unfair treatment and the power relations regarding the communicative practices, in which the comprehension and the knowledge of the agents are involved, are known as *epistemic injustice* (Fricker, 2007). The notion refers to a topic that is in the interface between the social epistemology and the political, social, and moral philosophy (and which also involves a myriad of non-philosophical social disciplines). The concept refers to "a wrong done to someone specifically in their capacity as a knower" (Fricker, 2007, p. 1). Therefore, we should distinguish it from the limitations to the access to cognitive assets, which are a manifestation, among others, of distributive injustice; however, when they are combined, they widen the gaps that separate people or groups in a community. In that way, all type of treatment that disturbs, conditions, manipulates, weakens or ignores *people's capacities* in virtue of the conditions in which the communicative interactions are produced, involving knowledge and information, meanings and interpretations, is covered by the concept of *epistemic injustice.*

It is impossible not to pay attention, from any philosophical perspective mindful of the real epistemic practices of socially-situated subjects (and not limited to the conceptual elaborations "from the armchair") to the new forms of *epistemic injustice* that the information and knowledge society, with its paraphernalia of new technologies, exposes and, in some cases, as we will see,

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[6] Especially in this level, there is no consensus in the literature on intersectionality about whether it is about a methodology, a perspective, a type of analysis, or just a concept (Cfr. Collins, 2015).

reinforces, multiplies or creates. The liberatory epistemologies, like the feminist, trans and queer epistemologies, among other varieties, have long ago taken over, in some way, different dimensions of the problem of the *epistemic injustice*. Once it is accepted that it is not possible to address the epistemological problem without socially addressing it, incorporating an intersectional approach, being a "respectable epistemic agent" (Origgi & Ciranna, 2017) means being treated, in the first place, as a trustworthy informer in the context of the "social distribution of the cognitive labor". But, let us see what both varieties of *epistemic injustice* identified by Fricker consist of.

The so-called *testimonial injustice* is the one that is originated by the negative assessment carried out by some individuals on others concerning *the credibility of their testimonies*, generally based on stereotypes or prejudices (Origgi, 2012). In that way, the *systematical prejudices*, based on social class, race, religion, economic position, sex, etc., produce characteristic forms of testimonial injustice (for instance, "the police do not believe in you because you are black"). This is an "*identity-prejudicial credibility deficit*". By operating through prejudices, this type of injustice does not assume the conscious and deliberate manipulation of those assessments [7] . According to Fricker, the person who considers the capacities of another person by sub-estimating their testimony not only produces a social or moral, apart from epistemic, offense over the other, but also infringes an epistemic offense to himself/herself, in the sense that they prejudice themselves by adopting a prejudicial vision that deprives them from a potentially truthful testimony. This type of injustice affects the subjects as knowledge givers, causing them some sort of *direct discrimination*, which degrades or diminishes them (Fricker, 2017).

Regarding the *hermeneutic injustice*, it concerns the situation in which the interpretative resources shared with the members of "cognitively diminished" groups are affected by the prejudices that limit the understanding of their own social experience. This type of injustice is a situation that affects, in the end, the society as a whole. The *hermeneutic injustice* is important because "...the interpretative capacity to express oneself and to be understood are basic human capacities" (Medina, 2017, p. 41). This type of injustice can lead a group to the extreme of canceling out their voice, rejecting their expressive resources, and even their right to the language. As Fricker mentions, take as an example the

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[7] Many of them are implicit prejudices, and operate in the same automatic way as "implicit biases" (Fricker, 2016).

wrong appreciation that, until recently, we had about the conduct that we understand today under the concept of "sexual harassment", which was not considered as a harmful behavior over women and that, apart from their direct victims, it also affected the society as a whole. This is a kind of *hermeneutic injustice* because it diminishes or cancels out the capacity to *give* or *offer knowledge* and it involves the available conceptual repertories and the intelligibility of the very own voice as subjects of social understanding. This type of injustice produces a kind of *indirect discrimination* (Fricker, 2017). It is also about, like the previous one, a non-deliberate variety of epistemic injustice.

Therefore, while the *testimonial injustice* is caused by a prejudice over the credibility of an epistemic subject, the *hermeneutic injustice* is caused by a structural prejudice "…in the economy of the hermeneutic collective resources" (Fricker, 2007, p. 1). Even though both operate in a non-deliberate way, the individuals and the groups that produce them are neither innocent nor do they lack any responsibility. Several factors could explain its genesis and preservation, like bad faith, selfish or class interest, etc. (Fricker, 2017). Finally, both are related to each other: the persistent *testimonial injustice* tends to produce the *hermeneutic injustice.* Both of them relatively produce privileged and derogatory categories to the epistemic subjects (Collins, 2017). In the cases that we will consider, different aspects of the relation between the people and the ICTs negatively affect those persons in their epistemic capacities.

3. Digital identities and communicative affordances

I want to refer now to the emergence of *new public identities* in the digital environments, and to the access to and traffic of the personal and social information involved in them, to understand the *digital epistemic injustice.* I do not intend to offer a map of all their varieties. To make things more complex, we should also weigh some of the positive effects of the critical uses of the same tools. Expressed in simplistic terms, these effects reflect our simultaneous condition of *enthusiast users* and *defenseless victims* of the ICTs.

A profuse literature has taken care of proposing and elaborating the notions of a *digital person* (Clarke, 2014), *digital subject* (Goriunova, 2019), *subjectivity or digital self* (Giraud, 2015), *digital identity* (Reigeluth, 2014), *virtual self* (Yang et al., 2017) and other related ones, like *"to be online"*[8], *"the*

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[8] *Being Digital* (1995) is the title of the MIT media lab founder, Nicholas Negroponte.

online self", *"to have an online life"* (Poletti & Rak, 2014), or *"networked self"* (Papacharissi, 2011). They embrace a great variety of issues, many times overlapped, related to rights, norms, criteria, uses, etc., based on the phenomenon of mediation of the human condition due to the mass use of digital technologies. But, while some refer to the new "reality" created by them (more or less abstract and more or less dependent on the physical, body, or psychological identity of the people in which they are originated), others focus on the particular types of connection or interface that this one holds with the non-digital identities. I will confine to considering this second aspect. Besides, as we have mentioned, many authors agree on the fact that it is difficult to establish the boundary between a digital self and a non-digital self, and that we should rather think about "new ontologies" where the pre-existent boundaries are dissolved and the new ones flow in unstable ways (cfr. Ghezzi et al., 2014). On their part, the new concept has disrupted other concepts closely related to it, like, for instance, intimacy, privacy, reputation, anonymity, autonomy, citizenship, oppression, among others. Each one of them deserves a more specific reflection, but I will confine here to the more fundamental concepts of *identity* and *autonomy* (in the epistemic sense), and some of the others just for their connection with them.

