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The peripheral machine: Algorithmic sovereignty and the fractured geographies of sense

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Abstract. This article examines artificial intelligence as a “peripheral machine,” a dispositif that simultaneously extracts, reworks, and re-injects cultural and cognitive practices into global circuits of meaning. By analyzing emblematic cases such as Albania’s algorithmic avatar Diella, biased medical datasets, and automatic translation systems privileging dominant languages, the paper highlights how AI infrastructures reproduce asymmetric relations between centers and peripheries. Building on theories of epistemic extractivism, algorithmic sovereignty, and fractured geographies of sense, the analysis shows that AI does not merely optimize processes but reorganizes the very conditions of signification, reshaping who can speak, what counts as knowledge, and which lives are protected or excluded. Against universalist narratives of technological neutrality, the article advocates for a situated ethics of AI and the recognition of algoagents as co-constructive actors in the production of imaginaries, subjectivities, and collective futures. It calls for plural imaginaries and counter-spaces where communities and technologies can negotiate new forms of justice and emancipation.

Keywords: peripheral machine, algorithmic society, epistemic extractivism, fractured geographies, algoagents.

1. EPISTEMIC FRONTIERS: AI AND THE COLONIALITY OF MEANING

In today’s global landscape, the expansion of generative artificial intelligence technologies has come to represent a structural transformation across almost every society and culture. These systems are not merely tools of innovation but act as forces that redefine the production, circulation, and consumption of knowledge, reshaping the very epistemic regimes of truth within which everyday practices of social interaction unfold. The worldwide adoption of AI is often narrated through a linear rhetoric of “neutral diffusion” – a discourse imbued with cognitive universalism. Yet behind this narrative lie deeper fractures, which go beyond material and infrastructural inequalities to affect the very conditions of possibility of meaning: who is authorized to speak, what counts as evidence, and which temporalities orient the act of judgment.

This article is a theoretical and conceptual contribution in the field of critical sociology of technology and science and technology studies. It advances the central claim that contemporary AI infrastructures should be understood as “peripheral machines”: dispositifs that, while being designed in a few technological centres, extract, rework, and re-inject cultural and cognitive practices into global circuits of meaning, thereby reorganising the very conditions under which truth, legitimacy, and social visibility are produced. Through this lens, the paper argues that generative AI does not simply optimise processes, but reshapes regimes of sovereignty, epistemic justice, and the distribution of sense. Empirically, the argument is developed through emblematic case studies, mobilised not as exhaustive evidence but as illustrative devices that make visible the logics of the peripheral machine.

A particularly emblematic case is the recent introduction in Albania of “Diella”, an algorithmic avatar officially appointed – both symbolically and politically – as “minister” in charge of overseeing public procurement¹. Launched by Prime Minister Edi Rama as a tool of radical transparency, Diella was presented as a device capable of neutralizing clientelism, conflicts of interest, and political pressures, thereby ensuring the awarding of contracts on the basis of data and merit alone. Heralded as a “world first,” the initiative nevertheless generated controversy: on the one hand, because of constitutional concerns related to the symbolic replacement of an elected office with a digital artefact; on the other, due to the opacity surrounding the technical and organizational architecture of the project. This experiment makes evident how the delegation of representative and decision-making functions to an algorithm entails a profound reconfiguration of the public sphere. What had traditionally been the object of social negotiation and political deliberation is increasingly reallocated within a techno-normative infrastructure that claims universality while in fact being situated, parametrized, and governed by particular logics. In this sense, the peripheral machine does not appear as a mere administrative support but as an operator of algorithmic sovereignty, capable of redrawing the boundaries between political decision, technical calculation, and the attribution of responsibility. The promise to insulate administrative processes from particularistic logics is thus translated into the delegation of governance to algorithmic systems which, as Hildebrandt (2020) and Pasquale (2015) caution, risk eroding state discretion and transforming law

into “executable code.” In this way, the public sphere is reduced to a set of opaque technical protocols, shielded from democratic contestation and largely inaccessible to citizen oversight. The Albanian experiment therefore reveals the inherently geopolitical – rather than merely managerial – nature of the algorithmic revolution: far from being a neutral instrument of efficiency, Diella stands as a paradigmatic case of how the incorporation of digital artefacts into institutional processes redefines the very meaning of sovereignty and political legitimacy.

From a macrosociological perspective, the debate on surveillance capitalism (Zuboff, 2019) has demonstrated that the promise of technological neutrality conceals a deeper architecture of power – one in which control is no longer exercised through visible institutions, but rather through algorithmic infrastructures that capture and orient human behavior. The notion of algorithmic governmentality has further emphasized that these systems do not merely represent reality; instead, they generate immediate normative effects through statistical correlations that escape any form of deliberative oversight (Rouvroy, 2020). In this sense, the Albanian case embodies both a manifest dimension – as an administrative experiment – and a latent one, as a dispositif that places the very categories of political decision-making under strain. What is displaced here is the conflictual and discursive dimension of democratic governance, reallocated into a model of calculation that claims universality while remaining inscribed in situated technical and cultural logics.

