

THE EFFECT OF SPACE AND TIME ON DIGITAL COMMUNICATION

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ABSTRACT

The proposition of this article is to compare specific parts of the experience of existence in computerized correspondence, exploring their intermingling and/or dissimilarity according to the legendary experience of agelessness. We infer that, albeit computerized correspondence appears to manage without places and, obviously, it doesn't build up fundamental circumstances and logical results connections between the data it appropriates, its reliance on the progression of occasions distances it from what might be a legendary encounter of time and, along these lines, from space.

KEYWORDS: *Myth, Social Media, Digital Communication, Space and Time*

INTRODUCTION

Time in Space

Cancelling time and space can only be a metaphor to designate a mental or spiritual state in which the condition of human finitude is forgotten, as during mystical, loving, intellectual trances and any situations of active concentration. Lately, however, what used to be a connotation seems to have changed in nature, becoming a denotation due to digital technologies. After all, in the zone of medium dimensions in which we live, the distance loses its meaning when, however big it is, it only takes fractions of seconds to travel it - case of an email sent from one side of the planet to the other optical fibre. In these circumstances, it is easy to believe in dematerialization, as the time lag is not perceived.

However, communication and information technologies depend on very concrete material structures to function. Even satellite connections, which take place through electromagnetic waves, need dense matter to be effective, at least at the network's sending and receiving ends. Still, this type of connection represents only 1% of the entire information flow. The other 99% travel literally on the ground, or better, below the ground, in the underwater depths, through immense cables known as backbones. This extreme speed enhances the ubiquity of social networks in everyday life. The Statista website estimates that the social networks of the World Wide Web will surpass the 3 billion active users (who interact at least once a month) in 2021, which will represent one third of the planet's population. In 2017, it is estimated that there were 2.46 billion users. Comparing the number of accounts on active social networks with the populations, the statistics showed that the United States is in the top of the ranking followed by South Korea. Time seems to ignore the cycles of day and night on social networks. While in the disconnected daily life we wake up ordinarily with certain rituals and continue to perform others until it is time to return to rest, on social media saying "good morning" - although many do - sounds bizarre and even aggressive, as it supposes the interruption of a conversation it never ends. The information published in the profile of a user of social networks is organized in chronological order, the so-called timeline. More than informing the passage of time, this way of arranging information indicates the emphasis on the current, in the immediate. Time does not

pass on the networks, it is always present - hence the strangeness of saying good morning at dawn, denoting the user's alienation from the fact that his disconnection to go to sleep does not imply the disconnection of others. A social network is not a living room in a large house in which everyone has their own room and leaves for him at night, all returning to see each other in the room the other day and, therefore, greetings being imperative. On the contrary, coexistence in social networks is experienced as de-spatialization and, consequently, as timelessness. On the other hand, if it is true that "[...] man's own is to produce spatialization", as Lemos points out (2013, p. 3), it is necessary to consider that social networks, at least, they reinvent space and places. This is how cyberspace, right after fitting the definition of non-place as described by Augé (20018) - non-identity, non-relational and non-historical, space of transitory passage, depersonalized, falsely familiar - can be re signified by the user, then becoming a place. This is shown by Souza Reis (2013) in a research that pointed to the transformation of a non-typical place (a shopping centre in Porto Alegre) into a place based on the interactions and symbolic records that users of the social network Foursquare made.

Relativizing the concept of no place, really, is necessary in view of the phenomenon of digital social networks that reconstruct the world in cyberspace. Di Felice (2011), when talking about the communicative forms of living, characterizes as atopic this way of interacting with the territory and the environment in general through digitalization: "Our experience of the place and our living condition is, thus, result of a mediation between our experience with a particular type of interface used and the territory ". Thus, the place ceases to have a single meaning and is defined more through a genius loci that acts through technology and makes subjects, media, and territories dissolve their limits and are based on a kind of interactive continuity.

Therefore, when the place proposed by social networks is not a transposition from the traditional place to cyberspace, neither are the rituals of one being mimetified in the other.

Thompson (2010, p. 22) defines as "spatialized simultaneity" this property of digital communication of allowing individuals who do not share the same referential space to be heard and seen at almost the same time. In fact, time and space do not dismember, and if there is timelessness it can only occur *pari passu* with de-spatialization, because space is the matter of time and vice versa, as established by the general theory of relativity (GLEISER, 2008), from which we talk about space-time. The act of faith that configures the cultural construction of time makes it so naturalized that it is difficult to even imagine its existence inseparable from space, but the very metaphors we use to designate it - all spatial - suggest that, at some level, we know that time is literally unspeakable. Anthropological studies on the evolution of language indicate that this metaphorization is universal, although slightly different symbolisms are used with culture. Putting the future ahead and the past behind seems self-evident to speakers of most modern languages, but the Yupno people of Papua New Guinea project the future above. For the people who speak the Aymara language, and who add up to 2 million inhabitants in Bolivia, Peru and Chile, the past is ahead of us and the future is behind us (NORMILE, 2012).

