

POLITICAL AND HISTORICAL DIMENSIONS OF AI

Gangadharaiah

Associate Professor

Department of History, Government First Grade College, Magadi, Bengaluru South District,
India

ABSTRACT

Artificial Intelligence (AI) represents a transformative technological force that is reshaping governance structures, societal interactions, and political power dynamics across the globe. While AI is often examined through a technological or economic lens, its political and historical dimensions remain underexplored, particularly in the context of developing societies such as India. This paper investigates the intersection of technology, governance, and society by analyzing AI as a socio-political construct embedded within historical trajectories of state power, institutional development, and public policy evolution.

The study adopts a qualitative research methodology, drawing upon historical analysis, policy review, and secondary data sources to examine how AI-driven governance systems influence political authority and societal outcomes. It explores the evolution of governance from bureaucratic systems to algorithmic governance, highlighting how AI transforms decision-making processes, redistributes power, and redefines state-citizen relationships.

Findings indicate that AI has the potential to enhance governance efficiency and policy responsiveness; however, it simultaneously raises concerns related to democratic accountability, surveillance expansion, digital inequality, and algorithmic bias. The study also reveals that historical patterns of technological adoption significantly shape contemporary AI governance models, reinforcing existing socio-political hierarchies.

The paper argues for a critical, historically informed approach to AI governance that integrates ethical principles, inclusive policy design, and democratic oversight. It recommends the development of participatory governance frameworks, strengthening of institutional capacities, and the embedding of historical awareness into AI policymaking.

Keywords: Artificial Intelligence, Algorithmic Governance, Political Power, Digital Inequality, Historical Institutionalism, Democratic Accountability

1. INTRODUCTION

Artificial Intelligence has emerged as a defining feature of 21st-century governance, fundamentally influencing decision-making processes, public administration, and societal interactions worldwide. While technological advancements have traditionally been viewed as instruments of progress, they are inherently embedded within political and historical contexts that shape their development, deployment, and impact on civil society.

The evolution of governance systems—from colonial administrative structures through bureaucratic modernization to contemporary digital states—provides critical historical insights into how technology interacts with power and society. AI represents a continuation of this trajectory, where governance is increasingly mediated through data, algorithms, and predictive systems that operate at scales and speeds previously impossible for human administrators.

In India, digital governance initiatives such as Aadhaar, Digital India, and AI-based public service delivery systems illustrate the growing integration of technology into core state functions. These developments simultaneously raise important and politically urgent questions regarding transparency, accountability, democratic participation, and the risk of replicating or amplifying historical patterns of exclusion and structural inequality.

This paper seeks to examine AI not merely as a technological tool but as a political and historical phenomenon that profoundly influences governance structures and societal outcomes. It situates contemporary AI governance within longer historical trajectories of state-building, institutional development, and the politics of technological adoption, arguing that this perspective is indispensable for designing equitable and accountable AI systems.

2. NEED FOR THE STUDY

The need for this study arises from a convergence of theoretical gaps and practical urgencies in the governance of AI systems. Existing scholarship has overwhelmingly approached AI from technological or economic perspectives, leaving a significant deficit in interdisciplinary analyses that integrate political science, historical inquiry, and governance studies. This paper addresses the following critical needs:

- Growing and often unregulated role of AI in governance systems across developing nations
- Persistent gap in scholarship examining political and historical dimensions of AI adoption
- Escalating concerns regarding surveillance capabilities and concentration of political power
- Absence of interdisciplinary research combining technology, history, and governance theory
- Urgent need for inclusive, historically informed, and ethically grounded AI policy frameworks

3. OBJECTIVES OF THE STUDY

1. To analyze the historical evolution of technology in governance, tracing patterns from colonial administration through digital statecraft
2. To examine the political implications of AI in contemporary governance systems, focusing on power distribution and democratic accountability
3. To identify and systematically assess societal impacts of AI-driven governance, including both enabling and exclusionary effects
4. To evaluate challenges in AI governance across regulatory, institutional, and social dimensions
5. To propose a historically informed and ethically grounded governance framework applicable to developing societies

4. HYPOTHESIS

H₁: AI-driven governance systems reinforce existing political power structures and socio-economic hierarchies if not subject to robust regulatory and democratic oversight mechanisms.