   While the notion of a *person* refers, in a simplified form, to a type of entities or creatures, in contrast to the non-persons (vgr. machines, non-human animals), the *personal identity* refers, in turn, to the characteristics or properties that individually distinguish a person from another and/or those that allow us to keep us identical throughout time: a cluster of mental states, psychological continuity, singular biological or material condition, etc., are some of the dimensions involved in the personal identity (see Olson, 2019).[9] Another way of distinguishing these notions is by reserving for the notion of *person* the synchronic properties and for the notion of *personal identity* the diachronic ones (Heersmink, 2017). Now, even though it makes sense to extend and modify the notion of *personal identity* to end up with the case of the DI, this does not happen with the notion of *person.* Therefore, let us leave out the *persons*

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[9] There are also social identity traits, and therefore, not attributable only to an individual, e.g., race or gender. However, they are not usually taken into account by traditional philosophical views on personal identity.

from our direct analysis[10]. At the same time, even though the properties involved in the DI are originated in the features and acts of the *persons,* they possess an ontological status and some epistemic properties (and others) that differentiate them from the personal identities. Finally, we are not only referring to the individual identities, but also the identities of the social groups. The concepts of *technological sociality or networked sociality*, among others, have been coined to refer not only to the fact that the social relations between individuals and at a group level have been moved, at a large scale, from the *offline* space of the physical interaction to the *online* space, but also, in doing so, they have adopted new modalities and patterns of sociality (cfr. Papacharissi, 2011).

Admittedly, part of the difficulty to clarify the concept of *digital identity* comes from the attempt to transfer the pre-digital notions and conceptions of people and the identities to this new context. While the schools of thought that are more fond of the modern humanist tradition offer a clear resistance to think the *digital identity* as something more than just a playful or *soft* extension of the real *self,* others seem to prefigure these new scenarios (at least that seems to be the predominant suggestion in the literature about the topic)[11] or adapt better to them.[12]

Beyond the philosophical perspective preferred, it is not difficult to recognize that the interactions between people and the ICTs create new performances and new identities. As we know, many platforms actively give rise to the interaction between the users, turning them into a particular type of

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[10] The concept of a *digital* person, originally coined by Clarke in the 1990s, refers to "... a model of an individual's public personality based on data and maintained by transactions, and intended for use as a proxy for the individual" (2014, p. 184). According to the author, the concept should be thought with the meaning of its Latin version: *personae*, that is, it refers to the public character or role of someone, hence, it can be subsumed within the one of the *digital identity*.

[11] In this respect, the recurrent reference to the French post-structuralist tradition is notable, especially to the work of the first Foucault and Deleuze, as well as the Marxist and phenomenological (or post-phenomenological) tradition. From a different perspective, the recent conceptions of the "extended" and "distributed" mind and, more widely, the family of approaches embraced by the notion of "situated cognition" (cfr. Smart et al., 2017) seeks to give an account of a relational conception of the cognition and the self, coupled with and formed, in part, by some social and technological aspects of the environment (cfr. Smart, 2012; Heersmink, 2017). In this paper, I will not presuppose the adequacy or inadequacy of none of these conceptions, although some reflections are more in tune with these naturalist approaches.

[12] Heersmink (2017), however, tests a continuity line between the neo-Lockean conception of the personal identity based on the memory, the contemporary narrativism, and the digital narratives (vgr. lifelogging technologies) in the context of the conceptions of the extended mind.

affordances in Gibson's (1979) sense; this means, entities that can be defined by their perceived relational properties, related to their possible uses[13], by a certain type of users. In that way, mobile phones and their applications-oriented to communication, the YouTube platform, and the social networks are *social affordances*, more specifically, *communicative affordances* (cfr. Bucher & Helmond, 2018), because they are designed to favor a certain type of perceptions and interactions of the users with other users *using them*. In social networks, the interactions are centered on the identities, not only individuals but also of the groups with which those individuals seek to interact (Morrison, 2013). Facebook and LinkedIn, for instance, *invite* to share personal information, asking their users to create specific types of profiles or self-presentations, which are the first step to participate in these networks, and they also apply certain rules for the interaction with others (Poletti & Rak, 2014). Although the users usually perceive that their interactions are autonomous and self-controlled (Rogers, 2014), this "sociability" is constrained and expresses a form of power based on the "voluntary submission" (Sladter, 2018, p. 99). Then, we will see how this submission operates. The *communicative affordances* are such in virtue of certain distinctive properties, such as availability, transportability, replicability, editability, among others, that not only enable but also condition the communicative practices that are possible using them (cfr. Bucher & Helmond, 2018). In this sense, the digital ICTs are *means* that enable the communication, but under "non-innocent" conditions. We will see below some epistemic effects involved in these "possibilities for communication".

The notion of *epistemic injustice*, as we have said, was thought to give an account of the damage caused by some people over others. Nonetheless, as Origgi & Ciranna (2017) soundly remark, also the "[N]ew technologies may be a source of epistemic harm by depriving people of their credibility about *themselves*" (p. 303), being this type of damage even more neatly epistemic than the one caused by the bonds between people only. However, I think that we

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[13] All the ICT can be seen as *affordances*, as they have been designed to allow us to *do* with them a possible range of interactions (cfr. Poletti & Rak, 2014) Even though it could be thought that in virtue of this character of "possibilities", the opportunities of interaction of users are increased, they also address or encourage to produce and consume certain types of content, according to certain rules. In that sense, they *constrict* and *control* the action of the individuals concerning to them, a feature of the *affordances* that was also anticipated by Gibson. This "hidden" dimension, that, as we will see later on, is occupied by the algorithms, is suitable for characterizing the type of epistemic relation that it is produced between the ICTs and their users (cfr. Bucher & Helmond, 2018).

should distinguish the *digital epistemic injustices* on two different levels.[14] In an overt level, the ICTs can be an (extraordinary efficient) *means* for people to infringe and spread epistemic damages (nevertheless, sometimes, they can counter or even repair those injustices) (Giraud, 2015). But, in a covert level, in virtue of the logic and the design that rules its functioning, and, therefore, operating without the knowledge, consent, or control of the users, they can cause even deeper epistemic damages. By the way, both levels are presented as mutually superimposed. Also, while in the first case, they are injustices caused by the voluntary use of the ICTs, in the second one, they occur whenever ICTs are used. Let us see, then, how both types of epistemic damages are possible.

4. Overt and covert digital epistemic injustices

In this section, I will try to introduce some of the important aspects of the epistemic relation or interface between the personal and social, digital and non-digital, identities. Firstly, I will refer to the autobiographical narrative and the role of the biological and digital memory to identify the type of *testimonial injustice* involved. Secondly, I will refer to the occasional or regular use of the social networks on the part of social groups, to show certain characteristic type of *hermeneutic injustices* or reactions to them. In both cases, I will emphasize on the ICTs as *a means* through which the epistemic damages are produced, aggravated, or mitigated. Finally, I will refer to the covert digital epistemic injustice exercised by the automatic systems that govern the platforms and applications, and which affect, in different ways, the epistemic authority of the users.