Anyway, regardless of whether the future is behind, ahead or above, the spatialization of time seems rooted in the imaginary since long before the static interpretation that Einstein (apud BLANCHÉ, 1993) made of the temporal continuum, defending quantum determinism when stating that we crawl along an imagined line and find things.

Now, the metaphors of time spatialization can give us the illusion that we control it much more than we actually do. We say that we have time or that we don't have time because we learn to relate it to things, to understand it as a sequence of things in space, but is it really possible to have it?

The concept of space-time may seem more natural to common sense from these metaphors of spatialization of time, but the dynamization of space is equally feasible, although, apparently, it does not correspond to the rational imaginary. We'll get back to that. For now, we want to underline that, in everyday life, when we talk about space-time, and even when the soft sciences use this concept to positively justify certain approaches that might otherwise seem too esoteric, it is always taking the concept as metaphor, leaving further delays aside with the confidence that physics solved this problem. This is not a question of debunking the metaphor for the sake of the concept; certainly, the metaphor can be of great use for knowledge that wants to be complex because, unlike the concept, it opens up to the multiplicity of images and, therefore, of ideas. However, it is necessary to realize that the hard sciences have no conceptual answers (THE BIGGEST..., 2018) to the biggest questions from which the soft sciences borrow their metaphors.

In this regard, Gleiser (2008) explains that, being a concept of the general theory of relativity, space-time does not apply to the vicinity of the Big Bang, when it would have been created. This is because, close to the Big Bang, the distances are subatomic, that is, what is valid for macro-dimensions cannot be applied there. Heisenberg's uncertainty principle, however, allows us to infer that at that quantum level "[...] space-time fluctuates violently [...] as if it were a crazed trampoline [...]. There is no near and far, before and after [...] All of a sudden, from these space-time fluctuations there is a big enough to be described by Einstein's theory. From then on, time flows happily, marking the origin of everything" (GLEISER, 2008).

The extreme speed of digital communications seems to have provided common sense with an experience in which space and times affect each other. Could it be that our perceptual intuition of millennia of a static space and a time that flows is modified? Today, when technology enables a massive experience that is very differentiated from distances and durations in relation to just two decades, it is still introducing distinctions that we try to understand the phenomenon, which shows the pedagogical effectiveness of this method. In the case of contemporary society united by network communication, we have as an example the differentiation between space of flows and space of places proposed by Castells (1993, p. 512). In the spaces of places, "form, function and meaning are independent within the boundaries of physical contiguity". The flow spaces would organize function and power and the "structural schizophrenia between the two spatial logics [...] threatens to break the communication channels of society" (CASTELLS, 1993, p. 517). Not only is space considered by the author separately from time, but a second cleavage is also introduced into its bosom, distancing its material properties, so to speak, from immaterial ones.

Time, according to Castells (1993, p. 553), seems to change with space when "[...] cultural events and expressions are provided with temporal instantaneity that real-time communication across the globe allows". Now, if it is the instantaneity of communication that establishes timelessness, then it can be said that time is subject to space, which is the definition of the spatialization of time. The image of time represented as space - and not the other way around - is confirmed and extended, thus, from common sense to sociology, having been advanced by philosophy, as Castells himself (1993, p. 555) evokes the definition de Leibniz according to which time would not exist without things because this is an "order of succession of things". And he concludes: "The elimination of the sequence creates non-differentiated time, which is equivalent to eternity" (CASTELLS, 1993, p. 556). Would this non-differentiated time be comparable to mythical time?

From the hesiodic literary heritage, one of the closest to the historical time when the myth was widely lived in the West without yet the constraint that philosophy would impose on it, we infer that mythic time has neither precedence nor

posterity; there is no cause, beings are themselves the causes of themselves, as stated by Torrano (2012, p. 68): “[...] the nature of children is implicit in that of parents, just as that of parents continues to be make it explicit in that of the children [...] as if they were contemporaries ”.

Now, the timeless time to which Castells refers does not exist in the space of places, where "biological time" would continue to prevail (CASTELLS, 1993, p. 557), but in the space of flows. He cites as an illustration the disparities in the stages of development of different countries, such as the discrepancies in life expectancy of those who live in less developed areas compared to those who live in more developed areas. The supremacy of space over time is conclusive when the author mentions the "historical revenge of space, structuring temporality in different and even contradictory logics with spatial dynamics" (CASTELLS, 1993, p. 559). Castells sees the contradictory positions within the social structure as arising from the resistance of places to the logic of timelessness, a struggle between the domain of time for space and space for time. It should be noted, however, that if time is made up of things perceived as successive, when you say non-time you also say non-things, because space is supposed to be creating time.