H₂: Historical patterns of technological adoption and institutional development significantly shape the trajectory and outcomes of contemporary AI governance models.

5. RESEARCH METHODOLOGY

5.1 Research Design

This study employs a qualitative and interdisciplinary research design that draws upon political theory, historical analysis, and policy evaluation. The qualitative approach is appropriate given the interpretive complexity of the research questions, the centrality of contextual and historical factors, and the normative dimensions of AI governance that resist purely quantitative analysis.

5.2 Data Sources

- Government policy documents: IndiaAI Mission (2024), NITI Aayog National AI Strategy (2018), Ministry of Electronics and Information Technology publications
- Historical records and analyses of colonial and post-colonial governance systems in India
- Peer-reviewed academic journals in political science, history, and science and technology studies
- Reports from international organizations: UNESCO (2021), OECD (2022), World Bank (2022), ILO (2022)

5.3 Analytical Framework

- Historical institutionalism: examines how past institutional arrangements shape and constrain contemporary policy choices
- Political economy analysis: situates AI governance within structures of economic power and distributional politics
- Governance theory (Rhodes, 2000): provides a framework for understanding multi-actor, networked governance in the AI era

5.4 Limitations

- Primary reliance on secondary data sources rather than original fieldwork
- Rapidly evolving technological and policy landscape, particularly post-2023 generative AI developments
- Limited availability of longitudinal empirical case studies on AI governance outcomes in India

6. DATA ANALYSIS AND INTERPRETATION

6.1 Historical Evolution of Governance and Technology

Governance has evolved through four analytically distinct phases, each reflecting the prevailing technological capacities and political rationalities of its era. Understanding this trajectory is essential for situating AI within a broader historical context rather than treating it as an unprecedented rupture:

Table 1: Historical Phases of Governance and Technology

Phase	Period	Key Features	Political Implication
Traditional Governance	Pre-modern	Manual, oral, agrarian administration	Power concentrated in landed/religious elites
Bureaucratic Governance	Colonial–1980s	Institutional hierarchy, written records, rule-bound systems	Centralized state authority, administrative rationality
Digital Governance	1990s–2010s	ICT-based systems, e-governance, digitized records	Expanded reach of state; new forms of surveillance
Algorithmic Governance	2010s–present	AI-driven decisions, predictive analytics, automation	Opacity of power; algorithmic authority

This progression reflects not merely a linear march of progress but a series of politically contested transformations in which each technological shift redistributed power among institutional actors, created new forms of inclusion and exclusion, and generated novel governance challenges that prior frameworks were ill-equipped to address.

6.2 AI and Political Power Dynamics

AI influences the distribution and exercise of political power through several interconnected mechanisms, fundamentally altering the relationship between state institutions, citizens, and private actors:

Table 2: AI Influence on Political Power Mechanisms

Mechanism	Description	Governance Risk
Centralization of Decision-Making	Algorithmic systems concentrate policy choices in technical infrastructure controlled by few actors	Reduced pluralism and democratic deliberation
Enhanced Surveillance	AI enables comprehensive monitoring of populations at unprecedented scale and granularity	Chilling effects on civil liberties and dissent
Data-Driven Policy	Evidence-based governance optimizes outcomes but may entrench dataset biases	Historical inequalities embedded in training data
Reduced Human Discretion	Automation of administrative decisions limits contextual judgment and appeal pathways	Erosion of procedural justice and accountability
Predictive Policing	AI forecasts crime and social disorder based on historical patterns	Reinforces structural disadvantages of marginalized groups

6.3 Digital Inequality Analysis

Equitable AI governance is contingent upon broad digital inclusion. The following analysis reveals the structural barriers that currently limit the reach and fairness of AI-driven governance in India:

Figure 1: Digital Inclusion Status in India — AI Governance Access Gap (TRAI, 2023)

