FROM TERRITORIAL TO DIGITAL CONTROL: TRIBAL SELF-GOVERNANCE UNDER THE INDIAN CONSTITUTIONAL FRAMEWORK

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ABSTRACT

The constitutional provisions under the Fifth and Sixth Schedules, alongside Article 244 and legislations such as the *Panchayats (Extension to the Scheduled Areas) Act, 1996* (PESA) and the *Forest Rights Act, 2006* (FRA), create a distinct governance architecture for India's tribal regions. Central to this model are the principles of *community consent*, *territorial autonomy*, and *participatory self-rule*. However, the rapid expansion of digital governance mechanisms—such as Aadhaar-based welfare delivery, GIS-enabled land mapping, and algorithmic decision systems—has begun to alter the tribal-state interface. This paper explores how such digital infrastructures, while heralded as inclusive and efficient, tend to re-centralize authority, weaken *Gram Sabha* autonomy, and undermine the constitutional vision of self-governance. Drawing upon constitutional jurisprudence, particularly *Justice K.S. Puttaswamy v. Union of India* (2017), and frameworks of Indigenous data sovereignty, the paper proposes a redefinition of tribal self-determination that includes informational liberty. It argues for the institutionalization of *digital Free, Prior, and Informed Consent (FPIC)* and community-driven data governance models in Scheduled Areas. Ultimately, it contends that the discourse on tribal justice must evolve from territorial control to digital sovereignty, ensuring that technological modernization does not erode the spirit of constitutional self-rule.

Keywords: Tribal Autonomy, Digital Governance, Informational Self-Determination, Scheduled Areas, Data Sovereignty.

1. Introduction

India's constitutional imagination rests upon the coexistence of unity and diversity an equilibrium that finds its most vivid expression in the governance of tribal regions. The framers of the Constitution recognized that the socio-political realities of *Adivasi* communities, rooted in collective ownership and ecological stewardship, were fundamentally different from those of the mainstream polity. Consequently, the Fifth and Sixth Schedules of the Constitution, read with Articles 244 and 275, were crafted to protect these distinctions by enabling self-governance, territorial autonomy, and participatory decision-making. As Dr. B.R. Ambedkar observed in the Constituent Assembly, this differential treatment was not a token of isolation but an *affirmation of justice through respect for difference*.

Over the decades, legislative interventions such as the *Panchayats (Extension to the Scheduled Areas) Act, 1996* (PESA) and the *Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006* (FRA) deepened this constitutional promise. Together, these frameworks carved a distinctive model of tribal federalism, where the *Gram Sabha* became the nucleus of governance, embodying the values of consent, transparency, and local participation. The governance structure in Scheduled Areas was thus designed not as a replication of state machinery, but as its constitutional counterweight a means by which tribal communities could determine the course of their economic and developmental futures within their own normative systems.

In recent years, however, the accelerating tide of digital governance has introduced an uncharted dimension into this delicate balance. Initiatives such as the Aadhaar identity infrastructure, GIS-based land mapping, and technology-driven welfare delivery systems have redefined the interface between the State and citizen. These systems, while ostensibly promoting inclusion and administrative efficiency, are underpinned by data centralization and algorithmic control, which often bypass local consent processes institutionalized under PESA and FRA. The emerging pattern reflects not participatory governance but a return to bureaucratic centralization now mediated by technology rather than colonial administration.

The shift from territorial to digital control presents a fundamental constitutional question: Can the promise of self-governance survive in a digitally networked State? For tribal communities, autonomy is not merely geographic it encompasses the freedom to govern their resources, identity, and knowledge systems. In an age where governance increasingly depends on

informational infrastructure, the ability to control community data and consent to its use becomes an extension of the right to self-determination.

This paper interrogates how digital governance, through its centralized architecture, inadvertently undermines the constitutional guarantees of tribal autonomy. It critically examines the tension between the State's techno-administrative rationalities and the constitutional ethos of participatory self-rule. Building upon privacy jurisprudence such as *Justice K.S. Puttaswamy (Retd.) v. Union of India* (2017), and global Indigenous data sovereignty frameworks articulated under the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), the study argues for expanding the meaning of self-rule to encompass informational liberty.