Timelessness

The closest experience we have to timelessness is still mythical time. In it, the presentation of events does not occur chronologically; therefore, the hierarchy that underlies chronologies does not exist. There are no independent truths of ideas, desires, attitudes of the human being, that is, there is no objectivity from which concepts can be erected to represent the world. Events and also worldviews are presented paratatically, in the words of Feyerabend (1991), that is, as aggregates without essence or substance; information is presented in the form of lists. Perhaps, yes, the abundance of information that thrives on social networks is an update of these aggregates. It happens, however, that the atomicity of the information on the networks is only apparent, since the presentation of the posts to the user would be the result of the algorithm that estimates their preferences based on their profile and their behaviour, so that the possibility is excluded. There are no concepts behind this organization.

Castells speaks of "biological" time, perhaps referring to historical duration, just as "place" space is material geographic space. Even considering these two variables only in their physical dimension, isolated from the symbolism inherent to human experience (that is, positively dehumanizing the phenomenon), classical science, at its peak, proved that distance and time only have validity within specific referral system. Ultimately, space and time will only have the same value for the subjects who participate in the same movement (BLANCHÉ, 1993). Thus, it would not be pertinent to consider a time called biological as less relative to the timelessness to which Castells refers.

It is true that the distinction between types of space, one material and the other immaterial, and between space and time can be useful to observe the vectors that come into play in the contexts. However, if space-time is a single entity, separating space from time is as poetic as it is rational, valid as any other cultural construct. Why does spatializing time seem more natural than dynamizing space? Why do we represent time with distances and not distances with time? Why is time representable only by metaphors, being so difficult to perceive the subjective illusion of its unfolding?

Perhaps there is some relationship between the modes of perception that were privileged in the development of scientific thinking as opposed to mythical thinking. Scientific thinking prioritizes what is observed, considering what is observed externally as observed. Exterro-perception focuses on sight and hearing, senses that not only can be exercised at a

distance, but can also be experienced simultaneously by several subjects without needing a description to put what was seen or heard in common. Touch, taste, smell, on the contrary, require physical proximity to be exercised and are experienced in the core of the body; what you have as a result of them does not meet the observation criteria. The result of the experience of looking and hearing easily imposes itself as given, as self-evidence.

Seeing and hearing, thus, happen in a space and crystallize in it. And, between seeing and hearing, seeing dominates, having associated itself with knowledge itself, indicated by numerous analogies and metaphors, from seeing the truth to the illumination of ideas; the emphasis is on looking for differences rather than similarities. As Durand (2016) shows, the action of distinguishing (between right and wrong, between false and true, between good and evil, etc.) is a dynamic of the imaginary that feeds the logical principles of exclusion and identity related to the postural gesture of the human body, its fundamental appeal to rise on both feet, at the same time freeing the eyes and the ear. Now, of the three gestures of the body listed by Durand as basic in the construction of the imaginary, the postural is the only one that relates frankly to the external space - the other two are the rhythmic (sexual) gesture, which is found in the energetic vortex of regime of the imaginary linked to the logical principle of *coincidentia oppositorum*, and the digestive system, part of the dynamics of the imaginary vectorized by the logical principle of analogy and similarity.

The equation that results in a privilege of the spatialization of time thus seems to be composed of variables provided by the regime of the imaginary that for millennia has supported us in the search for control over the visible reality through a thought that we call scientific, from which we perceive intuitively space as stable and time as variable; to better dominate the latter, we fit it into the spatial criteria by which we put, for example, the future ahead and the past behind. Our perception has adapted to the demands of a specific type of thinking and, ultimately, of a regime of the imaginary.

New research shows that time seems to pass more slowly when trying new things, causing the brain to create more memories, because more things happen. At the end of the 19th century, James (1950, p. 619 apud DUPONT, 2006, p. 446) showed that the perception of time occurs as it is filled with changing physiological processes, such as heartbeat, fragments of time, phrases heard. For this American scholar of physical psychology, a precursor to neuroscience, we do not have the perception of the present as an instant that separates the past from the future. What we perceive as a duration is a synthesis between before and after, an awareness that occurs between 1/500 and 12 (five hundredths of a second and twelve seconds); more than that, it is no longer duration, but time draining away. It can be said, then, that less than that is simultaneity. Probably, this explains the sensation of eternal present in the exchange of information via optical fibre in digital communication networks.

