

# Data Colonialism and Power Structures in Global Digital Economies

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## Abstract

**Purpose:** This article critically examines the concept of data colonialism as a structural manifestation of power in the global digital economy. It interrogates how digital platforms, data extraction practices, and algorithmic governance reproduce and expand colonial power relations under contemporary capitalism, particularly across global North–South divides.

**Design/Methodology:** Using a qualitative doctrinal methodology, the study conducts a deep theoretical and critical analysis of existing academic literature, policy reports, and decolonial frameworks to synthesize a refined understanding of data colonialism. The focus is not empirical data collection but rigorous conceptual interrogation informed by critical theory, political economy, and postcolonial scholarship.

**Findings:** The analysis reveals that contemporary digital infrastructures and data governance regimes operate as instruments of neo-colonial accumulation, perpetuating asymmetries in economic power, knowledge production, and political sovereignty. Big Tech’s control over data flows, digital labor, and platform value extraction reproduces forms of structural domination that mirror historical colonialism while generating novel dependencies in digital economies. Decolonial perspectives further illuminate how claims to data sovereignty are constrained by global power imbalances and necessitate alternative ethical frameworks.

**Originality/Value:** This article advances data colonialism research by integrating critical insights from decolonial theory, digital political economy, and regional case studies, challenging dominant narratives that equate digital development with empowerment. It foregrounds the need to reconceptualize data governance beyond extraction and regulatory amelioration toward systemic power redistribution.

**Keywords:** data colonialism, digital economy, global power structures, digital political economy, decolonial theory, data governance.

## 1. Introduction

Contemporary digital economies are built upon vast infrastructures of data collection, processing, and monetization. From social media platforms to cloud computing and predictive algorithms, data has become central to value creation and economic power. Yet beneath the celebratory rhetoric of digital innovation and empowerment lies a more troubling dynamic: the reproduction of deeply entrenched power structures reminiscent of colonial relations. This phenomenon, increasingly theorized as data colonialism, suggests that the extraction, control, and commodification of data by dominant global actors function as a new form of colonial power, reshaping social, economic, and political life on a planetary scale (Couldry & Mejias, 2019; Couldry & Mejias, 2020). Data colonialism, as conceptualized by critical scholars, posits that data extraction operates analogously to historical colonial extraction of land and labor, but in the context of digital infrastructures and algorithmic systems (Couldry & Mejias, 2019; Mejias & Couldry, 2024). This captures how platforms do not merely harvest user data as a by-product of service delivery but actively appropriate behaviors, relationships, and life processes into digital commodities. The result is a form of structural domination wherein powerful technology firms often based in the global North accumulate economic and epistemic power while shaping the conditions of social reproduction for users and societies globally. This study asks: How do data extraction practices reinforce global power asymmetries? And further: In what ways do digital governance regimes replicate or transform colonial logics under the guise of efficiency, innovation, or connectivity? These questions are not merely empirical but demand deep theoretical critique. Traditional frameworks in digital policy often frame data governance in terms of privacy, market competition, or technical standards, failing to address the political economy and historical legacies embedded in global data flows. By contrast, a data colonialism lens foregrounds how digital systems are implicated in broader structures of power that transcend regulation and permeate economic and cultural life. The urgency of this inquiry is unmistakable. As global debates rage over data sovereignty, artificial intelligence governance, and platform regulation, dominant solutions tend to privilege technological fixes, competitive market reforms, or narrow privacy protections. However, such approaches risk treating symptoms while leaving underlying structures unchallenged. The dominance

of a handful of multinational corporations in data markets not only concentrates wealth but also shapes knowledge production, cultural representation, and political discourse at scale (Jin, 2015; Coleman, 2019). Furthermore, the uneven distribution of digital infrastructure and regulatory capabilities across regions amplifies inequalities between global North and South, raising critical questions about agency, autonomy, and justice in the digital age (Arewa, 2021; Effoduh, 2025).

In examining these dynamics, this article situates data colonialism within a broader genealogy of extractive power, drawing on political economy, postcolonial thought, and decolonial critique. This involves engaging with key concepts such as digital imperialism, platform capitalism, and data sovereignty debates to articulate a comprehensive critique of how contemporary digital structures reproduce historical logics of domination (Couldry & Mejias, 2020; Nothias, 2025; Kwet, 2019). It also means questioning assumptions that datafication inherently leads to democratization or empowerment, instead revealing how such processes can entrench new dependencies and asymmetries.

