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Digital citizenship and the end of an idea of world

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Abstract

The western idea of society, founded on a contrast between citizens and limited to the cohabitation of human subjects, just as the idea of citizenship is based on the fundamental rights of people, faced with the challenges of the pandemic, of the climate change and those posed by the latest generation of intelligence network, turns out to be inadequate. The digital citizenship of today is the research area in which to search for the overcoming of the Western political project and to begin a new culture of governance within complex networks characterized by interactions within an architecture that is no longer composed either of subjects nor objects. The present article, starting from the analysis of the digital protagonism of the non-human, present the possible meanings of the crisis of the western idea of the world.

KEYWORDS: Digital Citizenship; Non Human Networks; Digital Governance; Datafication.

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1. The protagonism of non-humans

At the beginning of the third millennium, we are faced with some events that seem to definitively alter our lives, imposing profound changes on us whose characteristics defy our understanding. These are events that appear to us as autonomous and in the face of which we find ourselves almost powerless, given their size and scope. It is not about external realities or events, as their impacts are also revealed within us, reaching all areas of our lives. Timonthy Morton (2018) describes our contemporaneity as characterized by the advent of "hyperobjects":

> "*hyperobjects are non-local: any local manifestation of a hyperobject is not directly, the hyperobject itself. These exist on profoundly different temporal ladders from those we are used to as human beings. Hyperobjects have already had a significant impact on human space, both at a psychic and social level. They are directly responsible for what I call the end of the world.*"

The intensity and proportions of these events force us to make qualitative changes. In our contemporaneity, we seem to be changing our living condition and entering another type of ecology within which we must learn to dialogue and interact with non-human entities and actors.

A first example is the pandemic which caused deaths, changed our daily lives, and paralyzed the entire world economy, generating fear and instability in all the populations on the planet. A virus, a small entity that lodges itself in our bodies, has produced a particular type of transformation that develops from within our organism and that produces effects on social relations, the economy, national and world politics and in all spheres of our reality. An invisible actor, not foreseen or contemplated in sociology manuals and economic

treaties, but extremely powerful and active, capable of acting, at the same time, at an economic, political, and social level, and also at an organic and biological level.

A second event that carries profound transformations is related to climate change; that is, to the process of global warming caused by CO2 emissions, the greenhouse effect, caused by the impact of the energy model created by our economic structures of production and consumption. The rise in temperature and its consequences, such as the melting of ice layers and the rise of sea levels, as well as the advent of major climatic events, have become the horizon of our time. Finally, a third event that seems to characterize our contemporaneity is the sudden technological innovation that seems not to stop producing changes and transformations in our societies, in our habits and in our lives. The evolution of digital networks and the progressive expansion of forms of connectivity, which, after humans began to network things (Internet of things), data (Big data) and biodiversity (sensors and GIS), determined the passage of disseminative communicative forms for practices of interactions in automated environments and ecologies. If, in the first, communicative processes were narrated as practices of content transfer through media and communicative technologies, in the latter, the qualities of interactions, more than centered on the content of humans, become the result of inhabiting, no longer transmitted, but built in symbiosis with software and algorithms and, in part, developed autonomously by Big Data (Accoto, 2019).

The latest generations of networks and the digitized environments of interactions, platforms, blockchain, info-ecologies (Di Felice, 2020), refer us to a particular type of automatism that is no longer technical or mechanical, but the result of data processing and reproduction of data sequences (Campagna, 2021). In these contexts, we experience interactions with entities of different types (data, algorithms, software) that, instead of obeying our commands, offer us a dialogue and a relationship capable of providing us with an "ambience" and a particular "living condition" (Di Felice, 2016).

The virus, the weather, the latest generation digital technologies, express the advent of a protagonism of non-humans, which appears to us as a characteristic of our contemporaneity and which probably marks the arrival of a new type of common in which humans and non-humans interact and dialogue with each other.