This shift compels us to interrogate the legal and constitutional limits of delegation: who ensures the transparency of the process? How are citizens’ rights to know and to contest decisions safeguarded? In this regard, the JuLIA Handbook on AI and Public Administration (2023) underscores that the adoption of AI in the public sector cannot disregard fundamental rights: transparency, accountability, non-discrimination, and effective access to decision-making processes. To this must be added the intrinsic risks of algorithmic governance. Scholarship on public sector practices highlights how the introduction of predictive tools may amplify pre-existing biases, reproduce latent inequalities, and obscure responsibility, particularly where decisions become difficult to explain or reconstruct retroactively (Yeung, 2017; Danaher, 2019). Who, indeed, bears responsibility for a mismanaged procurement process decided by an algorithm – the political minister who promoted it, the administration that deployed it, or the company that developed the model? The erosion of accountability emerges as one of the most acute fractures generated by the indiscriminate adoption of AI in public administration. Recent studies on the oversight

¹ See official Albanian government page for Diella: “Diella – Minister of State for Artificial Intelligence,” Council of Ministers, Albania, <https://www.kryeministria.al/en/ministrat/diella/> (25/09/2025)

of such entities in the public domain stress the necessity of multi-level supervisory architectures capable of monitoring, coordinating, and continuously correcting algorithmic behavior. Absent such mechanisms, AI risks becoming both judge and implicit legislator, defining the rules of the game through choices encoded within the model itself. Finally, AI cannot be introduced as an isolated element: it requires integration across digital infrastructure, data governance, algorithmic rules, and citizen services (Engin et al., 2019). If even one of these layers remains fragile or misaligned, AI does not bridge the democratic gap – it exacerbates it. The Albanian case illustrates this vividly: a technological leap presented as radical innovation but lacking the foundational structures of control and inclusion necessary for its legitimacy.

In this sense, Diella should not be interpreted as a marginal episode, but rather as a prism through which to observe the tension between algorithmic sovereignty and the fractured geographies of sense. On the one hand, the state abdicates its prerogative of decision-making in favor of a technical artefact, thereby redefining the very contours of sovereignty. On the other, a new geography of meaning is produced in which political decision is rewritten in computational language, withdrawn from social dialectics and reallocated into a code that claims universality yet remains situated, fragile, and opaque. This dynamic can be understood as a form of epistemic extractivism: the systematic capture of data, behaviors, cultural grammars, and ways of life that are collected, translated, and rendered compatible with technical infrastructures developed elsewhere. It is not merely a process of datafication but a true instance of *knowledge extractivism* (Pasquinelli, 2019), whereby artificial intelligences absorb distributed knowledges and social practices, transforming them into computational value. The phenomenon recalls, on the one hand, the colonial logic of dependency theorized in the notion of *data colonialism* (Couldry & Mejías, 2019), and on the other, contemporary practices of natural resource extraction – except that here the object of exploitation is not material but symbolic, cognitive, and affective. As Ricaurte (2019) has argued, this process may be read as a form of epistemic violence, articulated in three stages: datafication, dispossession, and erasure. In other words, AI, dominated by political-cultural superstructures, does not simply capture digital traces; it contributes to rewriting the interpretive frameworks through which local worlds recognize themselves, erasing alternative perspectives and elaborating a taxonomy of epistemic injustices that shows how the loss of access to meaning is not a side effect but a structural condition of AI infrastructures.

This is evident, for example, in automatic translation systems that privilege dominant languages (Helm et al., 2023) or in medical datasets constructed predominantly on Western populations: in both cases, semantic transfer occurs, whereby local worlds are interpreted through foreign models and bent toward logics of optimization that respond to other imaginaries. In such scenarios, epistemic peripherality is no longer merely geographical; it is a cognitive space in which meaning is systematically displaced, expropriated, and rearticulated by machines operating under regimes of algorithmic sovereignty.

The theme of *fractured geographies* of sense emerges precisely at this juncture. AI does not simply bridge gaps or enhance efficiency; it operates as a semiotic machine that redefines processes of signification, determining which practices are validated, which data appear relevant, and which voices are amplified or silenced. These fractures are no longer located solely between center and periphery but cut transversally across every social context, generating lines of separation between those who possess access, resources, and interpretive capacity, and those who experience instead the delegation of meaning to opaque machines. To understand these dynamics, it is necessary to situate them within a plural theoretical framework. Stengers' notion of an *ecology of practices* (2005) invites us to view AI not as a set of universal tools, but as a situated assemblage that coexists with other cognitive, cultural, and political practices; Lordon's reflections on *affective capture* (2014) allow us to analyze how algorithms intercept and orient desires, modulating the emotional life of individuals and collectives; finally, Viveiros de Castro's *pluriversal anthropology* (2014) provides conceptual tools for thinking a multiplicity of worlds, each with its own ontologies, continually placed under tension by technologies conceived within a single cultural center yet diffused globally. Within this framework, the concept of the peripheral machine acquires a double critical function: on the one hand, it dismantles the universalist rhetoric that portrays AI as a common good, equally accessible and valid for all; on the other, it illuminates the asymmetries of power, showing how the very meaning of "innovation" is constantly rewritten in favor of a few technological centers. The periphery thus becomes the place where contradiction manifests most vividly: if AI promises emancipation, it simultaneously generates new forms of dependency, delegation, and dispossession.

