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LAND, FREEDOM, AND DIVERSITY: METAPHORS TO THE DIGITAL WORLD?

TERRA, LIBERDADE E DIVERSIDADE: METÁFORAS PARA O MUNDO DIGITAL?

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Abstract

We can formulate metaphors about the complex, dynamic, and ever-expanding social media environment, as Castells did in his 2003 work The Internet Galaxy. However, with its new ways of use — even with the expansion of access to a broader population — - we may face a possible contradiction: the potential infinite galaxy of the Internet would be ever so limited into a closed world. Another possible metaphor that will be upheld throughout this article is the notion of the land as lively, dynamic, complex, and full of live entities, similar to Yanomami's way of thinking (Kopenawa & Albert, 2019). Such portrayal of land as a metaphor may also apply as an example of what the Internet can (or could have) been in juxtaposition to the white man's impoverished vision of the land (Kopenawa & Albert, 2019) — or the westernized, eurocentric —, who sees it as something sterile or just as a resource for profit, focused in the monoculture of the land, in other words, the impoverishment of the diversity of life (Shiva, 2003). In this sense, this article brings together the thoughts of different Global South authors regarding a more complex, dynamic, and lively conception of the land. It demonstrates how this framework may constitute a theoretical weapon when considering the Internet, its tensions, and possible outcomes, having the Brazilian surroundings as a departure point. In light of the above, we may question: how far can the metaphor of social media as the land, this fertile, complex, blossoming, and diverse soil (Kopenawa & Albert, 2019), contribute to the debate regarding digital networks and their potential? Moreover, what are the limitations that the monoculture of uses may develop?

Keywords: The Internet Galaxy, Freedom, Diversity, Monocultures, Controversies

1 Introduction: From the Riches of the Land to the Riches of the Network

We might explore different metaphors to describe the Internet, and one we abide by in this work is the earth (as land), not just land as its material form but also relative to its riches and prospects of land as life itself. It addresses that life-rich land, as alive entities, as Davi Kopenawa (2019) claims, to be from the shamans' point of view. That means a portrayal of the earth that stretches beyond the minds of white men, who happen to see nature through limited lenses and, due to that, do not refrain from destroying it (Kopenawa & Albert, 2019). This Eurocentric skewed view about the land reduces it to something simple and detached, hence, dead. According to Kopenawa & Albert (2019), though it might even look quiet and unaltered, it is, in reality, alive, and this is where its beauty lies. Drawing inspiration from the thoughts of Kopenawa & Albert (2019), the Internet would be that lively land, complex and beautiful, and not that skewed, dead, and up for the taking, as displayed in the recurring non-indigenous people's thinking. The idea of the Internet as an actant — i.e., an actor that moves, leaves traces, and, in a certain way, is alive, according to Bruno Latour's (2012) perspective — seems to fit this proposal, just like the land one.

The Internet, though, appears to be less and less alive, spread, and autonomous, as one could infer from the land or infinite galaxy ideas (Castells, 2003). By any means, this article intends to disregard the fact that the Internet has enlarged and developed throughout the last few years. By observing its uses and possibilities for the broader population, the main point is that such developments seem restricted to a few specific ways of use, such as social media. This limitation is more profound when we observe that each social media network works within its limited logic and parameters, curtailing the infinite galaxy of Internet prospects we could benefit from, as observed in the Brazilian matter (CGI, 2023). In this article, we compare the reticular libertarian rhetoric logic from the beginnings of the Internet — which developed into a digital utopia (Turner, 2006) — and social media's closed architecture, especially the one from Meta Inc. In Brazil, this kind of use is the most recurring one (CGI, 2019), stemming from the notion of platforming and its domination of communication means (Poell et al., 2020). In that manner, the Internet is becoming ever more limited, as a dead means or as the land through white people's eyes, according to Kopenawa (2019).