Conceived the perception of time as a series of ruptures, long durations are hardly observed. To be perceived, time needs to be filled with events, just as it happens on the social media timeline. The greater the number of contacts, the more events is shown to the user so that, potentially, time intensifies their presence over the network. However, we easily lose track of time by jumping from link to link on the internet or attending to a specific social network, scrolling the screen, exploring suggested links and returning to the timeline. For this reason, the time rich in new experiences is lived as short, but retrospectively seen as long and vice versa⁴. Empty time simply does not exist. Consciousness is, therefore, consciousness of succession.

Easily, between clicks and scrolling screens, one is surprised by the time's advance: it seems that little time has passed, but it is just an impression that the brain has not registered any news in the interim. Thus, although interactions on social networks can occupy a large part of the user's time, this time, retrospectively seen, will seem to have passed very quickly, which indicates that the experience was not worthy of being recorded in memory.

If we do not have the time, when we say that we lack time, we are, in fact, saying that there are tasks left. Here, again, is the time defined according to a succession of events. Our habits of thought, our historical developments and the organization of our societies do not allow us to think of time in any other way, except in fantasies such as those of science fiction. It is interesting to note that perception can believe in its constructs so strongly that they permeate not only small individual actions, but a whole historical and social development and that they call reality, sending everything that contradicts it to the fantasy bin. Even when science insinuates to common sense that what may be fantasy may have a very concrete existence, the enormous cleavage between them, the same that makes science seem to the common sense something extraordinary, ensures the victory of the immediate perception that common sense has about the zone of medium dimensions that it inhabits. But, strangely, when it comes to thinking about interactions on social networks, this idea of collapsed time-space returns, acquiring utility to describe the human experience. Are the networks transporting us to a dimension other than that of the medium-sized area?

The Longing of the Myth in the Collapse of Space-Time

If it were, it wouldn't be the first time. Living beyond or below the unfolding of facts is not alien to human reality, which has already experienced this ancestrally, when it was more, connected to the so-called mythical time? With the idea of eternal return (Eliade, 1989) as a paradigm, it would be tempting to say that digital communication throws us back in this mythical time. However, neither the eternal return is really a mythical time, nor the network communication inserts us in the eternal return. As stated by Torrano (2012, p. 86), the eternal return is already the work of a thought that is fond of abstraction, with a nature that is repeated. Now, mythical time has no repetition, but multiple presences of divine forces - that is why Zeus can be both father of and conceived by the Muses. For this reason, too, the crimes of later generations, more than just avenge, justify the crimes of the improperly called their ancestors - the murder of Agamemnon by his son Egisto, far beyond atoning for the countless murders that the Pelopida committed in the search for power, as perhaps he can understand Aeschylus' already rationalized interpretation, he justifies the *harmatias* (αμαρτίες) committed by his, so to speak, ancestor Tantalus, son of Zeus and Pluto, by betraying the gods three times. In myth, time and space are not things but qualities - adjectives and not substantives because they are subordinate to presence, to Being. In the endless succession of clicks that ritualizes communication in networks, what we have is the subordination of the evening time and space: an experience without a transformative impact that temporarily cancels the awareness of time; this awareness comes later, qualifying the time used during such a process as very fast, in the same way that the awareness of space is momentarily lost to be, later, resumed with the surprise of the impression that the interlocutor was right there.

In the logic of social networks, it would never be possible to abolish time because the fabric of interactions is the very successive presentation of things. However, the idea that time can be annulled with the sensation of instantaneity that characterizes digital communications is re-presented each time that common sense expresses itself about the phenomenon, which is detectable in the various demonstrations of incredulity and resignation in face of what is described as an acceleration of time. The same imagination capable of constructing sequential historical time is, therefore, receptive to its

deconstruction. Both procedures are symptoms of ancestral resistance to the resulting fall in time, as underlined by Eliade (2000), of discontent with personal or local history, parasitized by the desire to overcome the moment; in a word, for the desire to enter the improperly called beginning of time, when everything was still fresh, new, vigorous.

Imagination about the collapse of space-time, even if rationally denied, resists because it is based on the fundamental nostalgia of myth. Although founded on logical principles common to rationality understood orthodoxy as its own opposite, the myth frees the human from the burden of history, allowing the entry into a world that, paradoxically, having everything ready, allows everything to be experienced.

REFERENCES

1. AUGÉ, M. *Not places: Introduction to Anthropology of Super modernity*. Campinas: Papyrus, 2018.
2. DURAND, G. *The Anthropological Structures of the Imagination*. Paris: Dunod, 2016.
3. MOTTA, M. P. *Topology of internet backbones in world*. *Society & Nature*, vol. 24 n. 1, Jan./Apr. 2012, p. 21-35.
4. Darin, B. *The Network Society*, Polity Press Ltd. 2004.
5. ELIADE, M. *The Myth of the Eternal Return*. Gallimard, 1989.

