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11. *The self in the digital environment: reflections on the representation of human subjectivity on the Internet from a Peircean semiotic perspective*

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Abstract

The purpose of this chapter is to discuss the representation of human subjectivity in the digital environment and make brief notes on its possible social, economic, and political consequences in the light of ubiquitous computing. In fact, as we spend more time connected and different daily activities depend on the sharing of personal information on online platforms, the investigation of representations of the self becomes crucial for reflections on cyberpolitics. Based on Peirce's semiotics, we argue that self is a sign and its development is an instance of semiosis, which is the action of signs. Our analysis will be based on empirical observations on the functioning of the social network Instagram and on the observation of the data policy of this network. However, our considerations can be extended to other forms of representation of subjectivity in digital environments.

"We shape our tools and thereafter they shape us."

(Culkin, John. commenting on Marshall McLuhan's works)

0. Introduction

The *self*, an entity from which our conscious personal identity emerges, is essentially relational, dynamic, and social. The way we represent ourselves - that is, how we produce a self-image with invariance despite the continuous variation in our life experience - is the result of a complex network of relationships that we maintain with the world around us, including our memories of past experiences. Both psychology and anthropology are rich in studies that prove the representative, narrative, and social nature of the human *self.* More recently, researches have turned to the transformations of the *self* resulting from the new forms of socialization provided by digital platforms (Jacobsen 2020). In these new virtual environments, which are structured from flows of binary digital information and mediated by algorithms that influence users' choices with increasing power, the problem of the constitution of the *self* takes on new layers of complexity.

Here are some questions to be answered in the era of the digital self: How far have the filtering and recommendation algorithms of the big digital platforms taken control over the narratives from which our subjectivity emerges? To what extent does the need to encode information in binary digits and process them in Boolean algebra interfere with the possibilities to express our subjectiveness in digital environments? Are we able to control the representations of our *selves* on the Internet? Is the self represented in social networks

the same as the one we develop in our direct relationship to the world?

Concerning cyberpolitics, in particular, we must ask if the representation of our selves through proxies created by a menu of parameters designed to serve commercial interests (such as extracting private data from users, facilitating the prospection of their behavior patterns, and increasing the predictive capacity about their future choices) is amplifying cognitive phenomena such as confirmation bias, artificial clustering of social networks and insane polarization of opinions, preventing the building of collective consensus, increasing symbolic violence and, ultimately, tearing the fabric of democratic societies. To discuss these issues from the semiotic perspective our first step is to admit that the self is both psychic and logic. This means that cognitive phenomena such as perception, representation, and communication are the compositional axes of what we call, rather crudely, the self. More specifically, the self is a symbolic entity, since the symbol is the type of sign defined precisely by its ability to represent patterns, regularities, and relationships that make up the narrative of our conscious experience. Then must be considered how symbols are impacted by digital binary codification, the dynamics of the algorithms that rule the digital platforms, the role of the policies and interface design of these platforms in the construction of meanings and, last but not least, the interactions among subjects participating in this environment, considering the network structure that characterizes these virtual spaces.

1. Semiotics as general logic

Peirce's semiotics dismisses sharp divisions between body and mind, or spirit and matter, which are common in Western philosophy from ancient Platonic idealism to modern Cartesian mentalism. The semiotic self is not taken to be an epiphenomenon of neural networks, and thus a mere if comfortable illusion produced by electrical pulses from the human brain. Nor can the semiotic self be thought from the introspective *cogito*, nor does it depend on a transcendental synthesis of the "I" as the ultimate purpose of understanding, *a la* Kant. Peirce deviates from these nominalist and psychological solutions to adopt a fundamentally logical conception of the human psyche that is closer to Aristotelianism and scholastic realism. To be sure, Peirce's semiotics is not anthropocentric, since the centrality of the generation of meanings is in the action of the sign, called semiosis (CP 5.484)[1]. In other words, anthroposemiosis is only one of its multiple aspects alongside biosemiosis and even phisiosemiosis. Thus, he saw us, humans, as inserted in a web of meanings formed by the growth and reproduction of signs in nature, in which our selves are only one of the multiple layers. In this context, semiotics is the science dedicated to investigating the action of signs and the generation of meanings in general, having human culture as a particular branch.