The paper proceeds to analyse the constitutional and legislative context of tribal self-governance, explore case studies from Jharkhand and Chhattisgarh that demonstrate the real-world consequences of digital interventions, and propose a re-imagination of governance frameworks through the lens of digital Free, Prior, and Informed Consent (FPIC) and community-based data stewardship. The ultimate objective is to re-situate tribal justice in the twenty-first century transitioning from the language of territorial sovereignty to one of data sovereignty, without diluting the spirit of the Indian Constitution.

2. The Constitutional Vision: Tribal Self-Governance and Autonomy

The Indian Constitution envisions a federal structure that values diversity within unity, especially in its treatment of tribal societies. The framers recognized that governance models designed for the general population could not simply be replicated in areas inhabited by Indigenous communities with distinct social, cultural, and political institutions. Hence, Articles 244 and 275, along with the Fifth and Sixth Schedules, embody a conscious commitment to *asymmetric federalism*—a framework that acknowledges difference as a constitutional value rather than a deviation from it (Austin, 1999). These provisions not only safeguard tribal identity but also operationalize the right to self-governance within the broader democratic order.

2.1. The Fifth and Sixth Schedules: A Federated Pluralism

Article 244(1) of the Indian Constitution provides that the provisions of the Fifth

Schedule shall apply to the administration and control of *Scheduled Areas* and *Scheduled Tribes* in states other than those in the northeast. The Fifth Schedule governs regions such as Jharkhand, Chhattisgarh, Odisha, and Madhya Pradesh, where tribal and non-tribal populations often coexist. It establishes Tribes Advisory Councils (TACs) in each state, mandated to advise the Governor on matters concerning the welfare and development of Scheduled Tribes (PolSci Institute, 2025).

Despite this constitutional design, TACs have historically struggled to exert legislative authority because their recommendations remain advisory, not binding. The Governor is theoretically empowered under Paragraph 5(1) of the Schedule to make regulations for the "peace and good government" of Scheduled Areas—including provisions regulating land transfers and money-lending—but this power is rarely exercised independently (Ramanathan, 2006). Consequently, while the Fifth Schedule model provides constitutional recognition of tribal distinctiveness, its implementation has been limited by administrative centralization and lack of political will. Scholars often describe it as a "protective" rather than an "empowering" mechanism (Xaxa, 2003).

In contrast, the Sixth Schedule, applicable to Assam, Meghalaya, Tripura, and Mizoram, offers more robust institutional autonomy. Derived from Article 244(2), it creates Autonomous District Councils (ADCs) and Regional Councils endowed with legislative, executive, and limited judicial powers. These councils regulate land tenure, forest use, inheritance, village administration, and money-lending practices (Sinha & Lyngdoh, 2025). The Sixth Schedule's framework evolved from the recommendations of the Bordoloi Committee (1947), which emphasized the region's distinct socio-political systems and the need to protect them within the constitutional union.

Scholars regard the Sixth Schedule as a pioneering experiment in federal pluralism, institutionalizing polycentric governance within a single constitutional order (Guha Sinha & Lyngdoh, 2025). The structure reconciles customary governance with the principles of modern democracy—acknowledging the coexistence of *traditional institutions* and *constitutional institutions*. Together, the Fifth and Sixth Schedules illustrate India's unique model of differentiated federalism, where constitutionalism accommodates diversity as a cornerstone of justice rather than as an exception to it.

Yet, the two models diverge in practice. While the Sixth Schedule provides operational

autonomy through directly elected councils, the Fifth Schedule remains largely dependent on state governments for policy enactment and implementation. This asymmetry has profound implications for the realization of tribal self-rule and is further challenged by the advent of digital governance frameworks that recentralize administrative power.

2.2. PESA and FRA: Deepening the Mandate of Self-Rule

The Panchayats (Extension to the Scheduled Areas) Act, 1996 (PESA) was enacted to actualize the constitutional promise of self-governance in Fifth Schedule Areas. It extends the provisions of the 73rd Amendment to tribal regions with necessary modifications to respect traditional governance patterns. PESA empowers *Gram Sabhas* (village assemblies) to plan and manage local development programs, adjudicate community disputes, and exercise prior consent before land acquisition or industrial activity (Ministry of Panchayati Raj, 2020). The Act's core philosophy lies in its reaffirmation that community consent and participatory governance are central to any legitimate intervention in tribal territories (Bandi, 2019).