As described by Vandana Shiva (2003, p. 15, our translation), "the main threat to life among diversity springs from the habit of thinking in monoculturistic terms, what I called as "monocultures of the mind". In that sense, the monocultures of the mind deeply contribute to the end of diversity, and the end of diversity implies an end to different alternatives (Shiva, 2003). There is a tendency of monoculture in the means

of Internet use. These uses have been turning ever more specific and limited, given to the “digital lands” of the Internet, akin to the colonization or dressage of this space, in a definition coined by Antonio Bispo dos Santos (2023), in his quilombola perspective:

> Both the trainer and the colonizer begin by uprooting the person's identity or being they target, severing its connection to its worldview, separating it from its sacred beliefs, imposing new ways of living, and renaming it. This act of domination is an effort to erase one memory so that a new one can take its place. (Santos, 2023, p. 2, our translation)

Here, the author approaches the quilombolas sacred notion of the lands. However, could we extrapolate that idea to think collectively about the Internet’s wicked paths known to us? In this article, by taking a look into the Global North author’s optimism about the potentialities of the Internet throughout the 90s and the beginning of the 2000s (Castells, 2013; Lévy, 2003; Turner, 2006), we aim to understand the reasons why even after the broadening of access for the wider population, as such is Brazil’s case, private social media companies’ logic has subverted digital networks’ infinite potentialities of uses. A bibliographic revision from Global South critical authors, in juxtaposition to the Global North theorists, is appointed here, aiming to develop analytic, critical weapons in opposition to the eurocentric monocultural modern thinking (Shiva, 2003), with the latter imposing a restricted view of progress.

New rich and complex perspectives will be brought, making use of concepts and theories crafted by Global South authors detached from the eurocentric pattern, demonstrating tensions in the digital world considering land and biodiversity metaphors (Kopenawa & Albert, 2019; Shiva, 2003; Santos, 2023). Such insights do not establish parallels to the topic at hand. However, these concepts may just as well become a prosperous path for reflections on social media, especially in the Brazilian situation. The main goal is, in such a way, to enrich the debate about the constraints in digital ways of use, developing counter-hegemonic pathways.

2 Internet as a Network of Networks and the Need for Recomplexifying It

The value of the forest’s fertility in Yanomami’s thinking, i.e., the constant vitality from which the land sprouts, is named *në rope*, a concept the recurring white men’s way of thinking fails to grasp (Kopenawa & Albert, 2019). Would it be possible to find something like the *në rope* in a broader, more lively, and complex view of the digital networks? Or even coming from the broad notion of the pure jungle, similar to the equatorial Amazon Sarayuku people who also view the forest as anthropogenic, more precisely “(...) more-than-anthropogenic, in the sense that it comprises densely populated territories by its predecessor remnants (*tayakkuma*), by human beings and non-human beings tangled in care, affection, predation, and precaution networks” (Santos, 2023, p. 163, our translation)? Beyond a constricting modern definition, it is interesting to perceive the concept of pure jungle as the “pure” Sarayuku, which comprises movement, the connections, and as such, some contradictions. This complex network of networks with human and non-human beings, loaded with traces of their predecessors or past relationships, might be a base metaphor for the Internet’s complex galaxy.

Considering digital networks’ potentialities since the beginning of their popularization throughout the 1990s decade, it is essential to point out how impactful this reticular logic was as a network (an ever-expanding universe, infinitely) for the culture, economy, and society as a whole (Lévy, 1999; Castells, 2016; Di Felice, 2017). Such technologies set in motion transformations in the logic of telecommunications and traditional means of communications, all set in an unidirectional model, pointing outwards to a receiving audience. Massive transformations came with the diffusion of digital networks, reshaping that one-to-many communication logic and opening itself up to more possibilities as many-to-many models.

French philosopher Pierre Lévy (2008), by the beginning of the 2000s, would perceive the complexity of digital networks in a very optimistic light, stemming from the notion that cyberspace would never stop expanding itself and, in that sense, it would begin breathing in universalization. It would not be in any way a restrictive universalization but one without a totality, ever moving, never being fully comprehensible. There was a break for a bigger democratization within those possibilities and with the enhancement of multimedia technologies in a non-linear logic, not only for information access but also its production. In that sense, the idea of a shared and collective production started sprouting and structuring towards achieving collective intelligence (Lévy, 2003), nearing the Yanomami people's perceptions of forest and land (Kopenawa & Albert, 2019).