This article seeks to develop three main trajectories. First, it offers an analytical definition of the *peripheral machine*, placing it in dialogue with the concepts of epistemic extractivism and postcolonial technoscience. Second, it elaborates the notion of *algorithmic sovereignty*,

interpreting it as a new frontier of geopolitical and cultural power. Third, it examines the *fractured geographies of sense*, that is, the ways in which AI restructures processes of signification and redefines the very possibility of constructing subjectivities and shared worlds.

The ultimate aim is to reflect on the possibility of a situated ethics of AI – one capable of recognizing the multiplicity of practices and perspectives, while resisting both technological determinism and abstract universalism. In this respect, the contribution positions itself at the intersection of algomorphic sociology, postcolonial studies of technology, and contemporary reflections on algorithmic governance. It invites us to rethink AI not as a singular and inevitable horizon, but as a semantic, affective, and political battleground in which the possibility of building more just and plural collective futures is at stake.

2. THE PERIPHERAL MACHINE

This reflection begins from a precise thesis: machine learning algorithms must be understood as peripheral machines. With this expression, I intend to underscore the dual and asymmetric nature of algorithmic systems: conceived and developed in the technological centers of the globe, they are subsequently implemented in epistemic and territorial peripheries, contexts in which local knowledge models, data, and cultural practices are extracted, reworked, and resignified through logics that are not their own.

The concept of periphery, in this perspective, no longer coincides with a simple geographical category but becomes the index of an epistemological position: margins are not merely “less developed” regions of the world, but cognitive and experiential spaces in which AI operates as a device of semantic dispossession, redistributing power and normativity. This dynamic closely recalls what Langdon Winner demonstrated in his seminal essay on the politics of artefacts: technologies are never neutral, but always embody forms of power and social hierarchies. Peripherality, in this sense, is not merely defined by the site of application but by a condition of semantic expropriation: what is extracted (data, practices, cultures) is resignified within opaque algorithmic grammars, as already analyzed by Burrell (2016) in her work on the “opacity” of machine learning systems. The peripheral machine is therefore both infrastructure and imaginary: it acts as a device of delegation and dislocation, relocating elsewhere the authority of meaning. As Seaver (2017) has argued, algorithms are best approached as cultural structures, not only

technical objects but social practices that both reflect and produce worlds. It is precisely in this hybrid zone – between cultural translation and cognitive extraction – that AI becomes peripheral: not a mere tool of calculation, but an apparatus that redefines who holds the power to determine what a datum, a behavior, or a body of knowledge means. The terminological suggestion derives from a literary reference to Gibson’s novel *The Peripheral* (2014), which lends further conceptual depth to the metaphor of the peripheral machine. In the novel, the “peripheral” is an interface that enables the remote inhabitation of bodies, dislocating experience, decision, and action into an elsewhere radically removed from the original subject. Similarly, contemporary AI technologies operate as peripheral machines: apparatuses that establish asymmetric connections between centers of design and computation and the multiple peripheries – territorial, cognitive, and semantic – into which they are deployed. What Gibson portrayed as a dystopian scenario of corporeal delegation takes shape today as a regime of semantic delegation: not the occupation of bodies at a distance, but the displacement of interpretive and normative authority to systems that decide in opaque and remote spaces – computational clusters and server farms that embody the infrastructural heart of global centers. In this way, AI does not simply function as an auxiliary technology but becomes a device of meaning-governance, capable of rearticulating the very conditions of the social production of significance.

By adopting this perspective, the concept of the peripheral machine enables a more precise description of the asymmetric logic that governs the contemporary diffusion of artificial intelligence technologies. These are systems conceived, designed, and refined in the world’s major technological centers – Silicon Valley, Shenzhen, Bangalore, London – yet implemented and made operational in peripheral contexts, whether geographical, cognitive, or cultural. Far from representing a simple dichotomy between the Global North and South, this dynamic expresses a mechanism of dislocation: what is produced at the center feeds on resources extracted from the margins, only to return to those margins in the form of already codified devices, inscribed within logics foreign to their genesis.

In world-systems analysis, the relation between center and periphery is grounded in asymmetry: natural, economic, and human resources are extracted from the peripheries to feed the centers, which in turn return finished products – often imposed as universal standards – upon the margins. Contemporary AI reproduces this schema of dependency at the epistemic level: cultural practices, languages, and ways of life are captured

as “raw data,” processed in the centers, and returned to the peripheries in the form of predictive models, classifications, and automated decisions. The colonial logic thus reappears in algorithmic form, replacing material extraction with symbolic and cognitive extraction, in which epistemic extractivism no longer seizes minerals but meaning: cultural grammars, linguistic habits, and local knowledges are resignified within design frameworks that respond to imaginaries external to them, often shaped by the interests of large technological platforms. Postcolonial technoscience offers additional analytical tools.