The literature on the protagonism of the non-human interests several fields of knowledge. Within the scope of the history of philosophical thought, we find some first important examples in medieval thought, as in the case of the philosophical writings of S. Bonaventura, who considered each element of creation, nature, stones, plants, as part of creation, an emanation of God and bearers of the same dignity. But it will only be in the last few decades that some explicit examples of philosophical reflection on the argument have been recorded. First, the work of Italian philosopher Mario Perniola who, in his text *The Sex Appeal of the Inorganic* describes the change in action in philosophical thought:

> *"Having exhausted the great historical task of comparing man to God and to the animal, which in the West began with the Greeks, what claims our attention now and raises the most urgent question is the thing (...) Upon the vertical movement, rising toward the divine or descending toward the animal, follows a horizontal movement toward the thing. It is neither above nor under us, but beside us, to one side, around us" (Perniola, 1994, p. 6).*

A few decades later, Graham Harman, in his work *Object-Oriented Ontology*, inspired by a free interpretation of M. Heidegger's thinking about the thing, invites us to think about the thing from its autonomous perspective:

> *"will be no further progress in philosophy or the arts without an explicit embrace of the autonomous thing-in- itself" (Harman, 2016, p. 44).*

Even in the social sciences, born within positivism and heirs of the anthropocentric paradigm that characterizes the history of Western epistemology, in recent decades it is possible to find some signs that refer to the protagonism of non-humans. First among the others is the proposal of the actor-network theory presented by Bruno Latour and others. It describes an aggregative idea of the social, inspired by Gabriel Tarde's microsociology, characterized by a broad reticular morphology capable of including non-humans, considering them full members of society:

> "*Whoever joins, who speaks, who makes decisions within a political ecology? We now know the answer: it is not nature, nor human beings, but well-articulated beings, associations of humans and non-humans*" *(Latour, 2007, p. 71).*

More recently, some pioneering studies have shown the protagonism of the plant world, highlighting the relevance of the plant universe not only for its contributions to climate balance and the transformation of carbon dioxide into oxygen, but also for its original forms of intelligence and adaptive and organizational capacities (Macuso, 2016; Coccia, 2017).

Also in the legal world, the protagonism of non-humans has gained significant space, leading the debate to the beginning of qualitative changes. In 2017, the high court of Uttarakhand (Nainital India) conferred the legal status of a living person to the Ganges and

Yamuna rivers, considering them as entities with the same rights as the populations living between their shores. Consequently, the different tributaries and the entire ecosystem that extends from the mountains to the sea were also declared "juristic/legal, persons/living entities". In the same year, New Zealand passed a law recognizing the legal right to life of the Whanganui River, the largest navigable river in the country. Similar paths were taken by the new constitutions of Ecuador and Bolivia, recognizing mother earth and biodiversity (Pachamama) the legal right to life and prosperity.

2. The datificati multinaturalism

The idea of a social extended to non-humans finds an important basis in anthropology and ethnographic studies carried out in extra-European contexts and, therefore, in areas of populations and cultures that carry non-Western epistemes. Such studies show how, especially in the Amazon, the conception of a "multinaturalist" social is widespread (Viveiros de Castro, 2009) in which human and non-human entities interact, composing a complex and changing network of relationships. In such cultures, the distinction between human and non-human is internal to each existent. This aspect makes the set of relationships the expression of a multinaturalist, emerging and changing complexity:

> *"the ethnography of Indigenous America contains a treasure of references to a cosmopolitical theory that imagines a universe populated by different types of agencies or subjective agents, human and non-humans – gods, animals, the dead, plants, meteorological phenomena, often also objects and artifacts – all provided with the same basic set of perceptual, appetitive and cognitive dispositions, or, in short, a like soul" (Viveiros de Castro, 2009, p. 31).*

In almost the entire body of literature produced, in different areas of knowledge, on the role of non-humans and the forms of these new types of expanded social and composed of other actors, whether these things, climate, rivers, biodiversity, hyperobjects, the tangle of these relationships are presented as a physical architecture that composes a morphology of a common narrated as an exclusively material, organic and inorganic complexity.