4.1 Autobiography and memory in the digital condition

The autobiographical narrative practice is, in fact, the main purpose of many *online* activities, especially in blogs and social networks. There, the users carry out exercises of self-representational textual production as an essential part of their commitment as users. Now, these differ from the traditional autobiographical genre. According to the narrative approach, the *personal identity* has the consistency of a sequence of narratives that is more or less coherent and structured, guided by an interpretation, with which the persons represent themselves or accept to be represented by others (Dennett, 1992).

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[14] At this point, our analysis differs from the one offered by Origgi & Ciranna (2017).

Leaving aside the question of whether or not narrativism is an adequate conception about *personal identity*, it is difficult to deny that the narratives constitute an important element of it. The people resort to them to identify themselves before themselves and the others. Now, the *self-representation* in the networks consists in specific historical, discontinued and disperse, occasional and fragmented experiences, this means, non-obliged records by no superior thread of sense. Therefore, it is difficult for them to make up a narrative in the well-known sense (Poletti & Rak, 2014, p. 7 y ss.). The virtual identities are in permanent construction, they emerge during the communication processes themselves; therefore, they are something *that is being done* and that is never possessed (Micalizzi, 2014). On their part, they are made not only by verbal but multimodal means (drawings, videos, photos and audios)[15], that is, a varied "expressive equipment" (Papacharissi, 2011). The language of the digital biographies is halfway between orality and writing or, as it has been said, is *spoken-written* (see Micalizzi, 2014), a hybrid that combines writing with the features of the face-to-face oral communication and its evanescent character. This follows the expressive needs characteristic of the production of *interactive* and *fragmented narratives* (Micalizzi, 2014), but this can be due to, also, as we will see shortly, specific communicative-social needs. Possibly, the most precise way of characterizing these forms of self-representation of the self in digital media should be done under the concept of a *fluid abstraction*, the product of the association of the individual with a social, cultural, political, etc. environment, that is varied and flexible, in a cycle of perpetual changes, adjustments, discoveries, etc. (Papacharissi, 2011). In that way, while *the identities* in the digital media are *multiplied*, they become, at the same time, increasingly *precarious*. Let us take as an extreme and kind of "monstrous" example the creation of famous people in the networks that are taken as "role models". An outgrowth, the result of a process of alienation of the identity (and

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[15] We should make a special comment on the profuse circulation and availability of images of faces in the digital communication era. The faces are powerful "organs of social communication", due to the rich information that people obtain from the visual perception of facial information, identity included. The "face-to-face" interactions settle in this acute capacity for facial recognition. Now, the interaction with face images on the Internet has particular characteristics. Think about the dissemination of selfies (Leone, 2018). It is interesting to think that the proliferation of faces that are disembodied and oriented to themselves takes place while the refining of the algorithms and the *deep learning* allows recognize them even better, to redirect the information and control the traffic. Another paradox.

of other marketing knowledge and market rules), is the case of the "social media influencers", which we can find a very diversified typology.[16]

The volume of information accumulated in the external *digital memories*, the low cost of its collection, the most efficient recuperation and distribution and its global scope are phenomena that have no precedence compared to the modalities of information gathering of the pre-digital era (Mayer-Schönberger, 2011). The e-memory and the cloud of the data services that "…allow us to record, store and access to an ever-expanding range of information both about and of relevance about our lives" (Clowes, 2014) have an impact over our *biological memory* in particular, and, more extensively, over our cognitive and meta-cognitive life (Floridi, 2011; Heersmink, 2017). While they are useful to create, support, or complement some mental function, these "cloud-enabled cognitive technologies" (or "Cloud Tech") provide permanent access to the personal data stored in their memories. In this new context, the *biological memory*, in particular, the one referred to our very own personal lives, is now linked to and is even more dependent on a new "electronic" memory uploaded in the cloud. Both of them constitute a hybrid cognitive system or, at least, "extend" our cognitive system in exponentially unsuspected ways.

In *Delete: The virtue of forgetting in the digital age* (2009), Mayer-Schönberger remarks, however, that if in the pre-digital era forgetting was easier and less expensive than remembering, this balance has been inverted in the *e-memory* or "perfect memory" era: "Digitization has made possible plummeting storage costs, easy information retrieval, as well as global access to digital memory. For the first time in human history, this has enabled us to make remembering cheaper and easier than forgetting…" (ch. VII). Now, on the contrary, we can all be "victims of the digital memory" in several aspects. For instance, because it limits or impedes us to keep distance from the past errors and it inhibits or conditions the possibility to select, abstract, and generalize our memories. As Floridi (2011) holds, "(T)he more memories we accumulate and externalize, the more narrative constraints we provide for the construction and development of personal identities. Increasing our memories means decreasing

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[16] "Celebrities", "bloggers", "youtubers" and "micro-influencers" of all kinds are people that exploit their reputation *online*, based on the credibility, the position, the authority or the attractive (or a mix of them) to influence their niche of followers. To add to the confusion, some of them express a spin from "top-down manufactured" celebrity to "a hyper-democratic" celebrity (see Nakamura, 2014).

the degree of freedom we might enjoy in defining ourselves" (p. 562).[17] All of this depends on, in part, the capacity of forgetting, and this one, at the same time, depends on the possibility of "being forgotten". Even this one has been conceived as a right, because it deeply affects the personal identity. The "right to be forgotten" is the right of people to be erased from their personal data available on the Web whenever they want or after a certain period (see Ghezzi et al., 2014). There are clear damages that can be caused to a person with negative or false information persistently crystallized on the Web (Rogers, 2014).

On their part, the DI are built over the excessive documentation generated, stored, and circulated by the devices of data logging. In this respect, they also dramatically contrast with the volume of personal files that we could store in the pre-digital era, such as photographing marks in paper, personal diaries, or emotionally significant "evocative objects" about a few scraps of our past lives. As it is well-known, our memories about our past, when liberated from the documentary record, are relatively forged, imprecise, or exaggerated products, built, in part, by our posterior selves. While these require a task of sequential and contextualized ordering and recuperation that enables their intelligibility, that is, the elaboration of a narrative[18], the digital information, in turn, is neat and categorized by abstract and decontextualized mechanisms.