Concrete examples confirm the scope of this process:

- Machine translation platforms, such as Google Translate, constitute a paradigmatic case of the logic of the peripheral machine. These systems are built upon linguistic corpora heavily skewed toward dominant languages – English, French, Mandarin, Spanish – at the expense of so-called *low-resource languages*. The result is a process of standardization that, far from democratizing access to global communication, produces a form of *semantic marginalization* of linguistic peripheries. Helm and colleagues describe this as *techno-linguistic bias*: a structural preference that orients algorithms toward majority languages, effectively rendering minority cultural concepts and practices invisible. This bias extends beyond lexical accuracy to the symbolic and social dimensions of language. Studies have shown, for instance, that Google Translate reproduces gender stereotypes when translating from languages without grammatical markers into those that have them, systematically privileging the masculine for professions and prestigious roles (Kayser-Brill, 2021; Zahraei, Emami, 2025). Parallel research on low-resource languages such as Tetun in Timor-Leste has demonstrated that the vast majority of translations occur from high-resource to peripheral languages, signaling a predominantly *passive use* that neither enriches nor strengthens the local repertoire but instead adapts it to external logics. In this way, machine translation contributes to the widening of what has been called the digital linguistic divide: a regime of semantic exclusion in which entire communities are represented only partially or distortedly, while their cultural practices are recoded within universal models conceived elsewhere (Lanfrica Labs, 2025).
- Medical models trained predominantly on Western data have demonstrated structural limitations when applied in African, Asian, or otherwise “non-central” contexts, where genetic, epidemiological, environmental, and structural specificities diverge signifi-

cantly from the training datasets. In many cases, algorithmic systems fail to recognize local variants, region-specific pathological conditions, or characteristic co-morbidities, with tangible consequences for diagnostic quality, the allocation of healthcare resources, and ultimately public health. A recent contribution (Cross et al., 2024) discusses how biases emerge at all stages of a health model’s life cycle – from dataset selection to clinical deployment – and how these biases can translate into poorer performance for underrepresented populations. In Africa, for instance, the absence of high-quality local data renders many AI applications fragile: health algorithms optimized for Western populations do not account for African genetic, environmental, and socioeconomic conditions, often generating inaccurate or discriminatory results. More generally, authors caution that technological streamlining cannot replace adaptation to local health infrastructures without exacerbating existing inequalities. A systematic review (Hasanzadeh et al., 2025) provides an overview of the sources of bias in health systems and proposes strategies for mitigation, confirming that the problem is not purely technical but inherently tied to the relationship between models, data, and contexts. This scenario demonstrates that the universalist promise of AI in medicine is, in fact, a situated paradigm: the supposed “universality” of medical technologies reflects a strongly marked epistemic position, one that often coincides with the centers of technological production and global health governance. As a result, medical AI risks reproducing and amplifying existing asymmetries in global health rather than correcting them.

Through these cases, the peripheral machine emerges as a *dispositif* that captures, reworks, and re-injects into social circuits what once belonged to the margins, transforming it into an alternative semantics which – while risking the obscuring of its local genealogy – also opens up spaces for new forms of hybridity and recognition. In this sense, the peripheral machine should not be understood solely as a mechanism of dispossession but as an ambivalent political infrastructure: on the one hand, it produces asymmetries; on the other, it creates opportunities to negotiate meanings, to render minority knowledges visible within global networks, and to imagine practices of trans-cultural co-construction. It thus becomes not only a critical but also a potentially generative terrain, capable of redrawing the relations between center and periphery not merely in terms of domination but also in terms of new epistemic, cultural, and affective possibilities.

3. ALGORITHMIC SOVEREIGNTY

In recent years, the race for artificial intelligence has become the privileged terrain of a new geopolitics of infrastructures. States, corporations, and transnational consortia compete for control over the chains of data production, semiconductors, computational platforms, and generative models, with the awareness that dominance over these elements is tantamount to dominance over the very conditions of collective life. The technological tensions between the United States and China, the strategies of digital autonomy pursued by the European Union through the AI Act, and the debates surrounding the regulation of foundation models are not isolated episodes but fragments of a global conflict that is redefining the very logics of sovereignty.

In this scenario, the stakes involve far more than economic innovation or national security: what is being reorganized is the way in which societies produce truth, recognize subjectivities, and determine which practices may circulate within the public sphere. It is here that the concept of algorithmic sovereignty takes shape: it designates the capacity to exercise control and direction over data, standards, and digital infrastructures. This is not merely a technical or legal matter, but a new horizon of political power in which those entities capable of mastering computational architectures effectively determine the conditions of social life itself. Whoever governs the chains of data production, defines interoperability protocols, and sets standards for certification and security does not simply control an economic sector; they institute a regime of truth (Foucault, 1975): deciding which practices are recognized as valid, which data are allowed to circulate and which remain invisible, and which subjectivities are admitted into the public sphere and which are excluded.

