

TECHNOLOGY, POWER AND THE STATE: AI IN CONTEMPORARY GOVERNANCE

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ABSTRACT

The rapid integration of Artificial Intelligence (AI) into governance systems has fundamentally redefined the relationship between technology, power, and the state. AI is no longer a neutral administrative tool but a transformative force influencing policy-making, public service delivery, surveillance, and citizen-state interactions. This study critically examines the role of AI in contemporary governance, focusing on its implications for power structures, ethical accountability, and democratic values in developing countries, particularly India.

The research adopts a qualitative methodology supported by secondary data analysis and comparative policy review. It explores how AI reshapes state power by enabling data-driven governance while simultaneously raising concerns related to algorithmic bias, digital exclusion, and centralization of authority. The findings reveal that while AI enhances administrative efficiency and predictive governance, it also risks reinforcing inequalities and reducing transparency if not governed through ethical frameworks.

The study identifies key challenges including digital divide, lack of regulatory frameworks, institutional capacity gaps, and limited citizen participation in AI governance. It evaluates global models such as the European Union AI Act and UNESCO ethical guidelines to derive applicable lessons for India. The paper proposes a value-based governance framework that integrates principles of fairness, accountability, transparency, and inclusivity. Recommendations include the establishment of independent oversight bodies, inclusive data ecosystems, and strengthened AI literacy initiatives.

Keywords: Artificial Intelligence, Governance, Algorithmic Power, Digital Divide, Ethical Frameworks.

1. INTRODUCTION

Artificial Intelligence has emerged as a central force shaping contemporary governance systems worldwide. Governments across the globe are increasingly adopting AI-driven technologies to improve efficiency, enhance decision-making, and deliver public services at unprecedented scales. However, the integration of AI into governance structures raises fundamental questions about power, accountability, and ethical responsibility that demand rigorous scholarly examination.

The concept of the state has traditionally been associated with authority, control, and governance through human institutions. With the advent of AI, this authority is increasingly mediated through algorithms, data systems, and predictive technologies. This transformation introduces a new and complex dimension of power—algorithmic power—which profoundly influences policy decisions, resource allocation, and citizen outcomes in ways that often lack transparency or democratic oversight.

In India, flagship initiatives such as Digital India, Aadhaar biometric identification, and the recently launched IndiaAI Mission illustrate the growing and ambitious role of AI in governance. While these initiatives have demonstrably improved efficiency and expanded access to public services, they simultaneously highlight deep concerns regarding state surveillance, exclusion of vulnerable populations, and data privacy violations.

This paper seeks to critically examine the intersection of technology, power, and governance. It emphasizes the urgent need for ethical frameworks to ensure that AI contributes to inclusive development and democratic accountability rather than reinforcing existing inequalities or creating new forms of structural exclusion.

2. NEED FOR THE STUDY

The increasing reliance on AI in governance necessitates a critical examination of its multifaceted implications. Existing scholarship has largely focused on technological efficiency and administrative gains, with comparatively limited attention devoted to the power dynamics, structural inequalities, and ethical concerns associated with AI-driven governance systems.

The following factors motivate this study:

- Rapid and largely unregulated expansion of AI systems in public administration
- Absence of comprehensive, rights-based AI governance frameworks in India and comparable developing economies
- Growing documented concerns over state surveillance capabilities and misuse of citizen data
- Significant risk of exclusion of marginalized communities—women, rural populations, and linguistic minorities—from AI-enabled services
- Critical need for ethical, value-based policy frameworks grounded in democratic principles

3. OBJECTIVES OF THE STUDY

- To analyze the evolving role of AI in contemporary governance systems with particular reference to India
- To examine the relationship between technological power, algorithmic authority, and the democratic state
- To identify and systematically categorize the challenges and risks inherent in AI-driven governance
- To evaluate global best practices and regulatory models in AI governance, including the EU AI Act and UNESCO recommendations
- To propose a value-based governance framework grounded in fairness, transparency, and inclusivity

4. HYPOTHESIS

H₁: AI-driven governance enhances administrative efficiency but simultaneously increases risks of structural inequality, algorithmic bias, and centralization of state power.

H₂: Robust ethical governance frameworks, when effectively implemented, can mitigate the principal risks associated with AI deployment in public policy and restore democratic accountability.

5. RESEARCH METHODOLOGY

5.1 Research Design

The study adopts a qualitative research design focusing on policy analysis, comparative governance review, and theoretical interpretation. This approach is appropriate given the normative and structural nature of the questions under investigation, the complexity of the policy environment, and the primacy of interpretive frameworks in understanding power relations.