About this aspect of the digital record, Eichhorn (2019) analyzes the impact that it will have on the new generations having grown up surrounded by selfies, picture posts, and videos that spread personal images throughout the networks. Before, we would just need a manual operation to delete an unpleasant or embarrassing photographic record. This is increasingly impossible in the digital era; as a consequence, the task of forgetting them will be at risk. It is not only about individual memories. Tragedies, such as the World War II, the ethnic and political conflicts in Eastern Europe, or the religious persecutions or wars in the Middle East, among many others, obliged their survivors to live without a past. Those who then tried to recover the remains of their own family or group members had to cope with this task with extraordinary efforts, not accessible

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[17] This, at the same time, has an impact on the *privacy*, the *autonomy*, the *reputation*, etc., to a larger extent when it is about vulnerable groups, for instance, young people and children (Marwick & boyd, 2018).

[18] Let us remember that, according to the Lockean conception, the memory used to be the constitutive feature or the criteria of the persistence of the *personal identity* throughout time. The autobiographical narrative that reflects such temporal thread or its diachronic nature is, in that sense, heiress of the modern concept of the self (Heersmink, 2017).

for everyone. Eichhorn guesses that the emergency of memory studies in the social sciences and humanities could have been motivated by this absence of records and by the repression of the memory that followed to World War II. Then, the idea that "forgetting is memory´s foe" (p. 14) or that "memory is a struggle against forgetting" (p. 14) became meaningful.

Now, besides the different cognitive functions of the forgetting and the memory, the point that Eichhorn mentions is that the suppression of the memory, not only by the action of tragedies, but also by the resources of the survivors put at the service of their psychological preservation after they took place, demonstrates that the *task of forgetting* during the pre-digital era was still possible. On the contrary, the current tragedies can be registered in real-time with mobile phones and are spread, also in real-time, through the social networks. It is worth asking oneself: will these new conditions alter the individual and collective identities by altering their link with the past and the future? Would the over-documentation at a large scale of our individual and social lives encourage an unhealthy compulsion towards repetition, instead of favoring the exercise of the memory? Which forms does the personal memory adopt in this *static narrative* that *perpetuates* the present and *alienates* the record of the past?[19] The DI, constituted to a large extent by the voluntary intervention of the users through self-presentations like the ones described, once they are alienated in digital memories that perpetuate them, not only undermine the very own personal narratives and compromise the personal autonomy with regards to the redesign of the very own past and future identity. Also the credibility of the testimonies in the first person is put under a situation of epistemic fragility. In difficult cases, who will have more epistemic authority over our past acts, ourselves, or the disperse but eternal digital records of ourselves in the cloud?

4.2 Social networks, social identities and *online* activism

Now, let's analyze the role of networks in relationship with the identities of the social groups (racial, gender, and others). Facebook, Instagram, LinkedIn,

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[19] This is not the only worrying epistemic issue regarding the influence of the external digital memories: from a cognitive point of view, the external "total recall" could reduce the efforts of active learning and the capacities of the processing, or the biological memory (Heersmink, 2017). An example of that is the cognitive impact (not only on the memory) of the regular use of the GPS for spatial navigation (cfr. Gillett & Heersmink, 2019). These effects point to long-term damages to our epistemic autonomy.

Twitter, Snapchat are some of the most popular networks in the world. In 2017, there was an estimate that more than 3 billion people around the world, almost 40% of the world population, participated in any of them. Twitter, born in 2006, is the network that concentrates the biggest amount of users around the world: 328 million, active monthly, and 500 million tweets per day (Aslam, 2017)[20]. Apart from providing a space for new ways of social interaction, the Social Web is used as a privileged tool by *activists and social movements*, to recruit, organize and mobilize protests, and claims (Parry et al., 2019). The resources that the networks offer to socio-cultural activism are enormously powerful. There are endless examples of the networks' usage that allow us to examine their effects, both positive and negative, in relationship with *identities* and *autonomies*.

Let's briefly consider *cyber racism* and *cyberfeminism* as terms that belong to the use of networks with an opposite sign in relationship with the unfair treatment based on prejudice and discrimination. The racial link (and racism) and women's link or gender (and feminism) with the digital world take place since the origin of the Internet. Regarding the former, the reflection about the different possible strategies of the usage of the digital media to struggle interracial differences included since anonymity, through the explicit racial identity, even "transmutation" (the adoption of multiple racial identities) (cfr. Nakamura, 2014). Since then, there has been a long debate: Is the Internet a space for post-racial interaction? Does the virtual media allow the avoidance or escape from the body and its identity issues? Do the injustices based on racial discrimination only take place and must be repaired in the "outernet"? The initial utopian expectations' erosion (called "abolitionism online") has fed, as we have observed, the emergence of intersectional approaches. A reaction to any of the battle strategies against racism, has been *cyber racism*, a movement in favor of the white supremacy promoted by the global scales through web sites, in Europe and North America (cfr. Daniels, 2009). This is a case of transnational activism and the clear expression of overt epistemic injustice (but is it deliberate or prejudiced?). The movement looks for, through the creation of homogeneous racial niches, unified in terms of the rejection to identify the hermeneutic authority of the other ethnic groups, erode explicitly the rights, institutions, and social norms that devote the respect to racial identities.

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[20] The volume of the population that participates in social networks should not minimize the persistence of inequalities related with digital citizenship, that includes not only digital literacy but also other specific skills and regular access to these technologies (Mossberger, 2009). It should not be taken for granted the democratizing effect of its use (see Papacharissi, 2008).

Anyways, the damaging effects of these types of digital niches go beyond the epistemic sphere.

On the one hand, *cyberfeminism* is the manifestation of the impact of the massive use of new technologies in the thinking of the third generation of feminisms. The first feminisms had rejected these technologies, since they were considered to express the intrinsically masculine and oppressive monopoly of the techno-science and Artificial Intelligence. Later, they tried to politicize those areas, using them to fight battles against inequalities[21]. The movement lost the original enthusiasm and it was questioned for its contempt as regards the worrying phenomena, such as harassment and cybercrime, and for its white elitist approach. After the first decade of this century, it also merged with the intersectional perspectives and changed towards new configurations, called black feminism (Collins, 2017) and its expression on the web as *Digital Black Feminism* (cfr. Love, 2019).

It is clear that digital social activism takes place more often than not in the "loose-tie networks", networks that allow a more flexible participation of its members, and also in organizations joint in *permanent campaigns* (Bennett & Toft, 2008). Besides, the eventual use of social networks has shown the huge power when producing "micro-counternarratives" in relationship with the prejudices and social stereotypes (Morrison, 2019). To illustrate this eventual usage, that has several interesting sides for our topic, there was a campaign on Twitter with the hashtag, #Distractinglysexy, in 2015. The campaign took place as the answer to the public statements of Sir Tim Hunt, Laboratory Head and English Nobel Prize: "Let me tell you about my trouble with girls. Three things happen when they are in the lab: you fall in love with them, they fall in love with you, and when you criticize them, they cry." Considering the background of prejudices and stereotypes very well-known towards women, Hunt's public statements were equivalent to the exercise of a persistent way to *testimonial injustice* and *hermeneutic*, not only towards a particular group of women, his colleagues in the laboratory, but also, as for generic rule, towards all the female scientists[22]. On the other hand, the campaign, through the social network with ironic humor condensed in the hashtag and the sexy scientists' pictures, helped to highlight the inequality sensibility (genuine and forced) of the different actors, regarding women's ability to contribute to the scientific knowledge,

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[21] One of the early mentors was Donna Haraway with her "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century" (1985).