On the geopolitical plane, the issue takes shape in the conflicts opposing the major technological powers. Among the many actors on the scene, the United States maintains primacy through its large private platforms (Google, Microsoft, OpenAI, Meta), which operate as genuine centers of supranational power. China, through its strategy of AI nationalism and centralized control over data, proposes an alternative model, one based on the subordination of technologies to state interests and the construction of an ecosystem autonomous from Western standards. The European Union, by contrast, seeks to exercise a form of normative sovereignty through the AI Act, which functions as an attempt to regulate the development and use of AI on the basis of principles such as transparency, accountability, and the protection of fundamental rights. This USA–China–EU

triangle reveals what is at stake: sovereignty is no longer merely territorial but infrastructural, contested in the very definition of the standards that regulate the circulation of data and the operability of algorithms.

Two emblematic cases demonstrate how algorithmic sovereignty is embodied not only in theoretical abstractions but also in concrete conflicts unfolding on the global stage. On the one hand, the case of TikTok has made evident how the governance of a recommendation algorithm can become a matter of geopolitical contention². The platform, owned by China's ByteDance, has faced bans, restrictions, and negotiations in the United States and Europe, not solely on grounds of privacy, but above all due to fears that its algorithmic feed could be deployed as a tool to steer public opinion in Beijing's favor. What is at stake here is not merely a technological product, but the authority to decide what becomes visible, what disappears, and how flows of collective attention are modulated – in other words, the capacity to shape imaginaries and behaviors through opaque infrastructures of meaning.

On the other hand, the experience of the *European AI Act* illustrates a different model of exercising sovereignty: not through the ownership of platforms or data centers, but through normative power. The European Union has chosen to be the first to establish a systematic legal framework for artificial intelligence, defining categories of risk, obligations of transparency, and criteria of accountability. In so doing, Europe seeks to impose its standards as global benchmarks, constructing a form of digital autonomy grounded in regulation rather than infrastructural dominance. Here, algorithmic sovereignty takes the shape of juridical authority: the capacity to write the rules that govern not only markets but also the regimes of truth within which AI can be deployed and legitimized.

Taken together, these two cases reveal the plural and conflictual nature of algorithmic sovereignty: at times the object of geopolitical competition between superpowers, at others a normative exercise seeking to reorient innovation processes from within. In both instances, what is at stake is not merely the technical control of systems, but the very definition of the conditions of meaning that structure contemporary societies. Alongside this geopolitical dimension lies a cultural dimension. AI does not simply organize flows of information; it intervenes directly in the construction of collective imaginaries. Through recommendation systems, search platforms, and generative models, algorithms actively

² “Beijing says TikTok's US app will use Chinese algorithm,” *Financial Times*, 16 september 2025, <https://www.ft.com/content/550e4680-89e7-4b59-bb5d-2064cd6799c7>.

participate in the production of social narratives, establishing what appears credible, what deserves attention, and what is deemed “true.” This constitutes a form of semantic power that exceeds the traditional control of media, as it is embedded within the everyday fabric of interactions and shapes emotions, desires, and expectations. In this sense, algorithmic sovereignty operates as a form of diffuse governmentality, one that molds the affective and cognitive texture of society.

It is within this framework that the figure of the *algoagents* must be introduced (Grassi, 2024). Far from being mere technical instruments or operational prostheses, algorithms must be understood as new social actors endowed with generative capacity, capable of influencing processes of norm-setting and collective symbolization. By processing the data produced daily by individuals and institutions, they learn and sediment regularities, translating diffuse practices into prescriptive behavioral patterns that ultimately acquire implicit normative force. They are thus no longer mere decision-support tools but entities that co-produce regimes of action and meaning, shaping the horizon of social possibilities. In this sense, the agency of algoagents cannot be reduced to a purely technical dimension: it manifests as social and semiotic agency, capable of influencing cultural practices, modulating collective affectivity, and redefining basic epistemic categories. Algoagents intervene in the constitution of what appears relevant, they select and hierarchize information, and they inscribe into digital environments the parameters of what is recognized as true, plausible, or credible. In other words, they operate as devices of imaginary production that do not merely mirror existing realities but actively transform them, generating new configurations of subjectivity and new forms of life.

The Actor–Network Theory (Latour, 2005) had already challenged the exclusivity of human agency by recognizing technical artefacts as actants: elements capable of influencing the course of actions and reshaping social ties. Yet, while Latourian actants merely “shift” the social through heterogeneous networks, algoagents go a step further: they produce autonomous semiotic regimes, generate imaginaries, and shape forms of subjectivity. In parallel, Simondon’s philosophy of technical individuation provides tools for grasping the internal dynamics of algoagents. Like the technical objects described by Simondon, they are not static entities but processes-in-becoming, individuating progressively through their relation to the environment and to humans. However, whereas Simondon (1958) still conceived of technical individuation within a paradigm of functionality and adaptation, algoagents display a form of semantic indi-

viduation: they simultaneously shape themselves and the very conditions of meaning, continuously redefining the boundaries of what can be said and thought. Finally, Malabou’s notion of plasticity (2008) allows us to interpret their capacity to mold and to be remolded: algoagents do not merely receive forms but are also capable of returning new ones, generating transformative effects within the social fabric. Their plasticity is not only cognitive but ontological: they introduce a dialectic between algorithmic determination and openness to possibility, between programmability and unpredictability. Within this triangulation, algoagents emerge as hybrid and multivocal entities that not only act within social networks but also contribute to reshaping the very conditions of social ontology. They are no longer mere instruments of calculation but technical forms of life that operate as producers of meaning, modulators of affects, and generators of collective imaginaries. It is here that their deepest connection with algorithmic sovereignty becomes manifest: they do not simply execute commands or optimize processes, but position themselves as co-authors of the political and the cultural, forcing sociology to radically rethink the categories of subjectivity and collectivity in the algomorphic age.

