

## COLONIALITY OF THE DIGITAL: EPISTEMIC INJUSTICE AND TECHNOLOGICAL POWER IN THE GLOBAL SOUTH

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### ABSTRACT

This paper argues that digital inequality in the Global South is not a technical deficit awaiting infrastructural remedy but a philosophically distinct form of injustice. Drawing on decolonial theory, epistemic justice scholarship, and philosophy of technology, the paper establishes that the global digital order reproduces colonial epistemic hierarchies through platform governance, algorithmic design, data extraction, and the structural dominance of Northern languages and knowledge frameworks. Deploying Fricker's (2007) theory of epistemic injustice alongside Couldry and Mejias' (2019) concept of data colonialism, the paper argues that digital inequality inflicts simultaneous testimonial and hermeneutical injustice on Global South communities. It proposes digital epistemic inclusion, algorithmic decolonization, and data sovereignty as normative principles for achieving technological justice, concluding that genuine digital justice demands not merely expanded connectivity but a fundamental decolonization of the epistemic architecture of the global digital order.

**Keywords:** Coloniality of the digital, Epistemic injustice, Technological power, Data colonialism, Global South, Decolonization.

### INTRODUCTION

The digital revolution has fundamentally reorganized the conditions under which knowledge is produced, distributed, validated, and consumed across the world. The dominant narrative accompanying this transformation is one of emancipatory promise: the internet as a great equalizer, dissolving barriers of geography, language, and social hierarchy that historically constrained access to knowledge and opportunity. This narrative is repeated consistently across international development policy documents, global technology corporation mission statements, and Northern government pronouncements advocating digital inclusion as the engine of Global South development. This paper argues it is a narrative that is philosophically fraudulent.

The fraudulence lies in the systematic misrepresentation of the digital order as a neutral technological infrastructure whose benefits are equitably available to all who can access it. This

misrepresentation reframes what is fundamentally a question of power as a merely technical question of connectivity, displacing philosophical and political critique with engineering solutions. The concept of the digital divide, dominant in policy and academic discourse since the late 1990s, is the most consequential expression of this misrepresentation. As Ragnedda and Mutsvairo (2018) argue, it reduces a structurally produced inequality to a binary gap between the connected and the unconnected, naturalizing Northern technological dominance and foreclosing the more fundamental question of whether the digital order itself is organized justly.

This paper proposes a philosophically sharper framework: the coloniality of the digital. Drawing on Quijano's (2000) concept of the coloniality of power and Mignolo's (2018) coloniality of knowledge, the paper argues that the global digital order constitutes a contemporary expression of colonial epistemic domination. The concentration of digital infrastructure, platform governance, artificial intelligence research, and data ownership in the Global North reproduces, at unprecedented scale and speed, the colonial hierarchy of knowledges that postcolonial scholarship has long analyzed and resisted. The philosophical framework deployed is Fricker's (2007) theory of epistemic injustice: the wrong done to a person specifically in their capacity as a knower. The paper argues that the global digital order inflicts testimonial injustice, in which Global South knowledge producers are assigned diminished credibility within digital platforms, and hermeneutical injustice, in which the conceptual frameworks organizing digital knowledge are built by and for Northern users, leaving Global South epistemic traditions without adequate digital representation.

## **PHILOSOPHICAL FOUNDATIONS: COLONIALITY OF POWER AND COLONIALITY OF KNOWLEDGE**

The foundational distinction from which this paper's argument proceeds is the distinction between colonialism and coloniality. Colonialism designates the political, economic, and military domination of non-European peoples by European powers from the fifteenth century onward. Coloniality designates something philosophically deeper and historically more enduring: the patterns of power, knowledge, and being that colonialism installed and that persist structurally long after the formal dismantling of colonial political arrangements. As Quijano (2000) argues, coloniality is the dark side of modernity, organized around a racial classification of humanity that positioned European peoples as the natural bearers of rationality, civilization, and legitimate knowledge. Mignolo (2018) elaborates the coloniality of knowledge: the systematic subordination of non-Western knowledge traditions to Western epistemology and the installation of a single European intellectual tradition as the universal standard. Ndlovu-Gatsheni (2020) demonstrates that this coloniality of knowledge manifests in contemporary African intellectual life as a structural epistemic dependency, an orientation of knowledge production toward Western validation that reproduces colonial hierarchies of epistemic authority under formally postcolonial institutional conditions.

## **EPISTEMIC INJUSTICE, DATA COLONIALISM, AND TECHNOLOGICAL POWER**

Fricker's (2007) theory of epistemic injustice provides the precise philosophical vocabulary for naming the wrong the digital order inflicts. Testimonial injustice occurs when a speaker receives deflated credibility owing to identity prejudice: when who someone is, rather than what they know, determines whether their knowledge claims are taken seriously. Hermeneutical injustice occurs when a gap in collective interpretive resources puts someone at an unfair disadvantage in making sense of their own social experience. Dotson (2012) extends this framework by introducing contributory injustice: the active and persistent contribution to hermeneutical marginalization through deliberate refusal to engage with alternative epistemic frameworks, directly applicable to technology corporations that systematically exclude Global South epistemic traditions from platform architecture. Couldry and Mejias' (2019) concept of data colonialism adds a material dimension: the appropriation of human life through data as a new form of colonial extraction. Just as colonial powers extracted raw materials from colonized territories, digital capitalism extracts raw data from Global South populations for monetization and knowledge production in Northern technology corporations. Kwet (2019) sharpens this through digital imperialism, that is, the domination of Global South digital ecosystems by Northern corporations whose control of hardware, software, and cloud computing reproduces imperial patterns of epistemic dependency.