[22] To analyze all the ingredients of the episode, see the work carried out by Morrison (2019).

instead of disturbing it. The deficit of the attribution in the credibility and women's cognitive tools, was also confirmed by the presupposition of the innocence or naivety about men: Hunt, according to the male colleagues that protected him publicly, had only made an "innocent joke". The same occurred with the counter presupposition: the irrationality and emotional instability about the woman, who instead, had reacted "instinctively" and with unreasonable "fanaticism", also according to the same actors. The adjectives that scientists women received from their colleagues that protected Hunt are "self- interpreted", to name it (cfr. Morrison, 2019).

To conclude, I am going to refer briefly to the network's phenomena known as *Black Twitter*. Several statistics show that the widest use of social networks and, especially on Twitter, is done by the Afro-American community in the USA, in comparison with the white population. The first records related to *Black Twitter* are from the year 2008. This name comes from the Afro-American users very active in the network, that interchange comments and create *blacktags* (instead of hashtags[23]) about topics of their own cultural and ethnic group. Thus, it is the same Twitter network that hosts an active sub-community of users identified with the Afro-American, what is more, that got hold of its tools to adapt them to their objectives (Williams, 2017). The intense interaction of its users comprises a wide variety of topics, from the very shallow to the deeper ones politically and ideologically, such as campaigns against the racist attitudes of public leading figures or manifestations against indefensive young blacks. Being the racial identity a relevant social category for the personal and social life, a way to avoid their exclusion through its intangibility is to manifest it in the communicative interaction in the net. In this way, the expressive resources (vgr. the young afro American *slang*) and the oral communication interaction styles, very appreciated in the black culture, should be transferable to the textual formats and the narrow limits (140 letters at the beginning, then extended to 280 characters) specific in this social network. The oral interaction style among the Afro-American has been called *signifyn'*. It refers to the different oral

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[23] In the own syntax of Twitter this anglicism (made up of "hash", pad and "tag", label), followed by the symbol # and words together in one word, refers to the tagging or conceptual categorization that is used to create a communication channel linking interventions and messages ("tweets") with the same topic. Hashtags make possible the type of conversation typical of a social network, allow access, and help disambiguation of content in brief messages that are allowed, grouping those who share the same interests. Thus, hashtags frame information, elicit or activate its recovery: the # identifies the topic, @ let us know the user, and retweeting stimulates interaction.

communication traditions used by the Afro-American slaves, then taken to North America and based on the shared experience and knowledge only by the members of the community, which allowed to strengthen the bonds of belonging and solidarity to the group, its preservation and resistance (Gates 1988). 'The core of *signifyn'* is in the interaction, the messages have at the same time multiple meanings and the connotative and expressive aspects are heavier than the denotative ones. These aspects transfer to the textual format of the network, using a variety of expressive formats in an *oral-written language* with phonetic and spelling modifications of written words to include them into the spoken language and 'gestures' shown using asterisks, dashes or other symbols that function as emoticons. In this way, only the ones that belong to the Afro-American community can actively take part. In sum, *Black Twitter* would be another manifestation of the *signifyn'* phenomenon (Florini, 2014). This allows its users: to signal (index) their own racial identity and avoid the marginalization; strengthening their hermeneutic autonomy by including their distinctive old oral communication and cultural ways, either to share their lifestyles and cultural preferences, to social critique or the political actions against racial injustices[24]. In this way, *Black Twitter* can be seen as an expression of resistance against the *hermeneutic injustice*, strengthened by the appropriation of an intersectional approach, more specifically as a *critical praxis*, in the sense viewed by Collins (2015).

The different uses of the exemplified networks in the mentioned cases have paved the way to contradictory positions: either they are dangerous intrinsic tools, in the sense that they are a privilege means to amplify or generate new injustices, or, on the contrary, they are highly democratizing and like no other (Daniel 2009). As long as they are presented as mutually excluding, each one minimizes the cases which contradict them. Besides, both pay attention to the overt manifestations of injustice or epistemic injustice[25]. Let us see the covert cases.

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[24] For example, breaking the stereotyped barrier that associates the black community with ignorance and lack of talent and intellectual interests as in the campaign #BlackNerdsUnite, or rebelling towards racial violence, disseminating pictures and videos of incidents like those of the death of Michael Brown, to provide unequivocal support to the assertions of hashtag #BlackLivesMatter (cfr. Parry et al., 2019).

[25] In this context, I name *epistemic justice* to the digital expressions that promote, or reflect directly or indirectly, the recognition of the same epistemic capacities, in principle to all people and social groups.

4.3 Algorithms, filter bubbles and covert epistemic injustices

What do we refer to with covert epistemic injustice? In the digital environment, every transaction, request, or website visit can be tracked, recorded and stored, and ultimately searched and mined (Rogers, 2014). The *digital footprints* left when we make use of the platforms, that is, clicks, searches, favorites, pictures, and posts generate an enormous amount of data that are then processed by algorithms. In this way, the bigger the compromise we take with the use of these technologies, the more we allow being "categorized, grouped and reduced to discrete variables stored in the database" (Parry et al. 2019, p.7). But not all that data is willingly given by the users, but are generated in ways that are ignored by them, through algorithms that collect them, group and use them for purposes that have not consented. Think about the use of *cookies*, small pieces of data, or text files that web sites store on the user's computer to personalize the site. Some can be used to track the user through multiple web sites (tracking cookies), detecting his searching habits. That allows offering advertisements for a product that the user has recently viewed on a different site. The insufficient legal safe-keepings and/or the users' lack of awareness of the consent for the use of cookies are well known. Google, Facebook, and Twitter are specialized in the statistical and algorithmic handling of users' data. The same happens with the computer cloud, which allows not only the data but also the programs to be *online*, for which, in principle, can be available for its use without the user's control. In sum, "our data enters into the digital stream as a byproduct of our participation in contemporary life. We live in a data-by-circumstance world and so we simply hold our breath, hoping that the companies we trust with our data will not undermine us" (Marwick & boyd, 2018, p.1159). In this context, the boundaries between freedom and coercion, and between privacy and surveillance are very difficult to establish. This situation worsens when we deal with groups or individuals in vulnerable circumstances.