A myriad of interesting, creative, and constructive aspects are shown to be even more present in cultural productions in the urban settings of Brazil with the growing usage of digital networks. Such are the cases of *tecnobrega* in the Brazilian state of Pará, which brought fascinating

novelties to the whole national music production and business (Lemos & Castro, 2012) and hip hop in Sao Paulo, to name a few. Over the 2010s decade, given political struggles, various demonstrations happened worldwide through digital networks, with new horizontal and participative organizational ways (Castells, 2013; Di Felice, 2017). In Brazil, the most notable examples of these collective political struggle actions were the June 2013 (Ortellado, 2013) protests, the eclosion of the Feminist Spring (Pinheiro-Machado, 2019), and the school occupations in the state of Sao Paulo (Tori, 2021).

All these events demonstrate the positive and creative impact of democratization and broader access to digital networks, primarily through the use of cell phones (Silveira, 2012). On the other hand, at the same time all that had been happening, other matters also came to prominence: the rise in hate attacks and negationism towards science, the ever-growing diffusion of misinformation, and the vulnerability of democracies in countries across the world (Bennett & Livingston, 2018), showcasing Brazil as a foundational case (Cesarino, 2020). With that in mind, a pivotal question arises: How does the diffusion of digital networks contribute to collective production and widespread, almost endless access to information and simultaneously propagate all the abovementioned problems? Where is the life, the fertility, the riches, and the beauty of these “digital lands”? In a way, the democratization of access to the networks is in motion. However, let us look at the kinds of use and possibilities for the general people. Such access is almost completely limited to a few social media networks with their private logic, limitations, and closeness as opposed to the potentialities that the free, open, fertile, and democratic Internet could provide, as observed in the Brazilian case (CGI, 2023).

The beginnings of the Internet as we know it today emerged in the 1970s in the United States of America. With a military warrant aligned to the Californian libertarian thinking present around that time, designing network architecture in a daring and even unexpected turn of events — with influential universities and the emergence of the hippie movement (Castells, 2016). As Fred Turner (2006) claimed, there is a fundamental relationship between counterculture movements in California, such as Whole Earth Network, and the emergence of Cyberculture. Manuel Castells (2016) states that, from that expansion, we began to live in an effectively globalized network society. Such an idea is based on real case studies, especially with the widening possibilities of the most diverse kinds of quick interactions amassing the whole world, sharing data and information, and providing ever-growing cultural access. However, as Lévy (2008) claims, everything goes on the Internet, and nothing is erased. That is why we must keep our guard up since there is no filter, and all ideas (even those that may hurt human rights, for example) may overtake such means. Drawing a parallel with the land, we may think about pesticides, which have essential roles in rationalizing the soil, being of great value for agriculture, but their unrestrained use can cause it to wither. We must also proceed cautiously when dealing with the possible pesticides of the “digital lands”.

There was a quick spread of the Internet at the beginning of the 90s, but what set that in motion were the lowering of costs, connectivity, and larger bandwidth in the cell phone generation (Castells, 2016). Cell phones then started to have great processing capacities (Silveira, 2012), as seen through the 2000s with the arrival of smartphones. Philip N. Howard (2011), when analyzing Manuel Castells' thinking for the Science, Technology, and Society (STS), emphasizes that the Internet — even in the 2010s — was not yet a well-distributed network as some great thinkers might have believed: "(...) African and Latin American countries certainly have information networks, but the connection between them is not as important as their connection to North America and Europe” (Howard, 2011, p. 6). The inequality of access and production in digital networks has, on a large scale, a geographical reason behind it. That means that the wishes of Brazilian geographer Milton Santos (2018) in the 90s for a different, counter-hegemonic globalization, where the poorer populations of the world should overtake the technological tools (with a particular focus on the Internet), is still far from becoming a broad and palpable reality. Therefore, the widening of access to the Internet by the general population would not be a resolution for this matter since there is still a need for a qualitative approach regarding this very access.

3 Land and Diversity as a Metaphor for Digital Networks?

The democratization of access to the Internet is taking place, in a way. For instance, by 2022 in Brazil, over 81% of the population 10 years or older had some kind of access (CGI, 2023), coming from a share of 74,5% of the population in 2018, following an upward trend (IBGE, 2020). It is also substantial to point out that 99% of the population had access to the Internet in 2022 through a cell phone, the only means of access for 62% of those people (CGI, 2023). Another outstanding data, according to the National TIC Domicílios research (CGI, 2019), is that 93% of the country's households already have access to at least one cell phone. Nevertheless, when taking a closer look, we realize

that 93% of the users utilize it via instant messaging applications, with social media also being the primary use for 80% of the users, an elevated percentage (CGI, 2023).