## **2. Literature Review**

The concept of data colonialism has emerged as a critical lens for understanding contemporary global digital economies, framing the collection, commodification, and governance of data as a structural extension of historical colonial logics (Couldry & Mejias, 2019; Couldry & Mejias, 2020). Unlike traditional understandings of colonialism, which focused on the appropriation of land and labor, data colonialism operates primarily through the extraction of behavioral, social, and economic information from digital subjects, which is then monetized by dominant platform corporations. This process reflects a reconfiguration of global power, wherein data becomes the central resource driving economic accumulation and shaping societal control (Mejias & Couldry, 2024; Jin, 2015).

A core tenet of the literature is that digital platforms act as modern colonial intermediaries, controlling not only the flow of information but also the social conditions under which it is produced and consumed. Couldry and Mejias (2019) argue that the digital economy is predicated on the appropriation of everyday life itself, with human behavior being converted into data commodities. This notion aligns

with Kwet's (2019) critique that platform capitalism enforces systemic dependence, where users, organizations, and even states are caught in asymmetrical relations with corporate actors who dominate data infrastructure and algorithmic decision-making.

The implications of data colonialism are especially pronounced in the global South, where digital dependency often mirrors historical patterns of economic subordination. Coleman (2019) emphasizes that African countries, despite generating large volumes of user data, retain minimal control over its economic and strategic value, with much of it flowing to corporations headquartered in the global North. Effoduh (2025) extends this argument by highlighting the role of local intermediaries who, while appearing to facilitate digital development, effectively reinforce existing asymmetries, acting as conduits for data extraction rather than as agents of autonomy. Similarly, Arewa (2021) underscores that digital infrastructure, regulatory capacity, and institutional frameworks in many postcolonial states remain inadequate to resist the structural pressures of data extraction, thus entrenching dependency.

Critical scholarship has also interrogated the ethical and epistemic dimensions of data colonialism. Roberts and Montoya (2023) contend that the extraction of data from marginalized communities without meaningful control over its use constitutes a violation of epistemic sovereignty, reproducing forms of knowledge asymmetry reminiscent of colonial knowledge systems. Barrett et al. (2025) expand this argument within an African context, emphasizing the necessity of ethical frameworks that respect local norms, values, and collective rights to data. Mollema (2024) further critiques the techno-optimistic narratives that underpin artificial intelligence development, arguing that without critical intervention, AI systems may perpetuate colonial hierarchies under the guise of innovation and efficiency.

Data colonialism intersects fundamentally with the political economy of digital capitalism. Couldry and Mejias (2020) highlight that value creation in the platform economy relies not merely on data collection but on the capacity to convert human behavior into actionable insights for monetization, predictive modeling, and behavioral influence. This process parallels historical extractive economies, where resource control determined the capacity for social and political dominance. Nothias (2025) situates this dynamic within a broader intellectual genealogy, tracing contemporary forms of digital extraction to earlier structures of imperial knowledge

production, while Jin (2015) situates it within global digital infrastructure, noting that the architecture of platforms is designed to maximize asymmetrical power relations. The literature also reveals strategies of resistance and emerging governance frameworks. Kwet (2019) and UNESCO (2024) discuss initiatives aimed at reasserting data sovereignty, such as national data protection regimes, regional digital infrastructure development, and collective governance frameworks. However, the efficacy of these measures is often limited by global economic hierarchies, technological dependencies, and the concentrated control of multinational technology corporations. Network Cultures (2023) advocates for a critical reconceptualization of data ethics, emphasizing collective, community-based approaches that challenge the unilateral control of data by commercial actors.

Collectively, these studies illustrate that data colonialism is both a conceptual and practical phenomenon, requiring multidimensional critique that spans political economy, ethics, decolonial theory, and digital governance. Key themes emerging from the literature include the structural asymmetry between data-producing populations and corporate data extractors, the reproduction of historical colonial hierarchies in digital form, and the contested terrain of data sovereignty and ethical governance (Mejias & Couldry, 2024; Effoduh, 2025; Roberts & Montoya, 2023). These insights provide the foundation for understanding the mechanisms through which digital power is consolidated and reproduced, guiding subsequent analysis in this study.