Finally, the algorithms work on all the digital data produced, on *Big Data*,[26] the everyday updated information about the entities, users' different platform

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[26] *Big data* is the collection of digitized information, including personal information, in a large database, and its analytical techniques for its use. No person can understand the amount of stored information: only the algorithms, that is, automatized systems for data analysis, can process that information and predict global tendencies, patterns, and correlations, e.g., about the human behavior. The storage of all produced information, even before the possible determination of its

preferences, among them. Thus, they build a "statistics Doppelgänger" (Origgi & Ciranna, 2017), which allows them to predict and manipulate their future actions. For example, these groupings allow the social networks (and other platforms) to keep the ones that think alike us near, and far from those who think different, not only consolidating group bonds, which could be interpreted as a desired effect for them, but also segmenting, segregating, and marginalizing the communities. Different sites and services in the web use the so-called 'filter bubbles' (Parisier, 2011), which select based on the worked predictions of the different variables (more than 50 in the case of Google, such as the searching history, personal information, the visits, etc.), which are the contents related to the prejudices, ideas and interests of the users' (following the rule: "If you like this, you will like that"). Youtube and the social networks Facebook and Twitter make use of these filters. The Google personalized "search engines" work in a similar way. In this way, the filters provide a "personal information ecosystem" which isolates the users in "ideologic bubbles", generating a fake homogeneous effect as they avoid potentially troublesome encounters with audiences that have other preferences and opinions. It is easy to see that one of the consequences of the operation of these filters is that the users consolidate their own biases. On the contrary, it could be thought that they facilitate surfing, making the contents accessible regarding their relevance to the users, and in such cases have a negative effect, limited or reversible because of their own decisions (eg. deactivating the personalized searching engines). It is obvious that in the majority of the cases, the filters "decide" for the users which other contents will result automatically invisible unless they are especially aware and know how to deactivate them.

In a way not realized by the users, and in a more objectionable manner than other information filters, the algorithms use the *categories* that allow to segregate (and oppress) people: race or ethnicity, sex or gender, money, or socioeconomic status, combined with other means of discrimination. This is the

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future utilization, generates a potential for the surveillance. This is the so-called *dataveillance*: the systematic control of people and social groups through of the data systems to regulate and control their behavior (Clarke, 2014). If the relative importance of the large multinational internet companies is taken into account, like Google and Facebook, to copy and process the data, the monumental disruption of the personal and individual autonomies could be understood. In this way, the *Big Data Surveillance* is the digital replacement of the Benthamian model of the panoptic: the promise is that technology is going "to track everything about everyone at all times" (Andrejevic & Gates, 2014, p. 190). This is the largest scale in which the notion of *epistemic injustice* should be thought.

so-called "technological red line" because the discrimination is embedded in the programs codes and the technologies. With the expression "algorithmic oppression", Noble (2018) refers to the digital decisions that the algorithms take for the people, causing discriminatory social effects. Such manifestation is the "commercial co-optation of the black entities" on the part of Google, one of the most powerful technology companies in the area, when they classify and organize the information to enforce oppression of these vulnerable groups. This categorization puts in evidence the "intersection" of *racism* and *sexism* but in this case due to the "power of algorithms". The cause that triggered Noble's investigation was a search in Google with the words "black girls": the reiterative search results, between 2010 and 2012, always directed to sites of sexual content. In 2012 Google would update its searching algorithm, and in this manner would not show pornographic results in the first place. Nevertheless, the search for "Asian girls" and "Latin girls" continue showing those results[27]. Ironically expressed, it could be said that the algorithms use an intersectional approach, but only to discriminate more effectively. It is made evident that the use of these services as primary and trustworthy sources of information, that is, as *neutral epistemic technologies*, should be drastically reviewed.

Now, we can see that '[A]s we continually give up our (personal information) data in exchange for the use of these technologies, we must engage with the *dilemmas of simultaneously being the user and the product...*" (Parry et al., 2019, p. 7) (I underline). The enormous asymmetry in the epistemic power between the algorithms and the users, which is added to the already existing between people and the communities, without having the power to reverse it, alienating, even more, our epistemic capacities, as much as the testimonial as the hermeneutic.

5. Post-intelligent design? Competence without comprehension

The forms of *epistemic injustice* fed by the digital condition pervasiveness, some of which have been identified in this work, manifest a way of epistemic dependence which is deeper than those, because it affects us as intelligent creatures. The philosopher Daniel Dennett (2017) has characterized our time as *the age of the post-intelligent design*. Human cultural history can be described, according to Dennett, as the *intelligent design* history, the invention

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[27] Many other searches in Google, in different languages, throws similar results.

of material and non-material artifacts that have allowed the species to deal with different problems and enlarge our power to predict and control the environment. In these contexts, the philosophers elaborated very different versions of the thesis that human intelligence has limits that are impossible to transpose. In different places, Dennett has referred to this idea as the negative conclusion to the so-called *Argument from Cognitive Closure*. That perspective, in part skeptical, was based on two ideas: the human knowledge and the creation are individual achievements and we, as subjects of knowledge, are finite and fallible creatures. But it is clear that the intelligent designs based on the more advanced scientific knowledge are increasingly dependent upon the collaborative work[28], and also upon the powerful tools of "gathering, sorting and refining data on a large scale", which we have been capable of designing, that is to say, artificial agents which have the competence of the *deep machine learning*. From a positive perspective, it could be thought that these tools let the human mind do the non-transmissible duty to think and reflect upon the direction of the results and the aim of the ultimate ends. Nevertheless, the efficiency of the algorithmic processes which operate to solve the most diverse challenges, "the black box science", claims Dennett, is constantly making more evident and worrisome the fact that "... creating something is no longer the guarantee to understand as it used to be. It is now possible to make –very indirectly- things that do what we want them to do but which *we really cannot understand*" (I underline) (p. 386). The challenging issue, to clarify, is not brought by the intelligent machines which facilitate or increase our cognitive capacities "outlying", but those intelligent designs that "will usurp our authority as experts" (p. 400) in view that we overestimate their capacity to understand what they do beyond their *competence*. Dennett quotes Hofstadter's consideration (with which most of us probably feel identified) regarding Google's abuses upon the intentions of its users: "I want machines to be reliably mechanical, not to be constantly slipping away from what I ask them to do... You ask Google to do X, presuming that it will do precisely X, but it does Y instead, where Y is what it "thinks" you meant... I want machines to remain reliably mechanical, so that I know for sure what I am dealing with. I don't want them to try to "outsmart" me, *because all they will do in the end is mislead and confuse me.*" (pp. 404-405) (I underline). Hofstadter is showing his

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[28] Cfr. Smart et al. (2017) on the concept of 'collective cognition' carried out by "virtual teams" through 'socio-computational processing' (272 y ss.).

disagreement and his discontent with the abusing intrusion of the digital platforms into our epistemic autonomy, but moreover, he is expressing his concern which their effects are about our intelligence.