After being represented, at the beginning, as a process of virtualization, in recent years, after its evolution, digitization has come to be seen as a process of

transfiguration of reality (Di Felice, 2020) and, above all, through the spread of the Internet of Things and sensors, as a

> *"new organicism, a new holistic vision and an active interconnection between human and non-human agents" (Accoto, 2017, p. 28).*

If, as seen, the digitization process became a process of network extensions that connected, after people and computers (social network), things (internet of things), biodiversity (sensors) and territories (geographical information systems), datificati, based on the alteration of all types of surfaces in data and on the automated connection of these, presents itself as a process of changing the world.

Far from being a type of virtualization, that is, the production of a digital copy of material reality, datificati presents itself as an ontological rupture. This rupture is based on the supremacy of the position regarding the thing:

> *"the position allows the thing to participate in its own existence only as a potential activator of the same position (...) within an ontology of positions, no single, autonomous existence is allowed. Things are reduced to the role of simple activators of positions" (Campagna, 2021, p. 44).*

In addition to moral judgment, the passage from a world made of things and matter to a world of positions implies, in addition to a departure from the idea of nature, whether understood as the creation and emanation of God or as pure and autopoietic complexity, the assumption of the passage gives an essentialist and ontological dimension of reality to that composed of events and possibilities. The material dimension is no longer the only possible way of accessing the world:

> *"From this perspective, the environment becomes an ecosystem that happens and evolves through sensing technologies. The environment is not something external that we measure through sensors. Sensors and environment become one. The programmability that we insert into environments through the presence of sensors, code and machine intelligence becomes part of this new ecology" (Accoto, 2017, p. 51).*

We start to inhabit a new common made not only of phsical realities, but also of data, a world of info-realities, that is, of materialities, biodiversities and surfaces, at the same time physical and connected, that communicate and interact with each other, through the process of *datificati* [In another context, I described this process through the metaphor of transubstantiation, used in Catholic theology to describe the process of changing the host and wine into the body and blood of Christ (Di Felice, 2017). In fact, according to the perspective of Catholic doctrine, during the Eucharistic

prayer and the laying on of hands, performed by the priest, the wine and the host change their substance, actually transforming themselves into the body and blood of Christ, while maintaining their original form. The datificati process that today interests all aspects of our reality, cities, viruses, forests, the body, etc., approaches this condition that is expressed through a profound alteration without an external and visible change]. Our ecologies thus become info-data-ecologies, our communities become info-data-communities and our common become an info-data-common. Our datificati social approaches a tangle composed of trans-organic networks of entities and surfaces that compose and express a different complexity from the systemic complexity of social relations proposed by sociology, which reduce social dynamics only to the set of relations between human subjects.

3. Digital co-worlds: from history to hyperhistory

The advent of this new type of common, datificati, no longer composed only of subject and objects (Di Felice, 2020), implies a redefinition not only of the morphology of the social, but also of the idea of action, that is, of the idea of the act and, finally, in the same sense of history. If, in an ecology of networks, acting is no longer the subject-actor, but a tangle of "actants", humans and non-humans that, when aggregated, produce an action (Latour, 2007), how to define a datificati act, that is, the result not only of associations, but of an alteration of the original substance itself? Overcoming the sociological idea of social action is based on the understanding of a new type of action that takes place in connected environments and, therefore, in areas in which, instead of producing an action of an actor towards the external, a "connective act" (Di Felice, 2017) as a result of changes in the statute originating from the connected entities. These changes do not arise from an act, but are caused by the datificati process and the connectivity between info-entities. A net-activism (Di Felice, 2017) that produces, therefore, at the same time, an alteration of the environment and of the entities that inhabit it not by the effect of an action, be it individual or aggregative, but by the initial alteration of the qualities datificati of substances and connected surfaces; a change without action that allows a qualitative transformation of each part, hybridizing it through datificati and the internal processing that such a condition entails. The overcoming of the subjective idea of action (Perniola, 1997; Eco, 1995; Latour, 2007) leads us to rethink the idea of history as the single narrative of the actors' actions and as the emergence of the evolution and decline of the set of civilizations. In reticular, connected, datificati and multinaturalist contexts (Viveiros de Castro, 2009) changes and transformations are always the result of an interacting complexity and a "*becoming*" (Haraway, 2016) and never the result of the solitary action of a main actor.