At the same time as cell phones are reaching a more significant number of people and thus expanding Internet access on a global scale, there is a surge in hate speech, right-wing governments, and a profusion of fake news and misinformation. All this has been happening in different parts of the world, as in the case of Donald Trump's election in 2016 (Howard et al., 2016; Bennett & Livingston, 2018) and Jair Bolsonaro election in 2018 (Cesarino, 2020) in Brazil. Given these events, the term "post-truth" happened to be deemed the world of the year, according to Oxford Dictionaries. In addition, work relationships crumbled before the excessive use of applications, which happened to be called the uberization of work (SLEE, 2019). All these matters have been sprouting and becoming ever more pivotal globally, under a seeming contradiction: a notable increase in Internet access through cell phones. What could that possibly mean? Does democratization mean a reduction in the quality of this access? In that sense, one could bring land reforms issue hand to hand the access to digital networks. Regarding the land, the Green Revolution (Shiva, 2003) brought benefits and gains, but to whom exactly? So, it is always imperative to consider the complexities, contradictions, and agents behind every development: Who benefits from it?

It is vital to pay close attention to the fact that the Internet's democratization is happening via cell phones and that most of them utilize data plans with monthly fees for Internet access. Such plans have data limits, but many provide unlimited use for Facebook and Whatsapp applications from the same company (Meta). This practice is called zero rating and, according to Belli (2015), would not be compatible with the net neutrality determined by Law n. 12.965/2014 (Brasil, 2014), known as The Civil Framework for the Internet. The endorsement of such practices in Brazil molds a skewed view of what the Internet is to a large share of the population, which limits its usage through these applications and cannot reach farther beyond once its data limit is reached. This way, not only does there form a restriction of use directed towards these very applications, but it also has a dependence. As such, the reticular complexity of the Internet, its fertility, and its potentialities to the general population are mostly being undermined.

Would the most pressing matter lie in expanding digital network access to the population? With the amount of shared information expanding on an unprecedented scale each day, the informational world we are part of grants economic, social, and political preeminence to those who can manipulate large chunks of data and bits (Silveira, 2015). Large companies that operate with the so-called Big Data and Data Mining are the richest globally, according to Silveira (2015), as is the case of Meta or Google. Moreover, how do these companies operate? Facebook, the largest social media in the world, has its own set of parameters within its environment. Its informational architecture holds sway, and its uses are only performed under the logic mentioned above, which was developed and accepted by the company. It is widely regarded as the weight of Facebook in current public debates. However, the biggest problem, according to Silveira (2015), is that this platform, which exerts a crucial role as a public virtual debate and articulation stage, has its own private regulation, which grants them full power to block or remove content as they please. All the libertarian and decentralized logic from the Internet's inception is broken behind the walls of these large social media sites, such as Facebook, which are highly centralized and predefined (Silveira, 2015). A common ground should, then, be claimed toward land reforms and the digital world.

Silveira (2017, p. 192, our translation) states: "The informational society is constituted by technologies which communicate and control simultaneously". In other words, we should not forget about the complexities and political, social, and technical contradictions the network society might bring. This wide opening allows some parts and influences to be taken by whoever is more powerful, becoming fragile in the face of significant economic powers (Silveira, 2017). Ideology plays an essential role in building new technologies. It is observable that these kinds of matters are within individual liberties (right-leaning), but also collective action liberties (left-leaning). However, these tendencies are never isolated and are also hard to distinguish (Torres, 2019), being a complex web embedded with political ideologies.