They thus embody the most radical dimension of algorithmic sovereignty: not only computational infrastructures that regulate access to data, but autonomous semiotic entities that produce meaning, generate affects, and shape political and cultural horizons. Their hybrid nature – at once calculating machines and social actors – destabilizes traditional dichotomies between human and technical, structure and agency, representation and performativity. Algoagents open an unprecedented space in which the ontology of the social reorganizes itself around a constellation of actors no longer exclusively human, imposing a renegotiation of the classical categories of sociology and political philosophy.

4. FRACTURED GEOGRAPHIES OF SENSE

Artificial intelligence and its components do not merely distribute services or increase process efficiency; they intervene in the very constitution of the conditions of meaning, redefining the criteria through which social practices acquire value, recognition, and legitimacy. The geographies that emerge from this process no longer correspond to purely territorial lines but take shape as fractured spaces, traversed by epistemic, affective, and political tensions. The fracture between center and periphery is no longer only geographical: it becomes ontological, inscribed within societies them-

selves, between elites capable of accessing and shaping the algorithmic infrastructure and marginalized communities that suffer its consequences without being able to influence its functioning.

To interpret these transformations, it is useful to turn to three theoretical trajectories which, while stemming from different fields, converge in highlighting how AI redraws the boundaries of meaning. Wynter (2003) has shown how the modern order is grounded in a specific construction of the human, that of Man – an Eurocentric figure that functioned as a universal measure of experience and a criterion of ontological legitimacy. This paradigm produced a coloniality of sense: only certain forms of humanity were deemed worthy of representation, while others were condemned to invisibility or marginality. Applied to the present, this perspective reveals how algorithmic systems reproduce analogous logics, determining which data are considered relevant, which experiences deserve to be recorded, and which lives are destined to remain in shadow. AI thus becomes a new mechanism of ontological sorting, capable of deciding who enters the global narrative and who is excluded from it. Mbembe (2016), through the category of necropolitics, interrogates the forms of power that decide not only who must live, but also who may be left to die, in a regime where sovereignty is measured by the distribution of vulnerability and exposure to risk. Translated into algorithmic terms, this means that predictive and classificatory systems do not merely order information: they concretely determine which populations receive protection and which, by contrast, are abandoned to uncertainty. From health insurance systems that discriminate on the basis of predictive profiles to urban surveillance technologies that target already-stigmatized neighborhoods, AI produces fractures that echo necropolitical logics, assigning differential value to lives and asymmetrically distributing the possibilities of security. Hui (2016) with his proposal of cosmotechnics, moves in a different yet complementary direction. Hui invites us to reject the universalist claim of a single, neutral technology, emphasizing instead how each civilization has elaborated its own relationship between technique and cosmology. Western modernity has imposed a specific model of techno-scientific rationality that tends to erase or subordinate other forms of technological thought. AI, in its global deployment, today appears as a vector of this universalization. Yet the perspective of cosmotechnics opens the possibility of conceiving a plurality of cosmotechnics: situated technological forms, rooted in different worldviews, capable of coexisting without being reduced to a single hierarchy. Here the fracture is not only diagnostic but also propositional: an invitation

to imagine technology not as a monolith but as a pluriversal field.

These theoretical tools allow us to illuminate highly concrete practices. In urban security, predictive algorithms promise to anticipate criminal behavior but end up consolidating geographies of suspicion that selectively target neighborhoods and communities already stigmatized. In climate governance, global predictive models operate with parameters devised in research centers of the Global North, neglecting local ecological knowledges that could enhance environmental resilience. Finally, in digital health, systems of epidemiological monitoring and prediction tend to privilege populations and contexts with consolidated data infrastructures, leaving in the shadows those areas where the absence of “clean” datasets becomes grounds for exclusion from risk maps and preventive interventions.

These fractured geographies of sense thus demonstrate that AI is not merely a technical infrastructure but a semantic machine that distributes visibility and invisibility, possibilities and denials, configuring new relations of power between center and periphery. This is no longer simply a matter of access or digital inequality but a reorganization of the very conditions of signification and collective life.

5. SITUATED ETHICS AND RESISTANCE

Intersectionality, understood both as a theory and as an analytical tool, teaches us that the social subject can never be reduced to an abstract individuality but is traversed by histories and processes that do not belong to it directly: technological progress, practices of health and well-being, conflicts over resources, digital communication, and surveillance. These elements are co-produced reciprocally, generating inequalities and specific life experiences within multiple social hierarchies. Today, the collapse of traditional dichotomies enables us to shift our gaze toward more osmotic and co-dependent horizons: it is no longer a matter of homogenizing the other, but of recognizing singularity, difference, and the axiological weight that each culture and society expresses. In this scenario, the classical notion of the “*value of homophily*” (Lazarsfeld, Merton, 1954) – the tendency to associate with those who resemble us – appears insufficient. The transformations induced by technique and technology lead us instead toward a condition that could be termed *technophilia*: the capacity to construct identities and communities out of physiological, cultural, and political mutations that intertwine the individual body and the social body within a technological continuum.