Under Section 4 of PESA, the *Gram Sabha* is entrusted with safeguarding traditional institutions, protecting natural resources, and preserving cultural identity. It must be consulted before the state acquires tribal land or transfers natural resources. This legislative intervention thus transforms the concept of Panchayati Raj from a procedural democracy to a substantive, participatory democracy based on consent and accountability. In doing so, PESA concretizes Article 40's principle of village self-government and links it directly to the autonomy guaranteed under Article 244.

Complementing PESA, the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (FRA) redefined the governance of forest resources. By recognizing both *individual* and *community forest rights*, FRA restored the historical relationship between Indigenous communities and their ecological ecosystems (Forest Rights Act, 2006). It empowers the *Gram Sabha* as the primary authority to initiate claims, verify titles, and protect traditional forest territories. In many ways, FRA furthers the constitutional ideal that sovereignty over "*jal, jangal, zameen*" (water, forest, land) lies with the people.

Together, PESA and FRA transform the static protection model of the Fifth Schedule into a dynamic framework of self-determination. They reposition Indigenous institutions not as subjects of administration but as agents of governance. This marks a shift from protective

governance to participatory constitutionalism, affirming that self-rule is both a constitutional right and a democratic necessity.

Despite these legislative innovations, implementation challenges persist—ranging from bureaucratic resistance to the recent wave of digital governance systems that often bypass community institutions. The erosion of consent-based decision-making through centralized technologies threatens to undo decades of progress in democratizing tribal self-rule. The next section examines how these digital systems intersect with, and sometimes undermine, the architecture of constitutional autonomy.

3. Digital Governance and the Erosion of Autonomy

The last decade has seen India's governance architecture undergo a rapid digital transformation. Initiatives such as Digital India, Aadhaar-enabled service delivery, and e-governance platforms are now positioned as solutions for transparency, inclusion, and efficiency. However, these reforms have reconfigured the very nature of the relationship between citizens and the State—especially in tribal regions, where self-governance is constitutionally guaranteed. The transition from paper-based administration to algorithmic decision-making systems has expanded state presence into even the most remote villages, introducing what scholars call a "*data-driven centralization of governance*" (Khera, 2019).

While the language of digitalization promotes inclusion and empowerment, the underlying administrative logic remains top-down. In Scheduled Areas, such platforms often bypass the *Gram Sabhas* and Autonomous Councils that form the legal bedrock of local decision-making. This new system thus subtly undermines the constitutional scaffolding of autonomy laid down in the Fifth and Sixth Schedules, the *Panchayats (Extension to Scheduled Areas) Act, 1996* (PESA), and the *Forest Rights Act, 2006* (FRA).

3.1. Digital Infrastructure as a New Mode of Centralization:

India's digital infrastructure rests upon a network of biometric, financial, and geospatial databases that record and categorize individuals and communities. The Aadhaar system—under the *Aadhaar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Act, 2016*—links each person's biometric and demographic information to every major welfare program, from food subsidies to pensions. Within this architecture, identity

verification becomes the gatekeeper for accessing rights (Ramanathan, 2017).

However, for tribal populations in states like Jharkhand and Chhattisgarh, the digital turn has led to functional exclusion. In many villages, fingerprint scanners fail due to manual labor or technical irregularities. When authentication errors occur, beneficiaries are automatically excluded from welfare schemes, including under the Public Distribution System (PDS), even when they fulfill eligibility criteria (Khera & Drèze, 2018). These failures create a paradox: *digital inclusion* generates physical exclusion.

From a constitutional standpoint, such exclusionary mechanisms distort the participatory ideal enshrined in PESA and FRA. The substitution of community-based verification by *algorithmic validation systems* effectively erases the role of the *Gram Sabha* in determining entitlements. Consequently, digital systems recentralize authority in a manner antithetical to tribal self-rule (Bhatia, 2021).

3.2. Aadhaar, Welfare, and the Problem of Consent:

The Supreme Court's judgment in *Justice K.S. Puttaswamy (Retd.) v. Union of India* (2017) marked a constitutional watershed by recognizing the right to privacy as intrinsic to Article 21. In his opinion, Justice D.Y. Chandrachud emphasized *informational self-determination*—the right of individuals to control the collection and use of their personal data (Puttaswamy v. Union of India, 2017). While this doctrine holds promise for protecting data autonomy, its translation into welfare-system governance has been inconsistent.