Considering such complexities and contradictions, how has the Internet shaped in recent times? According to Luca Belli's article (2015), the Internet is becoming more akin to a feudal environment, with separate non-communicating spaces that develop their own rules or laws –- the impoverished monocultures that expand in all directions, as well stated by Vandana Shiva (2003). Despite all that, freedom of choice exists for the user within cyberspace and the inclination towards applications or services. Beyond being a fundamental foundation of the Internet's libertarian ideals, it is a human right to emit and receive ideas freely (Belli, 2015). However, such a right is only secured, as states Belli (2015), through the principle of network neutrality, which is the judicial mechanism that imposes no discriminatory control on Internet traffic. Revisiting the Yanomami thinking:

> The forest's fertility resides in the surface layer of the soil. From this layer flows a life-giving, moist breath that we call *wahari*. This cool air emerges from the darkness of the underworld, from its vast river, *Motu uri u*, and from the chaotic being *Xiwãripo*. The guardian of this is the spirit of the forest, *Urihinari*. (...). We describe this as the forest's skin. So, when the white people strip it away with their tractors, only rubble and sand are left deep within the land, and the moisture vanishes. This fresh dew is like a liquid akin to sperm. It fertilizes the trees, reaching into their roots and seeds. It is this force that causes them to grow and flourish. The land will lose its fertile scent and become barren if it disappears. (Kopenawa & Albert, 2019, pp. 470-471, our translation).

The internet, as a complex and rhizomatic entanglement (Di Felice, 2017; Lévy, 2008), is a fertile and beautiful life, just as the land is a skin to the forest in the Yanomami's thinking. Current hegemonic thinking destroys these riches and beauty, and it can also hinder and sterilize the potentialities of the virtual setting.

The dominant economic mindset in digital networks through social media confers the illusion of life, growth, and participation. However, it resembles the trees that white people plant, as described: '(...) mango, coconut, orange, and cashew trees do not know how to summon the rain. They grow weakly, scattered throughout the city in a ghostly form' (Kopenawa & Albert, 2019, p. 471, our translation). This metaphor can also be applied to eucalyptus plantations, which appear lush and prosperous at first glance. However, in reality, they deplete the land and only thrive within the capitalist framework of productivity and profit (Shiva, 2003). In other words, social media does have life and significance.

Nevertheless, it is isolated — in its logic, entirely controlled and restrictive — from the richness of the complex, diverse ecosystem it could potentially belong to. It represents a separate, regulated life and incapable of self-management; it is not as fertile or abundant as it could be, and may even degrade the environment. Ultimately, it functions like a monoculture or, more specifically, like eucalyptus plantations, designed to create uniformity at the cost of biodiversity (Shiva, 2003).

4 From the Struggle for the Land Diversity to the Digital Environment Diversity

Kopenawa and Albert (2019) argue that when white people alter riverbeds, clear riverbanks, and use engines to burn trees, they drive away the forest's wealth, leaving it unhealthy. In this context, we see Western and white technologies presented as a form of progress. However, they harm the vitality, richness, and beauty of nature's complexity and land. Similarly, we observe how the dynamic, vibrant, and intricate environment of the Internet is losing its vitality, growth, and beauty due to the influence of powerful economic groups — many of whom are also white — who restrict its potential to narrow, easily controlled uses, which impoverishes its true capabilities. That is reminiscent of the Green Revolution, which almost succeeded in standardizing global agriculture to become more profitable, mainly through the overuse of pesticides, but ultimately undermined the diversity of nature, poisoning the environment, animals, and humans (Shiva, 2003). How universally beneficial is this singular view of progress?

These are examples of how the idea of constant progress and linear development, stemming from modern European ideologies, is not as universal as they would like it to be, being a limit when just one way of living and knowledge is followed so far. That is the monoculture of knowledge and mind developed by Vandana Shiva (2003). This development has destroyed many indigenous communities all over Brazil; for example, those who try to live out of the so-called civilized world grid end up being trapped by this very development (Cunha, 2019). In a less impactful way, we can monitor the flaws in this development and cumulative progress notions when observing the potentialities and possibilities the Internet brought us in its first uses and the limited way all this development has brought it.

It is essential to recognize that indigenous peoples and other traditional communities play a vital role in maintaining agricultural plant diversity and contributing wealth to the land and human consumption. This concept, known as agrobiodiversity, is crucial for ensuring food security (Cunha, 2019). What may be perceived as underdeveloped in a capitalist framework is the richness of the land and the diversity these communities bring, in stark contrast to the impoverishing effects of monoculture (Shiva, 2003). Similarly, digital networks' diversity, complexity, and interconnectivity are being diminished by the monocultures, divisions, and privatization of social networks that currently dominate the Internet. Just as the forest, for the Sarayaku people, is a complex web of living beings beyond humans, connected through vast communication networks (Santos, 2023), the Internet must also reclaim this intricate web of relationships among its participants (Latour, 2012) to unlock its full potential as a rich, ownerless galaxy, full of contradictions but abundant in opportunities for diverse forms of appropriation.