5.2 Data Sources

- Government policy documents: IndiaAI Mission (2024), NITI Aayog National AI Strategy (2018), Ministry of Electronics and Information Technology publications
- International institutional reports: UNESCO AI Ethics Recommendation (2021), OECD AI Policy Guidelines (2022), World Bank Digital Development Reports
- Peer-reviewed academic journals, conference proceedings, and monographs in political science, governance studies, and AI ethics
- Secondary statistical datasets from TRAI Internet Reports, International Labour Organization employment data, and PwC economic projections

5.3 Analytical Approach

- Comparative policy analysis of global AI governance models across the EU, India, China, and the United States
- Thematic analysis of ethical concerns using Jobin et al.'s (2019) AI ethics landscape framework
- Conceptual framework development drawing on Sen's (1999) capabilities approach and Rhodes' (2000) governance theory

5.4 Limitations

- Reliance on secondary data rather than primary empirical fieldwork
- Rapidly evolving AI policy landscape, particularly post-2023 generative AI developments
- Limited availability of real-time implementation and outcome data from Indian government AI programmes

6. DATA ANALYSIS AND INTERPRETATION

6.1 AI and Power Transformation

The deployment of AI technologies within governance systems fundamentally alters the distribution and exercise of state power. Historically, bureaucratic authority was exercised through hierarchical human institutions subject to procedural accountability mechanisms. AI introduces a post-bureaucratic logic in which decisions are generated through computational processes operating on large datasets, often at speeds and scales that preclude meaningful human review.

AI enhances state capacity through three primary mechanisms: (a) predictive governance, enabling authorities to anticipate social needs and security threats before they manifest; (b) automated decision-making in domains such as welfare eligibility, visa processing, and judicial sentencing recommendations; and (c) comprehensive surveillance systems that extend the monitoring capacity of the state beyond previous technological limits. While each mechanism offers efficiency gains, all three simultaneously concentrate decision-making power within institutions that control data infrastructure and algorithmic systems, raising profound democratic accountability concerns.

6.2 Digital Divide Analysis

A critical precondition for equitable AI governance is universal digital access. The data below reveals a significant structural barrier to inclusive AI-enabled governance in India:

Figure 1: Internet Access Distribution in India (TRAI, 2023)

Category	Chart	Value
With Internet Access		52%
Without Internet Access		48%

Category	Population Percentage	Governance Implication
Internet Access	52%	Can access AI-enabled services
No Internet Access	48%	Excluded from digital governance
Rural Broadband	38%	Significant rural-urban gap
Mobile Internet Only	71% of connected	Quality and speed disparities

The data reveals a sobering reality: nearly half the Indian population remains structurally excluded from AI-enabled governance services. This digital exclusion is not uniformly distributed but correlates strongly with pre-existing socioeconomic disadvantages—rural location, low income, caste-based marginalization, and gender. This evidence supports the hypothesis that uncritical AI deployment risks intensifying rather than ameliorating existing inequalities.

6.3 AI Economic Impact Projections

The macroeconomic case for AI in governance is compelling and is frequently invoked by policymakers to justify rapid deployment. The following data, drawn from PwC (2023) projections, illustrates the anticipated trajectory of AI's economic contribution:

Figure 2: Global AI Economic Contribution Projections (PwC, 2023)

Category	Chart	Value
2020 (Actual)		2.0 \$ Trillion
2025 (Projected)		8.0 \$ Trillion

2030 (Projected)		15.7 \$ Trillion
Year	AI Economic Contribution (USD Trillion)	CAGR (%)
2020 (Actual)	\$2.0 Trillion	—
2025 (Projected)	\$8.0 Trillion	32.0%
2030 (Projected)	\$15.7 Trillion	14.5%

While these projections underscore the transformative economic potential of AI, it is critical to note that benefits are highly unevenly distributed across and within nations. Without deliberate redistributive governance policies, AI-generated economic gains are likely to accrue disproportionately to technology-owning corporations, skilled workers, and nations with advanced digital infrastructure.

6.4 Global AI Governance Comparative Analysis

Governance Model	Key Features	Relevance to India
EU AI Act (2024)	Risk-based classification, mandatory audits, prohibited uses	Regulatory template for high-risk applications
UNESCO Ethics Recommendation (2021)	Human rights-centered, inclusivity principles, environmental sustainability	Value framework for policy design
OECD AI Principles (2022)	Trustworthiness, transparency, accountability standards	International benchmark for governance
China AI Governance (2023)	State-directed development, algorithmic recommendation regulations	Cautionary model on centralization risks
India IndiaAI Mission (2024)	Compute infrastructure, data ecosystem, AI startups	Emerging framework needing ethics integration

6.5 Key Findings

- AI deployment significantly increases administrative efficiency but measurably reduces meaningful human oversight in high-stakes decision-making domains
- Systematic bias in training datasets produces discriminatory outcomes that disproportionately affect marginalized communities, including lower-caste populations, women, and linguistic minorities
- Lack of algorithmic transparency prevents affected citizens from understanding, contesting, or appealing AI-driven administrative decisions, undermining due process
- Regulatory frameworks in India remain substantially underdeveloped relative to the scale and speed of AI deployment, creating a governance deficit

- The digital divide constitutes a structural barrier to equitable AI governance that must be addressed as a prerequisite for inclusive policy implementation

7. DISCUSSION

The findings of this study reveal a fundamental and politically significant tension between efficiency and equity in AI-driven governance. While AI enables faster, more data-rich decision-making that can optimize public service delivery, it simultaneously creates conditions that may systematically marginalize vulnerable populations who lack digital access, algorithmic literacy, or institutional recourse.