How, then, to narrate a story that is not only human? A first important example in this direction was carried out at the beginning of the last century by the German scientist Alfred Wegener, through the theories of continental drift and the studies of the movement of tectonic plates. Because of these discoveries, our planet has an evolutionary history, within which the history of human civilizations constitutes only a small part. This perspective was then deepened by geological studies, recently arriving at the Capitalocene theory developed by J. W. Moore (2015) which differs from that of the Anthropocene (Crutzen, 2005) precisely because it describes a transformation of the geological epoch not only produced by the action of the human. Moving from a merely human storytelling, in which all other species and all other entities are reduced to raw materials or insignificant objects, leads us to look for another perspective:

> *"It is urgent, therefore, that I go in search of nature, of subjects and words, of other stories, the one not yet told, the story of life" (Le Guin, 1999).*

It is in this direction that several authors point to the need to move from the narration of the history of humans to that of other stories, including the history of things (Appadurai, 1986), the history of plants (Mancuso, 2020), the history of biosphere (Lovelock, 2016) and Geohistory (Latour, 2017). The rethinking of the history of humans, understood as an autopoietic and isolated species, finds a rethinking, from the interactions with digital technologies and computerized architectures of intelligences in the work of the French philosopher M. Puech (2008) who describes the co-evolutionary dimension of the human and the technique and defends the need to think of a symbiotic evolution between the human, the technique and the nature.

More recently, Luciano Floridi starts to define our time as characterized by the advent of hyperhistory, that is, as that time in which

> *"the development and well- being of humanity began to be, not only linked to, but above all, dependent on the effective and efficient management of the information's life cycle (...) At the beginning of the third millennium, our historian of the future could conclude, innovation, well-being and added value are no longer linked to ICTs to become dependent on them" (Floridi, 2017, p. 6).*

Just as the passage from prehistory to history was accomplished by the advent of the technology of the alphabet and writing, digital technologies would be responsible for the beginning of hyperhistory. The idea

of a hyper-multinaturalist and datificati history moves its steps, from the interdependence of evolutions and transformations between the various surfaces, whether they are organic or inorganic. This perspective implies a linguistic change, an alteration that is capable of naming and narrating the hyper-complexity and hyper-dependence of these datificati ecologies. Heidegger M., a philosopher critical of metaphysical reason and Western thought, in opposition to the term "world" preferred to use the term "co-world" ("mitwelt"). As an alternative to the word human, the term "being-with" ("mitsein"), going so far as to describe the habitable condition that characterized the constitutive interdependencies of being, as ecology, through the use of the term "being-there-with" (mitdasein).

4. Organic trans governance and the end of an idea of the world

Digital citizenship has historically been thought of as the set of technological and relational possibilities that allow the intensification and improvement of relations between citizens and government, allowing the implementation of transparency practices and improving the population's access to data and decision-making processes. Alongside this double interpretation that comes, on the one hand, the technological improvement of communication and the organizational architecture of the public administration and, on the other hand, the digital increase of the active participation of citizens in the decision-making process and political activities

(Cardon & Granjon, 2010; Pitteri, 2007; Gallino, 2007; Di Corinto & Tozzi, 2002), the idea of digital citizenship is also linked to a set of legal discussions that are concerned with the need to offer rules and regulations in the digital sphere with the aim of ensuring the defense of privacy, individual freedoms and that manages to limit new types of online crimes (computer fraud, cyberbullying, violation of privacy, terrorism, fake news etc.) and, at the same time, build an appropriate law for the regulation of the network itself, ensuring equity and access to all.

Alongside these important approaches, the contribution that we are developing within the scope of research at the Atopos international center at the University of São Paulo (USP) and at the Latin American Digital Citizenship Observatory, aims to reflect on the impact of new ecologies of connectivity and datificati process, in the morphology of the social and in the western idea of world.