In the subsequent *Puttaswamy (Aadhaar) (5J Bench)* decision (2018), the Court upheld the Aadhaar Act's validity but imposed restrictions on its use by private entities. Yet, the judgment did not fully account for the specific vulnerabilities of collective entities, such as tribal communities. In tribal contexts, consent is not merely individual—it is communal and deliberative, exercised through the *Gram Sabha*. By embedding Aadhaar into state programs in Scheduled Areas without *community-level consent*, the digital governance model effectively bypasses constitutional consent mechanisms (Rahman, 2020).

These developments call into question whether digital systems genuinely serve the goals of efficiency and inclusion, or whether they displace political consent under the guise of administrative rationality. The logic of "*governance by algorithms*" privileges data accuracy

over democratic legitimacy, reducing citizens to data points and communities to geographical coordinates (Eubanks, 2018).

3.3. GIS Land Mapping and Algorithmic Resource Governance

Land, forest, and resource governance represent the core components of tribal autonomy. Digital technologies have redefined this domain through GIS-enabled mapping and digitized land record modernization programs (DLRMP). In states like Jharkhand, Odisha, and Madhya Pradesh, digital land surveys have introduced aerial mapping and cadastral integration under e-governance missions such as *Bhoomi* and *BhuNaksha* (Department of Land Resources, 2021). These initiatives—although aimed at curbing corruption—have begun to rewrite spatial governance itself.

While the Fifth Schedule entrusts land regulation to the Governor and the *Tribes Advisory Council*, digital surveys often proceed without *Gram Sabha* consultation. Communities report that digital maps overwrite customary boundaries, omit shifting cultivation zones, and reclassify forest commons as "government land" (The Wire, 2026). Unlike traditional surveying, which is visible, participatory, and contestable, digital surveys occur through remote sensing and opaque algorithmic layers. The outcome is a new "digital dispossession", where data, rather than bulldozers, redraws territorial control.

Under the *Forest Rights Act, 2006*, the *Gram Sabha* is legally empowered to verify community forest resource (CFR) boundaries. However, as digital instruments increasingly geo-code land, this verification process becomes redundant—replaced by a centralized spatial grid maintained by state data centers. This process not only excludes tribal voices from decision-making but also substitutes *collective knowledge systems* with technical ones. Thus, the epistemic authority of Indigenous communities is supplanted by algorithmic authority.

Similar concerns arise with satellite-based resource mapping and mining clearance processes, which often use automated environmental assessment systems without incorporating *Free, Prior, and Informed Consent (FPIC)* from affected Gram Sabhas. This raises profound constitutional questions about the meaning of self-rule in the era of digital extractivism (Roy & Lang, 2022).

3.4. Data and Development: The Political Economy of Digital Welfare

Digitization in tribal areas is not merely a technological intervention; it is part of a larger political economy of data. Data extracted through welfare platforms, digital identity systems, and resource mapping creates economic and political value for the State—enabling predictive governance, credit profiling, and resource allocation modeling. However, these benefits come at the cost of eroding local autonomy and collective control (Couldry & Mejias, 2019).

The discourse of "inclusion through technology" obscures how digital infrastructures often serve as instruments of central surveillance. In Scheduled Areas, where governance must constitutionally operate through local councils or assemblies, the vertical flow of data to central repositories directly contradicts the principle of decentralization (Choudhury, 2023). When every administrative transaction becomes datafied, *self-governance becomes self-surveillance*.

Moreover, digitization tends to reinforce administrative paternalism—a phenomenon the Fifth Schedule initially sought to avoid. The process reduces complex issues of rights, ecology, and redistribution into quantifiable data inputs. It ignores local epistemologies and reinforces technocratic hierarchies under the language of efficiency. As such, digital governance reintroduces the same logic of external control that colonial administrators once exercised, but now through screens and code rather than direct coercion (Mohan, 2021).

3.5. Constitutional Tensions and the Re-Centralization of Authority

At the heart of India's tribal governance framework lies the concept of consent—a procedural and substantive guarantee that the people's voice must precede state intervention. Both PESA and FRA institutionalize this ideal by mandating *Gram Sabha approval* before any land acquisition, mining lease, or forest diversion. However, digital governance replaces the participatory process of consent with a *technological abstraction* of it.