1 CP is the usual notation to refer to the work The Collected Papers of Charles Sanders Peirce, edited by Charles Hartshorne, Paul Weiss & Arthur Burks, according to the references below. Likewise, EP is the usual notation to refer to the work The Essential Peirce, according to the complete references at the end of this chapter. The numbers on the left identify the edition volume, and the numbers on the right indicate the paragraphs. This notation is used because many of Peirce's texts were only published after his death, in books edited by scholars of his work. For further information, see https://arisbe.sitehost.iu.edu/.

On his way to define semiotic as the general logic that governs any conceivable mind, Peirce starts from a phenomenology based on three universal categories that he extracts from his studies of Kant. He called them firstness, secondness, and thirdness because they appear arranged as ordinals in a scale of complexity. Roughly speaking, firstness is monadic and concerns originality, chance, possibilities, qualities, spontaneity. Secondness, which is dyadic, is the universe of reaction, brute force, of the "here and now", of concrete existence. Thirdness, always triadic in nature, is the universe of intention, continuity, intelligence, regularity, law, purpose, mediation. It is in thirdness that the notion of Peircean sign is found as a medium connecting the represented object and the effect or interpretant:

As a medium, the Sign is essentially in a triadic relation, to its Object which determines it, and to its Interpretant which it determines. In its relation to the Object, the Sign is passive; that is to say, its correspondence to the Object is brought about by an effect upon the Sign, the Object remaining unaffected. On the other hand, in its relation to the Interpretant the Sign is active, determining the Interpretant without being itself thereby affected. (EP 2: 544)

Still applying his universal categories, Peirce then analyses the sign into three trichotomies: the sign as monad can be qualisigns, sinsigns, and legisigns; the sign in relation to its object can be icons, indexes, and symbols; and the sign as creating its interpretant can be rhemas, dicisigns, and arguments. We won't dwell on each of these minute aspects of semiotics but we must at least discuss the second trichotomy to arrive at a precise definition of symbols, and from them to the *self*.

2. Icons, indexes, and symbols

As a vicarious agent, the sign does not represent its object in all its aspects (which would make them indiscernible) but must select one or some of them. The icon selects qualities and for this reason, can represent only by resemblance, the index selects its material connection and thus can indicate it, and the symbol selects some general property, either naturally intrinsic or conventionally imputed, and such property that can be defined as a sort of habit.

The photo of a flower can be interpreted as an icon that selects the qualities of the object; the smell exhaled by the flower can be interpreted as an index of its presence in the environment; the word "flower", as a symbol, can be interpreted as representing a class of objects through habitual use or social convention. However, for the word flower to do its work it is required that its users have prior knowledge of what a flower is (comprehension of the predicates involved in the definition of that word), and be able to recognize the objects denoted by the word "flower" (the extension of the set of these objects). In other words, they have an iconic part (predicates that incorporate the seized information) and

an indexical part (everything they denote, expressing information). Symbols without icons are blind, and without indexes, they can see nothing in particular and are therefore useless.

Symbols are, by definition, the only types of signs capable of generating information, precisely because they synthesize icons where information is connoted with indexes where information is denoted. Within symbols, icons are responsible for understanding reality, while indexes are related to the extension, as discussed by Nöth (2012). Besides, symbols are teleological, that is, they are oriented towards the future:

A Symbol is a law, or regularity of the indefinite future. Its Interpretant must be of the same description; and so must be also the complete immediate Object, or meaning. But a law necessarily governs, or "is embodied in" individuals, and prescribes some of their qualities. Consequently, a constituent of a Symbol may be an Index, and a constituent may be an Icon. A man walking with a child points his arm up into the air and says, "There is a balloon." The pointing arm is an essential part of the symbol without which the latter would convey no information. But if the child asks, "What is a balloon," and the man replies, "It is something like a great big soap bubble," he makes the image a part of the symbol. Thus, while the complete object of a symbol, that is to say, its meaning, is of the nature of a law, it must denote an individual, and must mean a character. We speak of writing or pronouncing the word "man"; but it is only a replica, or embodiment of the word, that is pronounced or written. The word itself has no existence although it has a real being, consisting in the fact that existents will conform to it. (CP 2. 293).