Contemporary forms of citizenship that, as seen, extend to new actors, have not only become something different from what we think, but are the product of a process of connecting "all things", of a process of altering the reality in data and the result of automated processings thereof. The contribution that my book on the argument makes, summarized by the term oxymoron digital citizenship, is the idea that this new type of architecture of the social, this new type of common, rather than being based on forms of aggregations between humans and non-humans, connect them through digital networks and transform it through data processing. That is, not only are algorithms, big data, actors, and entities that intervene and that contribute to the realization of an emergent, hyper-complex and networked action, but the very morphology of the common happens through an interaction of data, software, platforms and digital networks. In other words, the idea of digital citizenship describes the digital "nature" (the-nature) and the informative specificities of these new ecologies, produced by the datificati process, altered by data processing, and expressed by the set of interactions in computerized environments.

Faced with the advent of new actors connected by the last generations of networks and the datificati qualities of interactions, the western idea of citizenship, based on the contract between citizens, limited to the living together and action of human subjects and based only on the fundamental rights of people, inappropriate results.

Interaction ecologies such as digital platforms, blockchain, geographic information systems (GIS) express the forms of a new type of common, distributed and composed of info-entities and diverse data-surfaces and describe, at the same time, the advent of a particular type of trans organic ecology. The multiple process that produces, on the one hand, datificati, that is, the transformation into data and the automated processing, of various surfaces and entities, and, on the other hand, the creation of digital platforms and architectures of interactions, distributed and trans organic, needs of a reflection on governance very different from that inspired by the western tradition for the democratic participation of the polis and its parliamentary evolutions.

Beyond the idea of a natural contract (Serres, 2019), that of the parliament of things offered by B. Latour (1991) or that of cosmopolitics elaborated by I. Stengers (2005), the idea of a trans organic quality of contractuality itself of the datificati citizenship approaches a dimension that overcomes the exceptionalism of the human species and its hypothetical absolute or political power over nature, emphasizing the trans organic dimension that connects the different forms of existence. In this regard, the term simpoeisis becomes useful to describe such type of interactions without externality:

> "*simpoeisis is a simple word that means with doing. Nothing is created by itself, nothing is really auto-poietic or self-organized (...) Earthlings are never alone (...) Simpoeisis is the most appropriate word for complex,*

dynamic, reactive and situated historical systems" *(Haraway, 2016, p. 55).*

A recent example of the trans organic and datificati qualities of citizenship processes is the management of the recent pandemic. If we try to describe the set of interactions that took place, their qualities and the particular type of governance that developed from them, their properties will become clearer. The origin of the pandemic is due to the spread of a virus in the host body, a non-human entity capable of generating profound changes in behaviors, relationships, economic activities on a large scale. From the action of the virus, before or after, all parliaments and governments in the world housed their decision-making powers in the hands of a team of scientists, composed of infectious disease specialists, doctors, data analysts, experts in crisis managers, etc. These specialized teams, in turn, made their decisions, which they communicated and followed up with the parliaments to make them laws and regulations applied, consulting the big data that, in addition to monitoring in real time the progress of the spread of the virus, carried out projections and simulations on the immediate evolution of the pandemic. If we accepted to use the metaphor of parliament, we should recognize that during the pandemic the deliberative process and governance passed through interactions and debate between non-human entities, viruses, big data, vaccines and scientists and politicians, all members of the same assembly. But the datificati and connective nature suggests that the metaphor of parliament is perhaps not the most appropriate, given the trans organic and multinaturalist nature of such a process.

If at the beginning of the third millennium we lost the illusion of control over the world and technique, perhaps it is not a great loss, as we would be starting what J. Lovelock defines the age of hyper-intelligences (2020). This is the meaning that must be attributed to the end of the world. More than an improbable science fiction, the end must be related to the crisis of the idea of the world that we build in the tradition of Western thought and that narrated the human as the superior and rational species, separating it from technique, nature and all entities that nowadays connect and act and that we can listen to, observe and with which, through computer languages and data intelligence, we start to connect.

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