When welfare entitlements, land claims, or forest rights become contingent on machine verification, *algorithmic authority supplants democratic authority*. The unit of governance shifts from the assembly to the database. This technological centralization contradicts the spirit of Article 244 and the jurisprudence of participatory democracy recognized in *Union of India v. Rakesh Kumar* (2010), where the Supreme Court emphasized decentralization as a

constitutional principle.

Thus, while digital governance appears ideologically neutral, its administrative architecture constitutes a systemic re-centralization of power—quietly dissolving the autonomy that constitutional framers sought to entrench in tribal policy. The irony is unmistakable: *the very tools designed to empower marginalized communities are turning into instruments of their renewed subjugation.*

3.6. Toward an Ethical Framework of Technological Autonomy

For digital governance to align with constitutional morality, it must evolve beyond efficiency-oriented metrics and engage with the ethical imperatives of *inclusion, consent, and accountability*. The jurisprudence of *Puttaswamy (2017)* offers a foundation by situating informational privacy within human dignity. Extending this reasoning to Scheduled Areas implies that informational autonomy—the ability of communities to govern their data, identity, and access—is an extension of *territorial autonomy*.

Emerging discourse on Indigenous Data Sovereignty (IDS) and Digital FPIC (Free, Prior, and Informed Consent) provides a potential model. IDS asserts that Indigenous peoples have the right to control the collection, use, and storage of data about their communities, as affirmed by the *UN Declaration on the Rights of Indigenous Peoples (UNDRIP)* (United Nations, 2007). Applying IDS principles within Indian constitutionalism would mean that no digital program—be it biometric, spatial, or financial—should operate in Scheduled Areas without prior approval and ongoing oversight by *Gram Sabhas* and *Autonomous District Councils*.

Redefining tribal autonomy for the digital age requires institutional innovations such as community data trusteeships, local data auditing mechanisms, and algorithmic transparency mandates. Such measures would transform data governance from a vertical flow of control to a horizontal flow of power-sharing—in keeping with the democratic spirit of Articles 243, 244, and 13 of the Constitution.

4. Digital Governance, Tribal Autonomy, and the Demand for Informational Self-Rule

India's digital transformation—through Aadhaar-based welfare systems, GIS mapping, and e-governance tools—has been hailed as a revolution in public administration. Yet, beneath this

narrative of efficiency lies a growing tension with the pluralistic ideals of the Indian Constitution. Nowhere is this conflict more visible than in Scheduled Areas, where tribal self-rule is not a policy preference but a constitutional guarantee under Articles 244 and 275, and the Fifth and Sixth Schedules.

This chapter explores how the digitalization of governance in tribal regions restructures power in favor of the State, recentralizing administrative authority and weakening community consent mechanisms institutionalized through the *Panchayats (Extension to the Scheduled Areas) Act, 1996* (PESA) and the *Forest Rights Act, 2006* (FRA). Drawing on developments in Jharkhand and Chhattisgarh, it examines how technology can simultaneously enable participation and reproduce inequality—what can be termed the paradox of algorithmic inclusion and functional exclusion. It then argues for a reconceptualization of tribal autonomy as informational self-governance, rooted in constitutional jurisprudence and international norms of Indigenous data sovereignty.

4.1. Jharkhand: Algorithmic Inclusion and Functional Exclusion

Jharkhand's experience illustrates the impacts of digital centralization on welfare access and dignity. With the rollout of Aadhaar-enabled Public Distribution System (AePDS), nearly all transactions—from food grains to pensions—require biometric authentication and digital record matching. In tribal-dominated districts such as Simdega and Gumla, this shift has resulted in widespread exclusion due to authentication failures, seeding errors, and poor connectivity (Drèze & Khera, 2017; Khera & Patnaik, 2019).

For elderly individuals and manual laborers whose fingerprints could not be captured properly, the denial of food rations became routine—a systemic deprivation of constitutional rights under Article 21. Despite repeated appeals from *Gram Sabhas* to allow manual verification or community-based beneficiary lists, local assemblies lacked the legal or administrative power to intervene. Digital infrastructure, presented as inclusive, thus supplanted democratic oversight with algorithmic control (Mehta & Sharma, 2020).