Furthermore, to function fully in semiosis, the symbol needs to be materialized in a replica, or 'token', which is its instantiation in a given context (CP 4.537). Because of this logical form, symbols are not restricted to an individual mind but are spread across the culture in which they participate and their meaning is always a future condition: what would be a consequence of their belief. Hence Peirce's pragmatic maxim, according to which the meaning of a symbol is the sum of all the general consequences that would result from its adoption by a community of interpreters (CP 5.402).

3. The foundations of the semiotic self

Given the above, it is not surprising that Peirce was quite literal in stating that "man is a symbol" (CP 7.583). This does not mean that human beings can do without the materiality of the physical world. Quite the contrary: like any symbol, man must be embodied in a replica to be affected by sensitive experiences. By the shock and challenges of reality that often contradict his beliefs, we are forced to admit our ignorance about what is external to us. This friction with the real is our indexical part, what we denote as being the material objects to which we are connected (the extension). The feelings, sensations, and emotions produced by experience constitute our iconic part (comprehension).

The subject's semiotic approach indicates that the self is a "communicative agent" (Colapietro, 1989: 79) and, as such, is constituted from the other. It is from these frustrating experiences

in our day to day life that our self grows, develops, seeks answers, and shares them with others. It is precisely the awareness of the limitation before the real, the ignorance before nature, the weakness before the environmental forces that surround it, that recommend to the human being to abstract and generalize from the observed regularities, creating a niche of beliefs that constitutes the origin of our knowledge.

A child hears it said that the stove is hot. But it is not, he says; and, indeed, that central body is not touching it, and only what that touches is hot or cold. But he touches it, ignorance, and it is necessary to suppose a self in which this ignorance can inhere. So testimony gives the first dawning of self-consciousness (CP 5.233).

The human semiotic self, specifically, is the result of information internalized from our human perceptual and proprioceptive apparatus, originating in the images that make up our empirical phenomena. In this perspective, Waal (2006) recalls that the body functions as a medium between the *self* and the world, determining the unity of consciousness involved in the concept of self:

Since all interaction with the world is mediated through a single body, and since the mind is both an aspect of that body and a product of that body's interactions with its environment, the body can be seen as steering the mind to unity and singularity, including a unity of consciousness (Waal, 2006:153).

More than that, the semiotic self is the result of a continuous process of propositionally structured communication, that is, with denotative elements serving as logical subjects and connotative characteristics serving as logical predicates, while information is communicated to the self "in the future" that takes on the position of immediate self in the sequence, making the whole process slide smoothly over time:

A man indicates whatever is the object of his attention at the moment; he connotes whatever he knows or feels of this object, and is the incarnation of this form or intelligible species; his interpretant is the future memory of this cognition, his future self, or another person he addresses, or a sentence he writes, or a child he gets. (CP 7.591)

The logical predicates that make up the semiotic self are its habits of feeling, its aesthetic sensitivity from perceptual and proprioceptive senses. The logical subject of the semiotic self is its existential identity (in real space-time), where the clash against reality happens all the time. Consequently, semiotic information is the purpose that determines your actions, your future habits of conduct, your dreams, and your desires.

The *self*/symbol is an agent that generates our conscious subjectivity as it reflexively represents and interprets itself, producing both the sense of objective externality and that of subjective internality, as Colapietro states:

Our reliance on symbols is not primarily one on external means of communication or reflection. This reliance is rather constitutive: these symbols are integral to our being and, as a result, are constitutive of who we are. That is, symbols are not principally *external* means, but rather internal or constitutive features of our subjectivity and agency. (Colapietro, 2019 in Guarda, 2020).

As a sign, the *self* develops continuously through experience with reality, becoming more informed in a participatory society:

[...] according to the principle which we are tracing out, a connection between ideas is itself a general idea, and that a general idea is a living feeling, it is plain that we have at least taken an appreciable step toward the understanding of personality. This personality, like any general idea, is not a thing to be apprehended in an instant. *It has to be lived in time; nor can any finite time embrace it in all its fullness* . [...] But the word coordination implies somewhat more than this; it implies a teleological harmony in ideas, and in the case of personality this teleology is more than a mere purposive pursuit of a predeterminate end; it is a developmental teleology. This is a personal character. A general idea, living and conscious now, it is already determinative of acts in the future, to an extent to which it is not now conscious. *This reference to the future is an essential element of personality* . Were the ends of a person already explicit, there would be no room for development, for growth, for life; and consequently there would be no personality. The mere carrying out of predetermined purposes is mechanical. (Peirce, 1892: 556, emphasis added).