## **THE COLONIAL ARCHITECTURE OF THE DIGITAL ORDER**

The argument that the global digital order reproduces colonial patterns of power and knowledge is not a metaphor. It is a precise structural claim substantiated by the concrete institutional arrangements through which digital infrastructure is owned, digital knowledge is governed, and digital value is extracted globally. The physical infrastructure of the global internet, including undersea fiber optic cables, data centers, satellite systems, and server farms, is concentrated in the Global North. As Kwet (2019) demonstrates, the routing architecture of global internet traffic is organized around Northern hubs in ways that ensure Global South nations remain structurally peripheral, dependent on Northern infrastructure for connectivity even with neighboring countries. This is not a residual inefficiency but a deliberate architectural consequence of the political economy of digital capitalism.

The governance of the global internet reproduces this structural peripherality at the institutional level. Bodies such as the Internet Corporation for Assigned Names and Numbers and the World Wide Web Consortium exercise decisive authority over domain name allocation and web standards while remaining persistently dominated by Northern states, corporations, and technical experts. The rules and norms governing digital space are generated overwhelmingly by Northern actors whose interests and epistemic assumptions shape the architecture of the internet in ways presented as technical necessities but which are in fact political choices. The economic relationship between Global North technology corporations and Global South populations follows an extractive logic that Couldry and Mejias (2019) identify as structurally continuous with historical colonialism. Global South populations generate vast quantities of behavioral data through engagement with Northern digital platforms, yet capture none of the economic value that data produces. The dominance of English in the global digital knowledge ecosystem is the most visible epistemic expression of this structure. Knowledge traditions embedded in Yoruba, Swahili, Hindi, Arabic,

or any of the thousands of languages spoken predominantly in the Global South are not merely underrepresented; they are structurally inarticulable within this system, a condition Ndlovu-Gatsheni (2020) identifies as the most consequential contemporary expression of epistemic coloniality.

## TESTIMONIAL AND HERMENEUTICAL INJUSTICE IN DIGITAL SPACE

Testimonial injustice in the digital world operates through the algorithmic systems that assign credibility, authority, and visibility to knowledge claims at planetary scale. Search engine algorithms are built around metrics of authority that systematically advantage Northern knowledge producers. Academic citation databases are dominated by Northern journals, authors, and institutional affiliations in ways that reproduce colonial patterns of epistemic authority within the very infrastructure of global knowledge validation. This algorithmic testimonial injustice is compounded by content moderation practices that apply stricter scrutiny to content produced by Global South communities, particularly content challenging Northern political, economic, or epistemic authority, resulting in a digital public sphere in which Global South knowledge producers face qualitative epistemic dismissal alongside quantitative disadvantage in visibility.

Hermeneutical injustice concerns the capacity of Global South communities to articulate their epistemic traditions within digital space at all. The problem is not merely that Global South communities lack access to digital tools but that the digital tools available to them are conceptually inadequate to their epistemic heritage. Prinsloo (2023) argues that this hermeneutical inadequacy produces epistemic displacement: a condition in which Global South communities must translate their knowledge traditions into Northern conceptual categories as a precondition of digital participation, losing in the translation precisely those dimensions of their epistemic heritage most irreducible to Western frameworks.

## ALGORITHMIC INJUSTICE AND THE AUTOMATION OF EPISTEMIC EXCLUSION

The most philosophically urgent dimension of epistemic injustice in the digital order is the role of artificial intelligence in automating and entrenching both forms of injustice identified above. As Mohamed, Png, and Isaac (2020) argue, AI systems are political artifacts whose design choices, training data, and deployment contexts encode the values, assumptions, and epistemic commitments of their creators. Birhane (2021) demonstrates that large language models are trained predominantly on English-language, Northern-generated text corpora that systematically underrepresent Global South languages, cultures, and epistemic traditions, actively encoding stereotypes and colonial epistemic assumptions derived from biased training data. Benjamin (2019) introduces the concept of the new Jim Code: the embedding of racist and colonial assumptions into digital systems in ways that render them invisible and resistant to critique precisely because they are encoded in the apparently neutral language of algorithms and data. Mills' (2007) epistemology of ignorance provides the final philosophical key: the algorithmic systems governing digital knowledge are not merely ignorant of Global South realities but are

organized not to know them, structured expressions of a motivated epistemic orientation that serves Northern technological power.