In platform capitalism (becoming increasingly monocultural), large corporations — particularly the dominant social networks — employ advanced technological tools to maximize user attention in more personalized ways. That is done by gathering personal data under the pretext of improving user experience while simultaneously storing details of individuals' lives and creating bubbles that isolate like-minded people (Silveira, 2017). Just as the Internet's creation and development were shaped by ideologies that can intersect (Torres, 2019), algorithms — often seen as neutral technologies by the public — are, in reality, not neutral at all; they "carry the determinations imposed by their programmers" (Silveira, 2017, p. 1332, our translation). Algorithms are always intertwined with other actants (Silveira, 2019). Therefore, it is essential to open up these technologies, as users have the right to understand the foundations of the codes being used (Silveira, 2017).

Algorithms have earned a growing pivotal spot with the social media explosion worldwide. User content is distributed across them by targeted advertisements. Therefore, there is no shared experience among people on all social media platforms, and their use has become more and more tailored to oneself (Silveira, 2019). All this increases social media's worth and, according to Silveira (2017, p. 86, our translation): ”(...) the informational, post-industrial society, intertwined with cybernetic technologies, has reshaped the capitalist market to the point where it relies on a microeconomy of personal data interception. The underlying contradictions of these developments are obscured, as user experiences are streamlined for greater efficiency, while simultaneously, these practices generate "exclusions and socially unacceptable costs" (Silveira, 2017, p. 91, our translation). Given the dominance of major social networks in daily life and large corporations' extensive control over personal data, one must ask: What influence do they wield over society and politics? Silveira (2017, p. 239, our translation) also argues, "The end of privacy would simply mean the indistinction between private and public space." This process accelerates the commercialization of life in ways never seen before (Silveira, 2017). As the author rightly points out, the Internet embodies the contradictions and complexities that technologies inevitably bring. Therefore, the fight for access to the Internet is fundamental for the expansion and true democratization of technological and informational tools.

It is important to remember that before the advent of the Internet, telecommunications companies were solely focused on providing telephony services. Since telephone cables only transmitted voice calls, there was no need for differentiated service plans. Telephone operators were neutral regarding what passed through their networks (Silveira, 2017). However, with the rise of the Internet, operators began attempting to sell the amount and speed of data passing through their cables and filter what is transmitted, offering different plans for specific applications (Silveira, 2017, p. 466, our translation). As a result, net neutrality becomes a critical safeguard, ensuring that those who control communication infrastructure do not interfere with data distribution. This shift, in turn, plays a crucial role in democratizing Internet access (Silveira, 2017; Belli, 2015). Neutrality is guaranteed when no content is prioritized within telecommunications systems, promoting greater democratization and more equitable information distribution on the network (Torres, 2019).

As Torres (2019) claims, the free and open Internet ideology is complex and amasses discourses from well-distinguished fields. Therefore, it is not easy to separate them, nor would it be sensible to do so. The contradictions and complexities of such debate are part of it since the technologies are power apparatuses, as Silveira noted (2017). In that sense, informational capital widens its reproduction with the aid of the Internet, owned by the large technology companies that reach for more worldwide access. However, these companies do not seem to get along well with a “(...) distributed interactive potential that facilitates free communication and the coordination of activist groups and dissidents of the socio-economic system” (Silveira, 2017, p. 1397, our translation). As a result, contradictions and controversies are crucial for understanding the Internet and its mechanisms while also recognizing that the significance of its openness represents a weakness for powerful entities — with differing interests. That is how the current way of thinking states that the tropical forest would be the fruit of counterproductive chaos, demanding a more rigid and effective organization for the monocultural technologies to attain more significant productivity, control, and riches (as in capital) (Shiva, 2003). Considering these thoughts, what about the wealth and riches of nature’s biodiversity and life?

With that in mind, let us reclaim the idea of disciplining or colonization brought by Antonio Bispo dos Santos (2023):

> Some trainers use force and offer affection; some rely on punishment, while others use food to create dependency, but they are all still trainers. All training, regardless of method, aims at making animals perform or produce objects of attachment and pleasure. However, not all animals are capable of being trained (Santos, 2023, p. 2, our translation).