The meaning of our lives is, therefore, the sum of all our thoughts, achievements, actions, expressed feelings, etc., that survive in the common body and memory of our community. If the *self* "must be lived in time" as stated by Peirce, and if it is impossible to understand it in its entirety from an instant, what happens when it is represented in the digital environment? Here, it is worth noting that the constitution and development of subjectivity are mediated processes:

Our relationship to the world is *a semiotically mediated relationship* : we always think in signs and we come to be one with the signs on which we rely (they are not external means, but constitutive features of our semiotic consciousness). So, too, our relationship is technologically mediated and it is so mediated in a way that is inseparable from semiotic mediation. All of this points to forms of subjectivity and identity undreamt before the inventions and innovations of the digital age (Colapietro, 2019 in Guarda, 2020).

As the relationship between the *self* and the world is always mediated, the possibilities of representation and mediation brought by the digital environment are added to other forms of mediation inherent to the constitution of subjectivity: "Language is as much in us as we are in it, and it is in us because we are of it. What is true of a natural language can be equally true of various forms of technology. " (Colapietro 2019 in Guarda 2020). Thus, languages and other tools that mediate the relationship between the *self* and the world also become, to some extent, parts of that *self*.

4. The self in the digital environment

Representations of subjectivity in the digital environment work as ways of inserting the *self* in that environment. As the boundaries between online and offline fade, these representations play a fundamental role in contemporary processes of sociability, as it is through them that subjects participate in dynamics that include work activities, conversations between friends, buying and selling of the most varied items, bookings, updating of registrations in public institutions, etc. Representations of subjectivity can take the form of profiles on digital social networks, registrations on shopping sites, or proxies generated by private systems from the collection and crossing of information, among others.

Since the information and communication technologies created new dimensions for the social, political, and economic systems, the subjectivity narratives have become a valuable asset, since mastering them can mean a competitive advantage for companies and governments in this field virtually infinite.

At the same time, it is important to consider that subjects seek to represent themselves in the digital environment for reasons other than the interests of large companies. In this sense, we will make a discussion about these representations that take into account the dynamics, the logic, the interactions, and the intentions of the different actors involved. To make our contributions clearer, we use examples from the social network Instagram, based on empirical observation and analysis of its data policy.

First, we point out that the representations of subjectivity are not the *self* in its entirety, but fragments of it. These representations are identities, according to Wiley (1994). While the *self* is a semiotic process in constant evolution, identities are circumstantial and emerge from that process. Therefore, "good identities are the overall self's bridge to the world. But if the identities are uncongenial to the person, psychologically or socially, they can create blockages between contents and structure [...]" (Wiley 1994, 36). Now, we know that a subject can have different identities or representations of himself. In this sense, the discussion about the representations of subjectivity in the digital will help to unveil under what circumstances they can function as bridges or walls for the *self*.

Second, it is important to highlight that the digital environment is symbolic par excellence since all the information contained in it goes through a process of coding in computational language. It is this process that allows information to be subsequently viewed as photos,

videos, sounds, texts, memes, hashtags, etc., based on translations operated by interfaces (such as those on social networks and other sites), and materialized through computer screens, *smartphones,* and *tablets*, among others. Thus, any representation of subjectivity in the digital environment is inscribed and can only emerge from coding in computational language. However, there are other variables that affect the creation and circulation of meanings, such as the complex interactions between different languages and codes, the interconnected actors, the possible economic and political interests of companies and governments, etc. As we highlighted earlier, in Peircean Semiotics meanings emerge from the relationships between signs. In this sense, it is necessary to recognize the continuity between signs of different natures and their impacts on representations of subjectivity. Finally, we note that the reflections on the representations of subjectivity in digital should also consider the interactions and participatory processes in this environment.