Dennett calls this complex scenario the age of *post-intelligence design* because not only we, the overwhelming majority of the users of the intelligent designs work with them without understanding them, but also because those who create them don't understand them fully. On the one hand, these designs act upon the basis of large databases, which are the data that we almost always transmit unintentionally, *as if they could understand* our intentions. Finally, this calls to start hesitating about the value and interest of the very comprehension: *we are satisfied with competence.* In other words: our efforts to understand have created the intelligent designs which now jeopardize our understanding capability about them and their effects upon us. The *epistemic injustice* varieties which we have identified on a micro-scale individual or social, are set in this manner on a large scale epistemic gap and in constant growth. Combined with the growing dependence that we have upon these intelligent technologies, our fragile situation (or hyper-fragility) generate a cultural and new worrisome scenario: we have created a world in which almost no one understands the extent to which the intelligent processes have been completely alienated in the hands of expert systems designed by the human mind.

6. Some Final Considerations

The digital ICTs as a varied type of *communicative affordance*s impact upon both the individual and social identities, when they take part in the type and volume of the communicative interactions between people and social groups. On the one hand, the interface between the pre-digital and digital identities produces a kind of testimonial injustice, both on the autobiographical narrative as well as on the personal memory, which is an important part of it. On the other hand, the eventual or regular use of the social networks, on the part of stable or weakly established social groups, favors ways of *hermeneutic injustices* but also allows its resistance. Beyond the positive perception that many users hold upon the expansion of their identities and autonomies concerning to the use of these tools, the alienation of the personal information and its over-registry, stocked in digital memories of personal and collective identities, transform them into *products* upon which the algorithms and companies which own these technologies "take decisions" on their behalf. In sum, the ICTs as well as the

means for a social and personal interaction, not only can produce or worsen these epistemic damages but can also contribute to counteract them. But they *always* operate, through the automatic systems that rule the applications and platforms, a variety of *digital epistemic injustice covert* which reduces the epistemic authority of the users in a deeper way.

For all of the above, it can not be said that the use of digital technologies strengthens the personal identities and autonomies on their own and facilitates or originates more social equity. Either in a direct or indirect, and deliberate manner but arbitrated by prejudices and stereotypes, diverse forms of *overt epistemic injustice* are amplified by the use of digital ICTs. Other ways of manipulation, discrimination, and oppression that find its source in the algorithms designed by companies, sites, and services that operate or rule the network, exert an even more dangerous variety of *covert epistemic injustice*.

Finally, analyzing some epistemic dimensions of the usage of the digital ICTs for the communication among people and communities, confirms that the philosophical reflection informed scientifically about these subjects are not only relevant, but imperative. If we do not accept purposefully that responsibility, next generations will face difficulties in finding in the current philosophical anthropology texts, epistemology or social philosophy, tools to understand what is happening to them or what they could aim to conquer. Furthermore, they will not understand how important it is to comprehend how and why intelligent designs increase our capacities and, therefore, how important it is not to give up our epistemic autonomy over its possible uses.

REFERENCES

Andrejevic, M., & Gates, K. (2014). Big Data Surveillance: Introduction. *Surveillance & Society, 12*(2), 185-196.

Aslam, S. (2017). Twitter by the Numbers: Stats, Demographics & Fun Facts. *Omnicore.* 12 August 2017. Online: https://www.omnicoreagency.com/twitter-statistics/.

Bennett, W. L., & Toft, A. (2009). Transnational Activism and Social Networks. In A. Chadwick & P. N. Howard (Eds.), *Routledge Handbook of Internet Politics* (pp. 246-260). New York: Routledge.

Borges, J. L. (1960). Poem of the Gifts. In: J. L. Borges, *Obras Completas*, Buenos Aires: Emecé, 1974.

Bucher, T., & Helmond, A. (2018). *The affordances of social media platforms.* In J. Burgess, A. Marwick, & T. Poell (Eds.), *The SAGE Handbook of Social Media* (pp. 233–53). London/New York: SAGE Pub.

Clowes, R. (2015), Thinking in the cloud: The cognitive incorporation to based-cloud technology. *Philosophy & Technology, 28*(2), 261-296.

Collins, P. H. (2015). Intersectionality's definitional dilemmas, *Annual Review of Sociology, 41*, 1–20.

Collins, P. H. (2017). Intersectionality and Epistemic Injustice. In J. Kidd, J. Medina & G. Polhaus Jr. (Eds.), *The Routledge Handbook of Epistemic Injustice* (pp. 115-124). New York: Routledge.

Crenshaw, K. (1991). Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color. *Stanford Law Review, 43*(6), 1241-1299.

Daniels, J. (2009). *Cyber Racism. White Supremacy Online and the New Attack on Civil Rights.* Lanham: Rowman & Littlefield.

Dean, J. (2010), *Blog Theory. Feedback and Capture in the Circuite of Drive.* Cambridge: Polity Press.

Dennett, D. (1992). The Self as a Center of Narrative Gravity. In F. Kessel, P. Cole & D. Johnson (Eds.), *Self and Consciousness: Multiple Perspectives.* Hillsdale, NJ: Erlbaum.

Dennett, D. (2017). *From Bacteria to Bach and Back. The Evolution of Minds.* New York/London: Norton & Co.

Eichhorn, K. (2019). *The End of Forgetting: Growing up with Social Media.* Cambridge, Mass: Harvard University Press.

Floridi, L. (2011). The informational nature of personal identity. *Minds and Machines, 21*, 549–566.

Floridi, L. (Ed.) (2015). *The onlife manifesto. Being human in a hyperconnected era.* Springer Open: Cham.

Floridi, L. (2016). *The 4th Revolution. How the infosphere is reshaping human reality.* Oxford, UK: Oxford University Press.

Florini, S. B. (2014). Tweets, Tweeps, and Signifyin': Communication and Cultural Performance on "Black Twitter". *Television & New Media, 15*(3), 223-237.

Fricker, M. (2007). *Epistemic Injustice: Power and the Ethics of Knowing*. Oxford: Oxford University Press.

Fricker, M. (2016). Fault and Non-Fault Responsibility for Implicit Prejudice. An Space for Epistemic 'Agent-Regret'. In M. Brady & Fricker, M. (Eds.), *The Epistemic Life of Groups: Essays in the Epistemology of Collectives* (pp. 33-50). Oxford: Oxford University Press.

Fricker, M. (2017). Evolving Concepts of Epistemic Injustice. In I. J. Kidd, J. Medina & G. Pohlaus, Jr. (Eds.), *Routledge Handbook of Epistemic Injustice* (pp. 53-60). New York: Routledge.

Gates, H. L., Jr. (1988). *Signifying Monkey: A Theory of African-American Literary Criticism*. New York: Oxford University Press.