Allowing us to access social networks 'for free' is a form of gentle conditioning, especially when we are fed the feeling of some satisfaction. However, to what extent are we truly aligned with or fully benefiting from the wealth of the digital complex galaxy?

5 Conclusion

As aptly described by Jerá Guarani (2020) in her accounts of the São Paulo Kalipety village reoccupation by her people — which was eventually acknowledged as Indigenous land by the National Foundation for Indigenous Peoples (Funai) and later by the Ministry of Justice — the first action they took after reclaiming the land was to plant on it. So they did with immense joy, using the diverse seeds they had exchanged at different fairs. The land, though vast, had been degraded by large eucalyptus plantations established in the area by squatters (Guarani, 2020). Yet,

> we started by treating the land with organic fertilizer and green manure (...). In six years, we managed to restore over 50 varieties of sweet potatoes and over nine types of corn. We also planted peanuts, green bananas, cassava, and plants that the Juruá (white people) call PANCs (non-conventional edible plants). (Guarani, 2020, pp. 5-6, our translation)

The land was then rescued by the so-called “savagery” of the Guarani Mbya people — as classified by the assumed civilizational progress of European modernity, centered on monoculture and environmental degradation - restoring diversity and life richness. Hence, Jerá Guarani's (2020) call is essential, encouraging more people to embrace wilderness.

As in Yanomami’s worldview (Kopenawa & Albert, 2019), the concept of fertility is a model to follow and be fought for a more prosperous, vast, fertile, and diverse environment of the Internet, which started closer to this. Taking different paths for the diversity of thoughts and uses by the different people of planet Earth. Namely, for this to happen, the prevailing white men’s mindset must not exercise complete control over the digital networks possibilities, as Milton Santos (2018) remarked on the importance of reappropriation, rather than denial, of such technologies by peripheral populations — in a broader sense. As Jerá Guarani (2020) claims, all bad things in the world derive from the Juruá, but there are good things from this culture as well. It is possible to grow and develop partially incorporating it: “I wanted to show my people that we can learn the other people’s culture in order to defend our own better (...)” (Guarani, 2020, p. 9, our translation). Close to that idea, Bispo do Santos (2023) also believes that it is necessary to weaponize their enemies as a defense form to defend themselves from the colonizer society. Aligned with the Sarayuku people, Santos (2023) advocates for rather than imposing a singular way of life or a single, universal world, it is about fostering the possibility of multiple worlds coexisting and learning from one another, in opposition to essentialism and universalism. In such light, the Internet needs to reclaim its confluence, which is:

> [...] The energy that is moving us towards sharing, towards recognition, towards respect (...). When we confluence, we do not stop being ourselves, we become ourselves and someone else — we surrender. Confluence is a force that surrenders, that increases, that expands. (Santos, 2023, p. 4, our translation)

The *Internet Galaxy* concept (Castells, 2003) can be revisited from this viewpoint; in other words, an Internet that embraces multiple worlds within its interconnected networks and rhizomes could offer more diverse, democratic, and complex uses, enhancing the planet's diversity through the ways its tools are used and appropriated — which should be open, accessible, constantly evolving, and not confined to narrow, controlled, and uniform structures like monoculture. In this regard, we are reminded of Vandana Shiva's statement: "Monocultures are indeed a source of scarcity and poverty, both by eradicating diversity and alternatives and by undermining the decentralized control of production and consumption systems" (Shiva, 2003, p. 17, our translation).

Accordingly, the purpose of this article was to explore the critical insights of thinkers from the Global South, such as Vandana Shiva, Davi Kopenawa, Antonio Bispo dos Santos, and Jerá Guarani, as examples of how the belief in a singular, white (Kopenawa & Albert, 2019), and Eurocentric model of progress limits the inherent potential of technologies like the Internet and the ideas they provoke. The metaphor of knowledge, land, and diversity presented by these authors demonstrates ways to appropriate, enrich, and create counter-hegemonic uses that can enhance the digital network of networks. In other words, like the land at the foundation of forests — open, chaotic, yet brimming with life and beauty (Kopenawa & Albert, 2019) — it should not be confined to the regulated uses of a few applications and social networks, as observed nowadays in Brazil.

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