### **3. Methodology**

This study employs a qualitative doctrinal methodology, focusing on the critical analysis of existing scholarly literature, policy documents, and theoretical frameworks to investigate the structural dimensions of data colonialism within global digital economies. The doctrinal approach is appropriate because the research objective is not to collect empirical primary data but to conduct a rigorous conceptual interrogation of existing knowledge, synthesizing insights from critical theory, political economy, and postcolonial scholarship. This method allows for a deep engagement with abstract mechanisms of power, extraction, and governance that underpin data colonialism,

rather than limiting analysis to surface-level descriptions or case-specific empirical trends (Couldry & Mejias, 2020; Mejias & Couldry, 2024).

The research design follows a systematic literature review framework combined with critical synthesis. The selection criteria for sources were based on relevance, scholarly credibility, and conceptual richness. Peer-reviewed journal articles, academic monographs, and authoritative policy reports were included to capture both theoretical rigor and applied insights. The 15 foundational sources identified (Couldry & Mejias, 2019; Mejias & Couldry, 2024; Effoduh, 2025; Coleman, 2019; Barrett et al., 2025; Roberts & Montoya, 2023; Jin, 2015; Arewa, 2021; Nothias, 2025; Kwet, 2019; Mollema, 2024; UNESCO, 2024; Network Cultures, 2023) formed the core analytical corpus.

Data extraction followed a conceptual coding strategy, identifying recurring themes related to:

- Mechanisms of data extraction and monetization.
- Structural asymmetries between global North and South actors.
- Ethical and epistemic implications of data appropriation.
- Governance frameworks and resistance strategies.

The analytical approach is critical-theoretical, employing tools from decolonial theory, digital political economy, and platform studies to interrogate not only what practices occur in the digital economy but also the underlying power relations that enable them (Couldry & Mejias, 2019; Roberts & Montoya, 2023; Barrett et al., 2025). The doctrinal methodology emphasizes interpretive depth, enabling the study to explore questions of systemic domination, dependency, and agency in ways that quantitative or superficial descriptive methods cannot. Limitations of this methodology are acknowledged. While the doctrinal approach provides rich conceptual insights, it does not generate primary empirical data. The findings are therefore interpretive rather than statistically generalizable. However, this limitation is offset by the ability to critically analyze multi-scalar structures of power and the systemic implications of digital data governance across diverse geopolitical contexts.

#### **4. Results**

Analysis of the doctrinal literature reveals several interlocking mechanisms through which data colonialism is operationalized in global digital economies. First, data

extraction as structural control is central. Platforms such as social media networks, cloud service providers, and e-commerce ecosystems actively harvest behavioral, economic, and social data to generate predictive insights, monetize user activity, and reinforce economic power asymmetries (Couldry & Mejias, 2019; Jin, 2015). This extraction occurs under the guise of connectivity and service provision but functions to consolidate control over both digital infrastructure and socio-economic value chains. Second, the literature highlights global asymmetries in data flows and control. Users in the global South contribute disproportionately to the generation of data but derive minimal economic or strategic benefit. Coleman (2019) and Effoduh (2025) demonstrate that African states, despite high volumes of digital participation, are constrained by limited infrastructure and regulatory capacity, resulting in dependence on Northern-based platforms. These asymmetries replicate and extend historical patterns of colonial domination, transforming them into digital forms where data and algorithmic control are the primary instruments of power. Third, ethical and epistemic dimensions are central to understanding the consequences of data colonialism. Roberts and Montoya (2023) argue that marginalized communities experience not only material extraction but also epistemic disenfranchisement, as their behaviors and cultural practices are interpreted, commodified, and reframed by distant corporate actors without local oversight or consent. Barrett et al. (2025) emphasize that ethical frameworks for data governance are often shaped externally, undermining community agency and perpetuating dependency in knowledge production.

Fourth, governance frameworks and resistance strategies emerge as a key theme. UNESCO (2024), Network Cultures (2023), and Kwet (2019) note attempts to establish regional and national data sovereignty policies, ethical AI guidelines, and collective governance structures. While these measures indicate a recognition of data colonialism's systemic risks, the literature consistently identifies limitations imposed by global power hierarchies and technological dependency, which constrain the effectiveness of localized interventions.

Finally, platform architecture and algorithmic control serve as instruments of domination. Jin (2015) and Couldry and Mejias (2020) describe how the design of digital platforms embeds asymmetrical power into code, interface, and governance structures, shaping user behavior, market outcomes, and knowledge flows. These

mechanisms function analogously to colonial administrative systems: centralizing authority, controlling resource allocation, and dictating terms of participation while presenting an appearance of neutrality and efficiency.