Ghezzi, A., Pereira, A. G., & Vesnic-Alujevic, L. (Eds.) (2014). *The Ethics of Memory in a Digital Age: Interrogating the Right to be Forgotten*. London: Palgrave McMillan.

Gibson, J. J. (1979). *The ecological approach to visual perception*. New York: Tylor & Francis, 2015.

Gillett, A. J., & Heersmink, R. (2019). How navigation systems transform epistemic virtues: Knowledge, issues and solutions. *Cognitive Systems Research*, *56*, 36-49.

Giraud, E. (2015). Subjectivity 2.0: Digital tecnologies, participatory media and communicative capitalism. *Subjectivity*, *8*(2), 124-146.

Haraway, D. (1985). A manifesto for cyborgs: science, technology, and socialist feminism in the 1980s. *Soc Rev*, *15*(2), 65-108.

Heersmink, R. (2017). Distributed selves: Personal identity and extended memory systems, *Synthese*, *194*, 3135-3151. doi: 10.1007/s11229-016-1102-4.

Heersmink, R., & Carter, J. A. (2017). The philosophy of memory technologies: Metaphysics, knowledge, and values. *Memory Studies*, 1-18. doi: 10.1177/1750698017703810.

Kranzberg, M. (1985). The information age: evolution or revolution? In B. Guile (Ed.), *Information Technologies and Social Transformation*. Washington, DC: National Academy Press.

Leone, M. (2018). Semiotics of the Selfie: The Glorification of the Present. *Punctum*, *42*(2), 33-48.

Love, A. (2019). Digital Black Feminism. In D. C. Parry, L.S. Johnson & S. Fullagar (Eds.), *Digital Dilemmas. Transforming Gender Identities and Power Relations in Everyday Life* (pp. 53-71). Switzerland: Palgrave McMillan.

Marwick, A. & boyd, D. (2018). Understanding Privacy at the Margins. *International Journal of Communication, 12*, 1157-1161.

Mayer-Schönberger, V. (2009). *Delete: The Virtue of Forgetting in the Digital Age*. Princeton: Princeton University Press.

Micalizzi, A. (2014) Cyber-Self. In Search of a Lost Identity? In J. Rak & A. Poletti (Eds.), *Identity Technologies: Constructing the Self Online* (pp. 217-228). Madison: The Univ. of Wisconsin Press.

Morrison, A. (2013). "What's on Your Mind?": The Coaxing Affordances of Facebook's Status Update. In A. Poletti & J. Rak (Eds.), *Identity Technologies: Constructing the Self Online* (pp. 112-131). Madison: The Univ. of Wisconsin Press.

Morrison, A. (2019). Laughing at Injustice: #Distractinglysexy and #StayMadAbby as Counternarratives. In D. C. Parry, L.S. Johnson & S. Fullagar (Eds.), *Digital Dilemmas. Transforming Gender Identities and Power Relations in Everyday Life* (pp. 23-52). Switzerland: Palgrave McMillan.

Mossberger, K. (2009). Towards digital citizenship. Adressing inequality in the information age. In A. Chadwick & P.N. Howard (Eds.), *Routledge Handbook of Internet Politics* (pp. 173-185). London/New York: Routledge.

Nakamura, L. (2014). Cyberrace. In A. Poletti & J. Rak, *Identity Technologies: Constructing the Self Online* (pp. 42-54). Madison: The Univ. of Wisconsin Press.

Negroponte, N. (1995). *Being digital*. New York: A. A. Knopf.

Olson, E. T. (2019).Personal Identity, *The Standford Encyclopedia of Philosophy*, (Fall 2019 Edition), Edward N. Zalta (ed.), URL =<https://plato.stanford.edu/archives/fall2019/entries/identity-personal/>.

Origgi, G., & Ciranna, S. (2017). Epistemic Injustice. The case of digital environments. In I. J., Kidd, J. Medina & G. Polhaus, Jr. (Eds.), *The Routledge Handbook of Epistemic Injustice* (pp. 303-312). New York: Routledge.

Papacharissi, Z. (2009). The internet, the public sphere and beyond. In A. Chadwick & P. N. Howard (Eds.), *Routledge Handbook of Internet Politics* (pp. 230-245). New York: Routledge.

Papacharissi, Z. (2011). A Networked Self. In Z. Papacharissi (Ed.), *A Networked Self. Identity, Community and Culture on Social Network Sites* (pp. 304-318). New York/London: Routledge.

Parisier, E. (2011). *The Filter Bubble: What the Internet is Hiding from You.* New York: Penguin Press.

Parry, D. C., Cousineau, L. S., Johnson, C. W., & Fullagar, S. (2019). Digital Dilemmas. Transforming Gender Identities and Power Relations in Everyday Life. In D.C. Parry, L.S. Johnson & S. Fullagar (Eds.) *Digital Dilemmas. Transforming Gender Identities and Power Relations in Everyday Life* (1-20). Switzerland: Palgrave Macmillan.

Poletti, A., & Rak, J. (2014). Digital Dialogues. In A. Poletti & J. Rak (Eds.), *Identity Technologies: Constructing the Self Online* (pp. 3-22). Wisconsin: The University of Winconsin Press.

Reigeluth, T. (2014), Why data is not enough: Digital traces as control of self and self-control. *Surveillance & Society, 12*(2), 243-354.

Rogers, C. (2014). Digital Identity, Personal Lives, Ego Archive: Memorias personales en un mundo digital, *Tabula, 17*, 31-44.

Russo, F. (2018). Digital Technologies, Ethical Questions, and the Need of an Informational Framework. *Philosophy & Technology, 31*, 655-667.

Shirky, C. (2010). *Cognitive surplus: creativity and generosity in a connected age.* London: Allen Lane, Penguin.

Smart, P. R. (2012). The web-extended mind. *Metaphilosophy,* 43(4): 446–463.

Smart, P., Heersmink, R., & Clowes, R. (2017). The Cognitive Ecology of the Internet. In: S. Cowley & F. Vallée-Tourangeau (Eds.), *Cognition beyond the brain: Computation, interactivity and human artifice* (pp. 251-282). (2nd ed.). Dordrecht: Springer.

Stalder, F. (2018). *The Digital Condition.* Croydon, UK: Polity Press.

Williams, A. (2017). On Thursdays we watch Scandal: Communal Viewing and Black Twitter. In J. Daniels, K. Gregory & T. McMillan Coton, *Digital Sociologies,* (pp. 273-294). Bristol: Policy Press.

Yang, S., Quan-Haase, A., Nevin, A. D., & Chen, Y. (2017). The Role of Online Reputation Management, Trolling, and Personality Traits in the Crafting of the Virtual Self on Social Media. In L. Sloan & Quan-Haase (Eds.), *The SAGE Handbook of Social Media Research Methods,* (pp. 74-89). SAGE Pub.: London