## TOWARD TECHNOLOGICAL SOVEREIGNTY: PRINCIPLES FOR EPISTEMIC JUSTICE

The analysis developed in the preceding sections establishes that the global digital order inflicts a structurally produced and historically rooted epistemic injustice on communities of the Global South. The normative task that remains is to articulate what epistemic justice demands. This section advances technological sovereignty as the governing normative goal, that is, the right and capacity of Global South communities to govern their own digital futures, produce their own digital knowledge on their own epistemic terms, and participate as equal agents in the governance of the global digital order. Three philosophical principles constitute its dimensions.

The first principle is **digital epistemic inclusion**: the systematic integration of Global South languages, knowledge systems, and epistemic traditions into the architecture of digital platforms, AI training datasets, internet governance frameworks, and global knowledge infrastructures. Ricaurte (2022) argues that genuine epistemic inclusion demands a fundamental reconceptualization of what counts as authoritative digital knowledge, one that abandons the colonial assumption that Northern knowledge frameworks constitute the universal standard. The philosophical foundation of this principle is Santos' (2016) ecology of knowledges: the recognition of multiple valid knowledge systems coexisting without hierarchy, each evaluated according to criteria of validity developed from within its own epistemic commitments. Applied to the digital domain, this demands that the conceptual architectures of digital platforms be fundamentally reconceived to accommodate the full diversity of human epistemic traditions.

The second principle is **algorithmic decolonization**: the systematic audit, reform, and where necessary replacement of artificial intelligence systems deployed in and affecting Global South communities, eliminating the colonial epistemic biases embedded in their design, training data, and performance metrics. Abebe et al. (2021) argue that the most consequential form of algorithmic colonial bias is paradigmatic colonialism: the embedding of Northern assumptions about what problems AI should solve so deeply into the foundational architecture of AI development that they present themselves as natural and universal rather than historically contingent. Genuine algorithmic decolonization requires Global South communities to develop their own AI research agendas and epistemic criteria for evaluating AI performance, not as adaptations of Northern paradigms but as genuinely alternative approaches rooted in Global South epistemic traditions.

The third principle is **data sovereignty**: the right of Global South communities to own, govern, and benefit from data generated from their populations, reversing the extractive logic of data colonialism. Kukutai and Taylor (2016) establish that data sovereignty is not merely a technical or legal question about data ownership but a philosophical question about epistemic self-determination: the right of communities to control knowledge generated from their own lives and deploy it in service of their own epistemic and political priorities rather than those of external corporations and states. Data sovereignty is therefore not a defensive response to data colonialism

but a positive philosophical proposal for an alternative digital knowledge order in which Global South communities participate not as data sources but as epistemic agents with genuine authority over knowledge generated from their own social realities. Any philosophically honest account of technological sovereignty must acknowledge formidable structural obstacles. The technology corporations dominating global digital infrastructure command financial resources exceeding the GDP of most Global South nations. Yet as Mignolo (2018) insists, epistemic disobedience, the active refusal of Global South epistemic communities to accept Northern knowledge frameworks as the universal conditions of legitimate intellectual life, is itself a form of political action that does not wait for the structural transformation of global capitalism before asserting epistemic dignity and intellectual sovereignty.

## CONCLUSION

This paper has established with philosophical precision that the global digital order inflicts a structurally produced and historically rooted epistemic injustice on communities of the Global South. The distinction between colonialism and coloniality established that the epistemic injustices of the digital order are not residual inefficiencies but the contemporary expressions of a colonial epistemic logic that has never been genuinely dismantled. Fricker's (2007) framework named what this colonial logic does to Global South communities in digital space: deflating their epistemic credibility, foreclosing the articulability of their knowledge traditions, and systematically excluding them from the interpretive resources necessary to make their own epistemic heritage intelligible. Couldry and Mejias' (2019) data colonialism and Kwet's (2019) digital imperialism established that this epistemic wrong has a concrete material infrastructure through which Northern technological power extracts value from Global South populations while denying them the epistemic and economic benefits of knowledge generated from their own lives. The analysis of artificial intelligence revealed that AI systems encode colonial epistemic hierarchies in the apparently neutral language of data and algorithms, making them simultaneously more pervasive and more resistant to critique than any previous form of epistemic domination.

Against this condition, the paper advanced three philosophical principles: digital epistemic inclusion rooted in Santos' (2016) ecology of knowledges, algorithmic decolonization drawing on Abebe et al. (2021), and data sovereignty established by Kukutai and Taylor (2016). Together, these principles constitute a philosophically grounded framework for achieving genuine technological sovereignty. The broader significance of this argument extends beyond digital technology: epistemic justice must be recognized as a distinct and irreducible dimension of global justice, one that cannot be addressed through redistribution alone but requires the structural transformation of the global knowledge order. The coloniality of the digital was built deliberately by identifiable actors pursuing identifiable interests. The architecture of the global digital order is still being constructed, in the AI research laboratories opening in Lagos, Nairobi, and Accra, in the data governance frameworks being negotiated in international forums, and in the philosophical arguments being developed by Global South scholars who refuse to accept that the epistemic terms of the digital age have already been settled. That refusal, the demand for justice, is the most philosophically serious and politically consequential act available to those who believe that the digital world can and must be made more just than it currently is. The coloniality of the digital is real. So is the possibility of its undoing.

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