This phenomenon connects directly to the doctrine of substantive due process articulated by the Supreme Court in *Olga Tellis v. Bombay Municipal Corporation* (1985), which interpreted life under Article 21 to include the means of livelihood. When data systems deny citizens food security on technical grounds, they transform bureaucratic errors into violations of fundamental

rights. In Jharkhand, welfare has thus been redefined not as a government obligation but as a technological transaction, conditional upon biometric approval.

The situation exposes a deeper contradiction between technological rationality and constitutional morality: digital systems pursue *administrative efficiency* at the cost of *human dignity*. Gram Sabhas—imagined as constitutional spaces of participation—are rendered digitally invisible, bypassed by data architectures that do not recognize deliberation as a unit of governance (Ramanathan, 2017).

4.2. Chhattisgarh: Digital Forest Mapping and Consent Dilution

In Chhattisgarh's Bastar region, the conflict between digital governance and local autonomy appears in environmental administration. Despite the FRA's explicit recognition of *Gram Sabha* authority over forest resources, new Digital Land Records Modernization Projects (DLRMP) and GIS-enabled mapping initiatives have effectively bypassed these institutions (Department of Land Resources, 2021).

Contracted technology firms now employ satellite imagery and automated mapping to delineate resource boundaries, often without the legally required community consent (Roy & Lang, 2022). This has produced cases where digital boundaries conflict with customary land use patterns, resulting in overlapping or erased community forest rights. The very *process* of governance—once deliberative and participatory—has become remote, technical, and opaque.

These practices contradict Section 5 of the FRA, which mandates that Gram Sabhas safeguard community forests and ensure that their habitat is not threatened by external projects. Instead, digital mapping replaces dialogic verification with algorithmic classification. Forest governance is thus privatized and virtualized, shifting control from local democratic bodies to distant data servers.

Moreover, these programs reintroduce a form of what scholars call "digital extractivism"—the appropriation of Indigenous land and knowledge through technological means (Couldry & Mejias, 2019). Ownership and control are displaced not by colonial-era surveyors but by data managers and contractors, generating a new kind of dispossession in which information itself becomes the resource.

4.3. Rethinking Autonomy: From Territorial to Informational Sovereignty

The Indian constitutional model of tribal self-rule was historically designed around *territorial autonomy*—control over land, forest, and natural resources. In the digital age, however, this framework must expand to include informational autonomy. As data systems determine access to welfare, land tenure, and citizenship, the ownership and consent governing this data become as fundamental as ownership of land (Bhatia, 2021).

The Supreme Court's decision in *Justice K.S. Puttaswamy (Retd.) v. Union of India* (2017) reaffirms that privacy and autonomy include the right to control one's personal information. Applying that doctrine collectively, tribal communities emerge as data subjects and data sovereigns with constitutional stakes in how their collective information is gathered and used. Losing control over data effectively dissolves control over identity, representation, and decision-making (Rahman, 2020).

Informational self-rule, therefore, represents the next frontier in the evolution of Indian federalism. Just as the Fifth and Sixth Schedules envisioned differentiated sovereignty over territory, a similar framework is required for data governance in Scheduled Areas—ensuring that technology remains accountable to people, not the other way around.

4.4. Indigenous Data Sovereignty and the Digital FPIC Framework

At the global level, the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP, 2007) recognizes Indigenous peoples' rights to maintain, control, and protect their cultural knowledge, data, and resources. It mandates Free, Prior, and Informed Consent (FPIC) before any intervention—economic or administrative—affecting Indigenous territories. Translating FPIC into digital governance offers a constitutional avenue for reconciling technology with autonomy.

Digital FPIC implies that any government or corporate initiative involving data collection, storage, or analysis in tribal regions must undergo community consultation and consent. This should include:

- Mandatory Gram Sabha discussions before deploying Aadhaar-linked or GIS-based systems in Scheduled Areas;

- Community data audits to review, verify, or request deletion of sensitive local data;
- Legal recognition of community data trusteeships, allowing Gram Sabhas or Autonomous District Councils to manage local datasets (Choudhury, 2023).

The upcoming Digital Personal Data Protection Act, 2023 provides a statutory scaffold for such mechanisms but lacks any localized embodiment for indigenous or rural communities. Introducing community-level fiduciary models—akin to data cooperatives—would translate privacy rights into participatory governance. In effect, information consent would evolve from being an administrative checkbox to a democratic process rooted in collective decision-making.