Let us start, therefore, with an overview of the aspects that involve the coding of the digital environment. Manovich (2001: 27-28) clarifies that these environments, which he calls "new media", are formed by objects composed of digital codes, that is, numerical representations that can be described mathematically. In this sense, these representations would be programmable databases. Despite the neutral character, these databases are created and valued according to certain criteria and worldviews:

Categorization is a powerful semantic and political intervention: what the categories are, what belongs in a category, and who decides how to implement these categories in practice, are all powerful assertions about how things are and are supposed to be. " (Bowker; Star, 2000, *apud* Gillespie, 2014: 171).

From this perspective, we observe that the actions carried out in the digital environment are subject, from the beginning to the bias and logic created by those responsible for coding this environment.

For Manovich, the database is a new genre of culture, in that, unlike narratives, data collections have no linear sequence and can be accessed, crossed, and correlated in various ways. But, for this mechanism to work, the action of the algorithms is also necessary. According to Manovich, "together, data structures and algorithms are two halves of the ontology of the world according to a computer" (2001: 223). According to Gillespie, algorithms are " [...] encoded procedures for transforming input data into the desired output, based on specified calculations" (2014: 167). That is, they function as filters that select and group certain data according to previously defined objectives, interfering in the way information circulates in the digital environment.

Gillespie (2014) warns that the increase in the use of algorithms in the selection of information that supposedly should be considered more relevant to people requires the observation of the human and institutional decisions that are behind them, because,

[...] as we have embraced computational tools as our primary media of expression, and have made not just mathematics but *all* information digital, we are subjecting human discourse and knowledge to these procedural logics that undergird all computation (168, italics by the author).

The preparation of data so that it can be later found, crossed and selected confirms the non-neutrality of the digital environment and the different platforms on which it is possible to represent subjectivity. To get an idea of how this happens, we point out that corporations such as Google, Facebook, Amazon, and Microsoft use algorithms to select and classify information that passes through their services and thus accomplish what Pariser (2011) calls "personalization" of the contents that will be delivered to each user.

Based on personal information offered voluntarily by users and navigation trails collected by the platforms (such as location and searches performed), these companies analyze the supposed preferences of each person and, with this, make predictions about their next choices. Besides, based on these profiles, the systems determine the content that each person should receive according to their supposed beliefs and tastes, generating the so-called "filter bubble", in which people with similar opinions and profiles tend to receive similar content (Pariser, 2011: 9).

This personalization mechanism points to an attempt to generate representations of the *self* that are aligned with the economic objectives of companies, since the framing of the *self* to certain parameters facilitates businesses such as sales of personalized ads, among others. An example of this can be seen on Instagram, Facebook's social network. In its data policy (Instagram, 2019b), the company informs that it stores data included voluntarily by the user and also data and metadata collected continuously, from the moment the user creates an account. This data includes location, device brand, operator, people with whom the account owner communicates, and interactions carried out on the profile, among others. With this information, the network makes inferences about who that person is, that is, it creates a kind of representation of the subject, to which certain meanings are attributed: " We connect information about your activities on different Facebook Products and devices to provide a more tailored and consistent experience on all Facebook Products you use, wherever you use them "(Instagram, 2019b).

Additionally, the so-called "filter bubble", created by trying to make predictions about the personal tastes of users of these platforms, can contribute to narrowing the possibilities of subjectivity narratives, since the subjects are exposed mainly to information aligned with their own beliefs and habits, while conflicting information, which could promote a clash with reality, lose space. Although it does not quote the word "algorithm", Instagram indicates that it selects content and subsequently personalizes the user experience, thus directing the content that each person will have access to. Subsequently, the information collected and processed is used in the company's business: " We use the information we have to deliver our Products, including to personalize features and content (including your

News Feed, Instagram Feed, Instagram Stories, and ads) and make suggestions for you [...] "(Instagram, 2019b).

Floridi (2014) indicates that information and communication technologies contribute to an overvaluation of digital. Thus, as people stay connected for a longer time, the sensitive experience loses space and, instead of corporeality, what the author calls "typification of individuals" appears (2014: 57), a process in which people go through to conceptualize according to patterns or molds, such as gender, religion, education, etc. This process is fueled by the constant adjustment of the subjects' self-representations to the pre-defined parameters of the networks, which can gradually exclude the particularities of each *self*. This context leads to what Floridi (2015) calls " proxy culture", in which representations in the digital environment become empty symbols, with no connection with reality:

[...] a proxy culture may become an ersatz culture, in which proxies become mere surrogates that not only hide their original references (the 'real' coffee) but make it hard or even impossible to reach it because they fully replace it without any residual link to an alternative reality. A world in which there is no chicory coffee is not a better world, but a world in which there is only chicory coffee is a worse, shallower world (Floridi, 2015: 490).