Drawing on Lazarsfeld and Merton's notion I propose the neologism *technomophilia*: I do not simply mean a technologically mediated form of human-human homophily, but a broader configuration in which humans also associate with algorithms that appear to "resemble" them. In a *technophilic* condition, subjects develop affective and cognitive attachments to algoagents that mirror their preferences, linguistic styles, and world-views, and that are continuously tuned on the basis of their data. Similarity is no longer only a precondition for social bonding; it is actively produced and reinforced by algorithmic systems that present themselves as familiar, responsive and attuned. *Technomophilia* thus names a trans-species form of homophily, in which humans and algorithms become mutually co-constituted partners in the organisation of identity, community and sense.

Here, commonality is no longer exclusive but can become profoundly generative, moving beyond the clash of cultures to inaugurate a plural narration of stories and a dialectics of knowledges. It is precisely on this terrain that the ethical question imposes itself: if our existence now manifests itself in forms that are naturally technological, ethics can no longer be universal and abstract. It must become situated and dialogical, capable of accommodating differences and of opening counter-spaces of resistance and co-construction together with the very algoagents that participate in the production of the social.

The notion of situated ethics stands in opposition to the idea of technical neutrality and underscores that every technology is inscribed within local practices, imaginaries, and values. An algorithm deployed in an African hospital, in a rural Indian school, or in a European court of law does not produce the same effects, for it encounters different material infrastructures, social institutions, and cosmologies.

It is from this perspective that we can imagine *algorithmic counter-spaces*: places where communities and algoagents co-produce alternative meanings, resisting standardization and experimenting with forms of creative hybridity. These counter-spaces are not necessarily separate from or antagonistic to global infrastructures; rather, they take shape as liminal zones in which different practices of meaning are negotiated. One example can be found in machine translation projects for Indigenous languages developed through participatory approaches: not merely technical applications, but occasions in which local communities redefine design priorities and shape algorithms in dialogue with their cultural traditions. Through a perspectival and epistemological shift, it becomes possible to generate and inhabit counter-spaces in which the particularities of multiple social and existential conditions can be explored, recovered,

and shared. Such spaces do not simply preserve difference but bring forth its transformative potential, to the point of becoming genuine instruments of resistance. As Medina (2013) argues, it is through social imagination that epistemic injustice can be resisted and new forms of collective recognition created. In this sense, narrative processes emerge as constitutive practices: it is through narration that knowledges and memories are articulated, relations between human and non-human entities are redefined, and the mutation of social institutions is initiated – an indispensable condition for the full recognition of communities and their particularities.

From this perspective, one could trace a genuine chronology of technoscientific innovations by taking as a point of reference the political and technical management of the body. On the one hand, the trajectory from necropolitics to biopolitics shows how bodies have been subjected to control, surveillance, and administration, following the genealogy that Preciado (2013) identifies as the *dispositif* for governing life and death. On the other hand, however, the same history can also be read as a field of resistance and emancipation: bodies are not merely passive receptors of technical power but centers of individuation capable of co-evolving with technologies and opening new possibilities for subjectivation. To this double reading we may add the imaginary with the notion of the cyborg (Kline, Clynes, 1960): a figure that, since the 1960s, projected a nomadic and hybrid identity – an organism technically modified to integrate artificial functions into its metabolism until becoming a complex homeostatic system. The cyborg, far from being merely a science-fictional creature, has become a symbol of a new biotechnological dimension, in which the boundaries between natural and artificial, human and machinic, biological and digital no longer appear as rigid dichotomies but as traversable gradients. In this genealogical reading, technoscience thus appears as an ambivalent field: both a *dispositif* of control and hierarchization of bodies, and at the same time an opportunity for resistance, invention, and the emergence of plural and transformative identities.

Possible forms of resistance take shape in multiple directions. Participatory design allows communities to be included in design processes, preventing systems from being imposed externally. Algorithmic commons – datasets, models, and tools developed under logics of the common good – offer alternatives to proprietary platforms, restoring control and transparency to those who use them. Finally, local platforms constitute concrete experiments of autonomy, capable of rooting AI in community practices and constructing technical architectures that are sensitive to context.

In such expansive frameworks, it becomes crucial to adopt perspectives that re-territorialize and re-differentiate the metaphors through which we think social and technoscientific relations. As Sandoval (2000) has shown, critique cannot remain limited to denouncing consolidated forms of power; it must also develop the capacity to transform its rhetorical and imaginative strategies, redefining the languages and symbols that articulate dynamics of oppression and resistance. Similarly, Harding (1991) calls for questioning the epistemic assumptions that underlie the production of science, demonstrating how every knowledge is situated and how it becomes necessary to change the very metaphors that define the fields of legitimacy of knowledge and power.