4.5. Community Data Governance and Democratic Technology

Community Data Governance (CDG) is an institutional framework that builds accountability into technology ecosystems through local stewardship. Under this model, *Gram Sabhas* and Autonomous District Councils act as data fiduciaries, responsible for ensuring that any system collecting community data complies with ethical and constitutional standards (Couldry & Mejias, 2019).

CDG frameworks align with the digital fiduciary principles of transparency, accountability, and proportionality, already recognized under Indian data protection jurisprudence. Locally integrated CDG units could:

- Maintain decentralized data repositories;
- Conduct algorithmic audits to detect bias or misuse;
- Create participatory grievance mechanisms for data-related harm; and
- Integrate traditional norms of confidentiality and collective consent into digital operation.

Embedding constitutional trust into digital spaces would re-democratize governance—transforming technology from a top-down instrument into a medium of emancipatory participation.

This approach echoes Ambedkar's original philosophy of self-rule through moral and political

agency. It does not view tribal governance as resistance to modernity, but as an ethical reconfiguration of modernity—where technology and constitutionalism coexist through mutual accountability.

4.6. Policy Pathways for a Decentralized Digital Republic

Bridging the constitutional framework with digital governance calls for structural reform across three domains: legal, institutional, and ethical. A coherent policy framework must therefore address the following priorities:

I. Digital FPIC Legislation: Amend the *Panchayats (Extension to Scheduled Areas) Act, 1996* and the *Forest Rights Act, 2006* to mandate digital consent processes for all e-governance programs (Rahman, 2020).

II. Community Data Trusteeship: Institutionalize local data fiduciaries within *Gram Sabhas* and *Autonomous Councils* to manage community datasets, ensuring control, review, and consent over data flows (Choudhury, 2023).

III. Algorithmic Transparency and Accountability: Implement mandatory disclosures and public audits of algorithms operating in welfare distribution, digital land mapping, and resource governance (Eubanks, 2018).

IV. Fiscal Autonomy: Establish dedicated digital governance funds directly allocated to tribal councils, enabling them to administer localized technology projects without depending on state bureaucracies (Bandi, 2019).

V. Customary Cyber Laws: Codify Indigenous approaches to privacy, trust, and data-sharing as part of India's broader data protection architecture, respecting customary epistemologies (Mohan, 2021).

Together, these reforms would create a constitutional ethic of technology, embedding digital governance within the values of consent, participation, and equality.

5. Conclusion

India's constitutional approach to tribal autonomy represents one of the most profound experiments in pluralist democracy—a structure that grants differentiated self-rule to ensure

substantive equality. The Fifth and Sixth Schedules, alongside PESA and FRA, built a model of governance rooted in territory, consent, and community decision-making. But as this research has shown, digital governance has introduced an unprecedented transformation: the migration of autonomy from land to data.

Digital infrastructures like Aadhaar, GIS mapping, and centralized welfare databases have re-encoded tribal spaces into data zones governed not by assemblies but by algorithms. In Jharkhand, technological exclusion redefined who receives food. In Chhattisgarh, satellite mapping redefined who owns the forest. In both, informational systems displaced democratic ones. This is the contemporary form of digital colonialism—where surveillance and databases replace administrative domination, and dispossession occurs through code rather than coercion (Couldry & Mejias, 2019).

Yet, the Indian Constitution remains alive to adaptation. Its guarantee of decentralization under Articles 243 and 244, and the interpretive expansions under *Puttaswamy (2017)*, provide the jurisprudential foundation for a new paradigm—Informational Self-Governance. Just as land rights define physical sovereignty, data rights must define digital sovereignty. For tribal communities, self-determination today means being the authors of their informational identity.

Recognizing digital consent as a form of constitutional consent would reaffirm the centrality of the *Gram Sabha* as a site of democratic legitimacy. Such a shift does not reject modernization—it shapes it. It harmonizes the ethics of technology with the moral universe of the Constitution, ensuring that progress does not result in dispossession.

India thus stands at a constitutional crossroads: whether to let technology recentralize governance or to reclaim digitalization as an instrument of self-rule. The future of tribal autonomy will depend not only on protecting boundaries of land but also on securing the boundaries of data. The true test of a digital republic, therefore, lies in its ability to ensure that the power of computation never outweighs the power of consent.

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