In other words, the so-called *proxies would* not only represent their objects but would act in their place, in a process that would lead to the detachment of the sensitive experience in favor of the repetition of digital patterns.

Computational syntax, on the other hand, is based on parameterization based on Boolean logic. Continuous predicates are discretized and represented numerically and quantitatively. For example, thermal sensations that can be experienced analogously in a continuum between extremely hot or extremely cold, in the digital environment are transformed into numerical scales (of a thermometer, for example) and / or discretized attributes such as hot = 0 and cold = 1. This implies the strict adoption of the Principles of Identity and the Third Excluded from Aristotelian Syllogistic, which divides the universe into two parts, creating a dichotomy in which the two parts are "mutually exclusive". In practice, this means that the parameters created in digital in a way could simplify the possibilities of representing subjectivity. When parameterization occurs on less relevant psychological, sociological or anthropological phenomena (such as the thermal sensation experienced by an individual in a given situation), the problem seems less. But it is enough to project this reduction to more complex issues, such as gender representations, personal satisfaction in work relationships, family happiness, or cultural belonging, so that even small deviations in representation will produce, over time and social dynamics, catastrophic imbalances.

This parameterization of subjectivity allows the tracking and classification of subjects based on data, that is, their transformation into marketable merchandise:

Digital platforms are the technological means that produce a new type of "social" for capital: that is, the social in a form that can be continuously tracked, captured, sorted, and counted for value as 'data'. Platforms are a key means whereby the general domain of everyday life, much of it until now outside the formal scope of economic relations, can be caught within the net of marketization. (Couldry; Mejias, 2019: 341).

The use of technological tools for the production of sociability that serves the market tends to lead to the creation of representations of subjectivity that work as walls for the self, since they seek to cast it into categories and evaluations based on data from the past, ignoring thus, that the self is a process.

Since the representations of subjectivity are mediated by codes and algorithms, it is clear that the *self* cannot control all the possibilities of representation and meaning arising from these systems. However, codes and algorithms cannot determine the representations of subjectivity alone, since the digital environment is a dynamic and somewhat unpredictable space, formed by different signs and actors, affected by culture and different interests. Here, it is worth highlighting the network character of the digital environment, insofar as it constitutes a structure that enables communication flows and connects different actors. Concerning the concept of network, Pierre Musso (2013) points out that "the network is an unstable interconnection structure, composed of elements in interaction, and whose variability obeys some functioning rule" (Musso *in* Parente, 2013: 31, our transl.). To defend a philosophy of the network, Musso (2013: 34) also clarifies the ambivalent character of the concept of a network over time, since the network can allow circulation and freedom or surveillance and control. In this sense, thinking about the narratives of subjectivity in the digital environment requires a willingness to understand the functioning of the networks that compose it as structures in constant movement.

After briefly discussing codes and algorithmic programming, we now move to the interface layer, in which subjects participate by exchanging signs of different natures and building their representations. Within the logic of the current production system, the subjects' digital self-representations are encouraged as artistic expressions and as a supposed way of revealing their uniqueness. In the so-called "artist capitalism", a term defined by Lipovetsky and Serroy (2016), aesthetics and art are used to maximize consumption and profit. This new stage of the economic system is based on the imaginary, on the immaterial, and the dream, on the encouragement of individual expression, and on the valorization of themes such as personal fulfillment, quality of life, entertainment. In this sense, "[...] the rational pursuit of profit is based on the commercial exploitation of emotions through productions of aesthetic, sensitive, distracting dimensions." (Lipovetzky and Serroy, 2016: 43-44, our transl.). As these authors point out, the economic system seeks to include other spheres of life in its functioning, using, for this, sensitivity and emotions. If before labor and consumption relations were the main target of capitalism, today several aspects of personal

and intimate life can become commodities, even subjectivity itself.