Thus, the results indicate that data colonialism operates through a combination of structural extraction, epistemic control, infrastructural asymmetry, and limited governance interventions. The literature consistently underscores that digital power is concentrated in the hands of a few multinational actors, generating dependencies and constraints for states, communities, and individual users, particularly in historically marginalized regions. These findings establish the foundation for a critical discussion of the implications of data colonialism for justice, governance, and digital sovereignty.

## **5. Discussion**

The analysis reveals that data colonialism constitutes a contemporary mode of structural domination, extending historical colonial power dynamics into the digital realm. Digital platforms, through the extraction and commodification of data, exercise both economic and epistemic control over populations, particularly in the global South (Couldry & Mejias, 2019; Coleman, 2019). The parallels with classical colonialism are striking: data extraction mirrors resource extraction, algorithmic control mirrors administrative oversight, and platform monopolies mirror imperial dominance. Yet, unlike historical colonialism, the mechanisms are often obscured behind narratives of digital empowerment, innovation, and connectivity, masking the systemic dependencies and inequities embedded within global digital economies (Mejias & Couldry, 2024; Jin, 2015). A key insight from the literature is the asymmetry in global data flows. While communities in the global South generate vast amounts of digital data, they rarely retain control over its value or governance (Effoduh, 2025; Arewa, 2021). This produces a form of dependency in which local development, knowledge production, and political agency are constrained by distant corporate actors. The structural dependency extends beyond economics into epistemic realms, as communities lose the capacity to define how their social and cultural practices are interpreted and monetized (Roberts & Montoya, 2023; Barrett et al., 2025). These asymmetries reinforce inequalities, creating digital hierarchies that

parallel but also diverge from historical colonial relationships, emphasizing control over information rather than territorial possession.

The discussion also highlights limitations of existing governance frameworks. Although national and regional initiatives, such as data protection laws and AI ethics guidelines, are emerging, they remain largely reactive and constrained by global technological and economic hierarchies (UNESCO, 2024; Kwet, 2019; Network Cultures, 2023). Regulatory interventions often fail to address the deeper structural problem: the centralization of control in a handful of multinational corporations whose infrastructural, algorithmic, and economic dominance cannot be remedied by piecemeal legislation alone. Therefore, meaningful intervention requires systemic reform that reconceptualizes sovereignty, economic benefit, and knowledge control in digital contexts.

Another critical observation concerns the ethical and epistemic dimensions of digital extraction. Data colonialism does not merely extract economic value but shapes the production of knowledge, influencing cultural representation, social norms, and political discourse (Roberts & Montoya, 2023; Barrett et al., 2025). This epistemic dimension is particularly salient in contexts where communities lack both technological infrastructure and decision-making authority, creating asymmetries that extend beyond material dependency into cognitive and cultural domains.

Finally, the discussion underscores the interconnectedness of platform architecture, algorithmic governance, and structural power. Platform design encodes asymmetries into technological systems, determining what is visible, what is prioritized, and how value is distributed (Jin, 2015; Couldry & Mejias, 2020). These embedded power structures reinforce dependencies and limit local agency, demonstrating that data colonialism operates simultaneously as an economic, political, and epistemic phenomenon.

## **6. Conclusion**

This study demonstrates that data colonialism represents a critical framework for understanding contemporary global digital economies. It highlights how Big Tech platforms consolidate economic power, shape knowledge production, and enforce asymmetrical relationships between global North and South actors. By treating data as

a resource for extraction rather than a public good, these corporations reproduce structural inequalities reminiscent of historical colonialism, while introducing novel dependencies in digital contexts. The findings suggest that addressing data colonialism requires more than technical or regulatory solutions. While national data protection laws, AI ethics frameworks, and regional governance initiatives are necessary, they are insufficient in the face of global power asymmetries. True decolonial intervention requires systemic rethinking: reimagining economic value distribution, data sovereignty, and community control over information. Decolonial approaches to digital governance, including ethical frameworks that foreground local knowledge, collective rights, and community agency, are essential to mitigate structural dependency and epistemic domination (Barrett et al., 2025; Roberts & Montoya, 2023). Thus, data colonialism is a multidimensional phenomenon—economic, epistemic, and infrastructural that shapes global digital relations. Recognizing and addressing its mechanisms is crucial for equitable digital development, sustainable governance, and the empowerment of historically marginalized populations. Future research should further explore practical models for digital sovereignty, algorithmic accountability, and community-centered data governance, offering pathways toward a more just digital economy.

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