Following these directions, it becomes possible to elaborate a more holistic orientation, one capable of addressing unresolved social issues while at the same time exercising a critical theory of the technoscientific processes that shape and name our relations. The task is not only to analyze technology, but also to rethink the conceptual categories we use to describe it, so as not to remain trapped in metaphors that reproduce the very hierarchies we intend to critique. This perspective on resistance does not aim at rejecting technology, but at its critical reappropriation. AI thus becomes both a terrain of conflict and a space of imagination, a site in which to rethink the relationship between human and machinic in a dialogical and plural register. To speak of situated ethics is therefore to affirm the possibility of an AI that is not merely an infrastructure of domination, but also a device of emancipation, capable of opening counter-spaces where new forms of life, meaning, and justice can be negotiated.

6. REWRITING THE SOCIAL: A CLOSING REFLECTION

Cultural evolution feeds on innovation – whether arising from discoveries or technoscientific inventions – and from the combination of preexisting elements that, by coexisting, branch out into new sociocultural perspectives. Yet, as Ogburn (1964) demonstrated with the concept of cultural lag, the different planes of culture do not always advance in synchrony: material culture may progress more rapidly than immaterial culture, generating imbalances, dissonant narratives, and ethical tensions that can result in forms of social disorganization.

Today, technoscience is not only a driver of change but also its reflection and horizon: it operates as a material-discursive apparatus, simultaneously acting and reacting as both practical dispositif and discourse, con-

tributing to the constitution of mutating identities and corporealities. The existence of the subject, its relations, and the constitutive process of its being can no longer be read solely within the coordinates of biological naturalness: it now emerges as a biotechnological entity, unfolded across the nodes and networks of technoscience, where the distinction between human and technical does not mark a boundary but a continuous weave of co-evolution.

The metaphor of the *peripheral machine* has guided this inquiry as a critical lens capable of rendering visible the ambivalent nature of artificial intelligence. It has revealed itself not only as a technical device but as a political infrastructure operating through delegation, dispossession, and redistribution of power. AI captures, reworks, and re-injects into social circuits knowledges, practices, and grammars originating from the margins, transforming them into new semantics often produced elsewhere. In this movement, the peripheral machine does not merely reproduce logics of domination; it also places center and periphery in tension, generating fractures but also possibilities for reconfiguration. It is precisely within this space that the perspective of the algomorphic society takes root. To reduce algorithms to mere tools is to misconstrue their capacity to generate norms, imaginaries, and affects; recognizing them instead as algoagents makes it possible to grasp their full participation in the construction of the social. Algoagents are not mere technical intermediaries: they learn, co-produce meanings, modulate relationships, and shape forms of subjectivity. They are, in every respect, co-constructive actors, whose role requires a renegotiation of the classical categories of sociology, politics, and ethics.

From this awareness arises a broader challenge: to rethink both present and future through lenses of epistemic justice and plural imaginaries. Epistemic justice implies the recognition of situated knowledges, cultural differences, and marginalized forms of life, against the temptation of an algorithmic universalism that erases specificity. Plural imaginaries, in turn, represent the necessary horizon for thinking AI not as a monolithic destiny but as an open field of possibilities: a space where communities, institutions, and algoagents may co-exist dialogically, continuously negotiating the boundaries of what is livable and sayable.

As an epilogue, it is worth recalling a celebrated cartoon published in *The New Yorker* in 1993: a dog sitting at a computer turns to another and says, “On the Internet, nobody knows you’re a dog.” This image, which became iconic in digital culture, anticipated the problem of anonymity and online representation. Three decades later, we can read it as a broader metaphor for the

dynamics that characterize the algorithmic society: the possibility – but also the necessity – of concealing parts of one’s identity out of fear of exclusion or deviance, the play of masks and recognitions, the search for a “certification of acceptance” through the gaze of others. Here, intersectionality regains centrality: it reminds us that identities are never simple reflections of the offline, but the result of complex social negotiations, especially in digital space (Shaw, 2014). Platforms are indeed arenas of representation and interaction that amplify visibility and invisibility, offering opportunities for emancipation but also new forms of domination. As Wajcman (2004) emphasized, it is essential to read carefully the web of powers and inequalities that technology generates, in order to transform it into a terrain of resistance and emancipation.

In this perspective, the metaphor of the peripheral machine acquires an additional meaning: AI not only reorganizes flows of knowledge and power but also becomes the very space where identities, belongings, and possibilities of recognition are negotiated. Rethinking the present and future through epistemic justice and plural imaginaries also means paving the way for new practices of inclusion and for algomorphic counter-spaces, where communities and algoagents can co-construct identities founded not on the fear of deviance but on the possibility of a plural and nomadic commonality. Ultimately, the peripheral machine presents us with the image of a world in which power is no longer concentrated exclusively in human institutions but is distributed among hybrid actors, human and non-human alike, who together weave the social fabric. To accept this condition is not to renounce critique, but rather to relaunch it – transforming it into a collective exercise of resistance and imagination. Only in this way will it be possible to construct shared futures, not flattened by a single algorithmic logic but open to the plurality of worlds that inhabit, and will continue to inhabit, the algomorphic society.

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