Considering corporate motivations, the creation of self-representation in the digital environment is stimulated by appeals that relate success to self-exposure. This type of speech is endorsed by companies that profit from the logic of the exhibition. For Marc Zukerberg, owner of Facebook, anyone who has more than one identity is dishonest.

"You have one identity […]. The days of you having a different image for your work friends or co-workers and for the other people you know are probably coming to an end pretty quickly. […] Having two identities for yourself is an example of a lack of integrity. " (Zuckerberg quoted in Kirkpatrick, 2010: 199).

To guide representations of subjectivity in line with corporate purposes, companies like Facebook encourage their users to follow the network's best practices. In the excerpt below, taken from the Instagram website, the social network suggests ways to build an "online presence" and attract an audience:

Amplify your voice: Posting across multiple surfaces increases your likelihood of being discovered by new audiences. Share your highlights and favorite moments on Feed. Give a glimpse into your everyday life with Stories. Interact with fans in real time by going Live. Go deeper with your audience by sharing longer videos on IGTV (Instagram, 2019a).

In other words, everything must be shown and compiled into a homogeneous, flat and available self-representation. As Han (2015) points out, the idea of transparency refers to the operationalization of actions, which would allow them to be calculated and controlled. In this case, disclosing more about one's own subjectivity means providing the necessary personal information so that the systems of these networks are continuously improved, bringing advantages to their controllers. In this perspective, there would be coercion of the subjects to expose themselves more and more and become, themselves, parts of the system, in a movement in which "everything must become visible. The imperative of transparency suspects everything that does not submit to visibility" (Han, 2015: 13).

Thus, representations of subjectivity that are based mainly on the values and guidelines of the economic system and large corporations and seek only to replicate them can also become obstacles to the self, since they would not reflect all its particular characteristics, but would only emulate patterns predetermined and would function as symbols disconnected from reality.

Despite the power of the different controllers of the web interfaces and the discourse of the current economic system, we understand that the self also plays an active role in the construction of its representations in digital, since it is a "communicative agent" (Colapietro, 1989) . The subjects who participate in the dynamics of digital environments are called "web actors" by Pisani and Piotet (2010), because:

Instead of simply receiving, we produce, publish, act. Active users, we are consumers / creators, readers / writers, listeners / writers, viewers / producers. We even have the power to organize all of this data (information, knowledge, creations), giving them tags of our creation, tags. We generate content, which we organize and modify every moment (Pisani; Piotet, 2010: 120, our transl.).

This condition of "web actors" is made possible by Instagram, since the network offers options for any user to act simultaneously as a producer and consumer of content, interfering in semiotic flows in several ways: in addition to publishing photos, texts and videos, it is possible to comment, like content, share, send private messages, follow other profiles, follow *hashtags* , etc.

Thus, based on personal motivations, we understand that the *self* can appropriate and rearrange digital spaces in favor of building representations that are more aligned with its desires. Furthermore, even in the case of Instagram, the possibilities of communicational exchanges between users also contribute to the processes of representation and creation of meanings. These interactions, such as comments and likes, are capable of interfering to some extent in the logic of the network, modifying, for example, the programming of algorithms and enabling new unpredictable meanings, since they are marked by chance. Ultimately, however, Facebook, the corporation that owns this network, has the power to reprogram and modify the dynamics of this virtual space according to its interests. As the Instagram data policy (2019b) suggests, the interactions of a profile on the network are used as a parameter for the distribution of its publications. Thus, the more interactions the profile obtains, the more it will be evaluated as relevant within the criteria of Instagram and, therefore, its publications will be displayed to a greater number of users . In this perspective, Instagram highlights that "having a community involved is fundamental to success on Instagram. Interact with fans using Stories, feed, IGTV and Live to keep the conversation going" (Instagram, 2019a).

Recuero (2012) points out that communication mediated by the computer and social networks on the Internet allows texts, images, videos and audios exchanged in these environments to become perennial and contribute to building the presence of subjects in the digital - that is, also if constitute as representations of the subjectivity of its participants. In this sense, she says that social media profiles are conversations:

We can say that they are constituted in conversations in "network" insofar as they are constructed and adapted through exchanges built with other actors, the values that are negotiated and the meanings that one wishes to build. These profiles, therefore, constitute statements that focus on the basic question of the identity of the actors. Proposed by them, the statements are legitimized or not by the network and are adapted, through these symbolic exchanges (comments, interactions and even the perceptions of the profile author), in order to delimit and perfect the idea that is intended to be constructed by the statement (Recuero, 2012: 142-143, our transl.).