The concentration of technological power within centralized state institutions and private technology corporations raises profound concerns about democratic accountability. When consequential decisions regarding welfare entitlements, criminal justice, border control, and public health resource allocation are delegated to algorithmic systems, the traditional mechanisms of democratic accountability—electoral pressure, judicial review, parliamentary oversight, and administrative appeal—become increasingly inadequate without specific institutional adaptation.

Comparative analysis of global governance models, particularly the EU AI Act's risk-stratified regulatory approach and UNESCO's human rights-centered ethical framework, suggests that effective AI governance requires moving beyond efficiency metrics to incorporate substantive commitments to fairness, explainability, and participatory design. India's IndiaAI Mission represents a significant infrastructural investment but currently lacks a parallel investment in ethical governance architecture.

The study suggests that governance must fundamentally shift from technology-centric implementation models, which prioritize deployment speed and efficiency gains, to human-centric frameworks that treat AI as a means to enhance human capabilities and democratic participation rather than an end in itself. This repositioning requires not merely technical solutions but political will, institutional reform, and expanded civil society engagement in AI policy processes.

8. RECOMMENDATIONS

8.1 Institutional Reforms

- Establish an independent AI Ethics Commission with statutory authority, multi-stakeholder composition including civil society and academic representation, and powers to conduct audits and impose penalties
- Strengthen regulatory frameworks through a tiered, risk-based AI Act modelled on EU precedent, with mandatory human oversight requirements for high-stakes applications in welfare, justice, and healthcare
- Mandate parliamentary review of all government AI deployments exceeding defined scale or risk thresholds

8.2 Policy Measures

- Require mandatory independent algorithmic audits for all AI systems used in public administration, with findings published in accessible formats
- Establish enforceable transparency requirements including explainability obligations, decision logging, and public disclosure of training data sources and model limitations

- Create accessible administrative appeal mechanisms for individuals adversely affected by AI-driven government decisions

8.3 Social Inclusion

- Expand rural broadband infrastructure investment to eliminate the digital divide as a prerequisite for equitable AI governance
- Integrate AI literacy into school and higher education curricula, with targeted programmes for adult populations, women, and marginalized communities
- Establish community-based digital inclusion centres in underserved areas to provide both access and capability support

8.4 Data Governance

- Mandate the development of inclusive, representative training datasets that reflect India's demographic, linguistic, and socioeconomic diversity
- Enact and enforce robust privacy protection mechanisms through a strengthened Personal Data Protection framework with independent regulatory oversight
- Establish data trusts and community data governance models that give citizens meaningful control over their digital data

9. APPLICATIONS

The governance framework proposed in this paper has practical applicability across multiple domains of public administration:

Domain	AI Application	Governance Consideration
Public Service Delivery	Automated entitlement processing, chatbot interfaces	Explainability, appeal rights, language accessibility
Healthcare	Diagnostic support, resource allocation, epidemic prediction	Clinical oversight, equity in access, data privacy
Agriculture	Crop advisory systems, weather prediction, market price information	Rural connectivity, farmer digital literacy
Smart Governance	Traffic management, public safety, urban planning	Surveillance limits, civil liberties, community consent
Education	Adaptive learning systems, administrative automation	Equity of access, teacher empowerment, bias prevention

10. CONCLUSION

Artificial Intelligence holds transformative potential to redefine governance systems, enhance state capacity, and improve public service delivery at scale. However, the realization of this potential is not automatic or inevitable—it depends critically on the regulatory, ethical, and institutional frameworks within which AI is designed, deployed, and audited.

Without robust ethical governance architecture, AI systems risk amplifying existing structural inequalities, concentrating power in unaccountable institutions, and eroding the democratic principles that legitimize state authority. The evidence presented in this study demonstrates

that the challenges are not merely technical—they are fundamentally political, requiring choices about values, distribution, and the kind of society that governance technology should serve.

A value-based governance approach that integrates principles of fairness, transparency, accountability, and inclusivity into AI policy from the outset—rather than as an afterthought—is therefore essential to ensuring that AI-driven governance serves democratic ends. This means investing simultaneously in technological infrastructure and in the ethical, regulatory, and human capacity frameworks that make technology accountable to citizens.

This research contributes to the growing interdisciplinary discourse on ethical AI governance and offers policy insights that are particularly applicable to India and comparable developing economies navigating the dual imperatives of digital transformation and democratic accountability. Future research should focus on empirical evaluation of implemented governance frameworks, with particular attention to outcomes for historically marginalized populations.

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