In environments of digital social networks, the exchanges and reactions of different actors to the published content (such as the actions of liking, commenting and sharing) help to modulate the narratives of subjectivity, promoting the development and updating of the symbols present in the digital.

We understand that self-representations and representations of subjectivity are only constituted as such to the extent that they are subjected to experience and exchanges. Thus, the self that emerges in the digital, as one of the possibilities of representing subjectivity, does not mean a threat to the self-expression of the semiotic self. A self-representation created through an Instagram profile, for example, can become a bridge through which a person can express himself and make exchanges with subjects who are miles away in a few seconds. The possibility of creating a representation of yourself on a website dedicated to the production of petitions can help people to mobilize for a common cause.

However, it is important to remember that the self, as a sign, can only have all its potentialities developed in a conditional future, through interactions and experience. That said, the imposition of representations of the self in the digital environment as substitutes for the semiotic self can have disastrous consequences for society and for subjects. In this perspective, it is important to note that the role that digital environments have been assuming in contemporary sociability processes points to the need to assess in depth the mediating mechanisms between the self and the world so that they do not obstruct the possibilities of self expression nor limit their experiences, nor condemn subjects to standardized and disconnected representations of themselves.

5. Final considerations

As the mediating processes are part of the constitution of the semiotic self, it is worth noting that the representations of subjectivity in the digital certainly also influence and are part of that self. In a world in which online and offline merge, there is no doubt that the narratives of subjectivity in digital reverberate in the material world and cannot be dissociated from it. Thus, for the representations of subjectivity to be aligned with the self as a unit in process and to function as bridges between the self and the world, they need to be open to constant updating.

Static representations of subjectivity, which refer only to other symbols and seek to imprison the *self* , are doomed to hollowness or, even worse, to misuse, with damage to the subjects represented and to society as a whole. It is important to highlight that the representations of subjectivity in the digital are circumscribed to codes created for marketing purposes and that contain biases that interfere in the senses that will be generated. In addition, the representations are always based on data collected in the past and, however new information may be inserted, they cannot capture all the dynamism and particularities of the self. In this sense, no representation of subjectivity can be taken as a substitute for the semiotic self.

Another implication of representations of subjectivity on the Internet is related to the polarization of opinions . To make this point clearer, take as an example the extraction and processing of user data collected by large platforms, which are later used to model profiles and make predictions about tastes, behavior patterns and opinions. The use of these profiles, as representations of subjectivities, as a basis for personalizing the user's experience in the virtual world tends to limit the exposure of subjects to content supposedly aligned with their predilections, as Pariser explains (2011). Over time, this mechanism can reinforce certain opinions and beliefs that, without being shocked by diversity , tend to become polarized, with the possibility of disastrous results in areas such as politics. Ultimately, this trend can lead to dystopian representations of reality (Guarda; Ohlson; Romanini, 2018).

From the point of view of the self-representations that the subjects make of themselves in the digital environment, we highlight that they can only be conceived through interactions with other subjects and through the intertwining between the different signs involved in the semiosis process. Thus, we point out that the self does not have total control over these representations, although it is important to consider a certain autonomy of it in the face of the processes of construction and sharing of meanings. On the other hand, if the subjects seek to align their self-representations to the standards and expectations of the platforms, this could lead to a trend of standardization of representations, since they would be adjusted not with the intention of seeking a representation aligned with the particularities of the self, but to rules external to it.

Since the *self* can only communicate with the world through signs, as Peirce postulates, it is clear that it cannot be completely dissociated from its representations. Therefore, it is worth remembering that the representations of subjectivity in the digital context are permeated by processes unrelated to the subject's action, such as the collection and treatment of data and the selection made by algorithms. In this sense, the trend towards the standardization of digital identities, stimulated by platforms through the imposition of categories to which the representations must adapt, among other marketing strategies, can lead to impacts on the constitution of subjects that exceed the limits of the virtual environment and may interfere with your habits and conduct.

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