Category	Visual Bar	Value
Digitally Included		52%
Digitally Excluded		48%
Rural Internet Access		38%
Mobile-Only Access		37%

Source: TRAI Internet Report (2023); Author's compilation

The data reveals a profound structural tension at the heart of AI governance in India. With nearly half the population lacking reliable internet access, and rural connectivity at only 38%, AI-enabled public services inherently create a two-tier citizenship: those who can access digitally mediated governance and those who are excluded from it. This exclusion is not randomly distributed but maps onto pre-existing social cleavages of class, caste, gender, and geographic location, mirroring colonial-era patterns of differential access to state resources and services.

6.4 AI Economic and Social Impact

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

Year	AI Economic Contribution (USD Trillion)	Annual Growth Rate
2020 (Actual)	\$2.0 Trillion	Baseline
2025 (Projected)	\$8.0 Trillion	+32% CAGR
2030 (Projected)	\$15.7 Trillion	+14.5% CAGR

Table 3: Societal Impacts of AI-Driven Governance

Domain	Positive Impacts	Negative Impacts / Risks
Public Services	Faster delivery, reduced corruption, greater consistency	Exclusion of digitally marginalized, loss of human discretion
Political Participation	E-platforms expand access, data-driven responsiveness	Surveillance chilling effects, algorithmic manipulation of opinion
Economy & Labour	Efficiency gains, new sectors, productivity growth	Job displacement, widening wage inequality, informal sector vulnerability
Social Equity	Targeted welfare delivery, improved data on marginalized groups	Algorithmic bias replicating caste/gender discrimination
Security & Justice	Fraud detection, crime prediction, faster case processing	Racial/social profiling, lack of due process in automated decisions

6.5 Comparative AI Governance Frameworks

Table 4: Global AI Governance Models — Comparative Analysis

Model	Key Principles	Strengths	Lessons for India
EU AI Act (2024)	Risk-based regulation, prohibited uses, mandatory audits	Comprehensive, legally binding	Template for high-risk application regulation
UNESCO Ethics (2021)	Human rights, inclusivity, sustainability	Values-centered, participatory	Normative framework for policy design
OECD AI Principles	Trustworthiness, transparency, accountability	International benchmark	Benchmarking governance standards
IndiaAI Mission (2024)	Compute infrastructure, data ecosystem, AI startups	Scale, ambition	Requires parallel ethics architecture

6.6 Key Findings

- AI fundamentally transforms governance structures by shifting decision-making authority from elected and accountable human officials to algorithmic systems with limited transparency
- Historical patterns of inequality—particularly caste, class, and gender-based discrimination—are systematically embedded in AI training data, risking their perpetuation through algorithmic systems
- The absence of robust regulatory frameworks creates conditions for unchecked power concentration in institutions controlling data and AI infrastructure
- Digital exclusion constitutes a structural governance failure that renders AI-driven public services inaccessible to approximately half the Indian population
- Historical institutionalist analysis confirms that governance innovations consistently reflect and often reinforce the power hierarchies prevailing at the time of their introduction

7. DISCUSSION

The analysis presented in this study reveals that AI is not merely a technological innovation but a deeply political instrument that reshapes governance structures, redistributes authority, and redefines the terms of state-citizen relations. The historical lens applied in this research illuminates a recurring pattern: technological innovations are consistently adopted in ways that reflect and reinforce the prevailing power hierarchies at the time of their introduction, rather than disrupting or democratizing them.

The colonial administrative state in India leveraged documentary and cartographic technologies to extend surveillance and control over subject populations. The post-independence developmental state used information and communications technology to expand state capacity while simultaneously creating new bureaucratic gatekeepers. Contemporary algorithmic governance risks reproducing this dynamic at unprecedented scale and speed, embedding historical biases into automated systems that operate with the authority of objective neutrality.

Critically, the concentration of AI infrastructure—computational resources, proprietary datasets, and technical expertise—within a small number of state institutions and technology corporations creates structural conditions for democratic accountability deficits. When consequential decisions regarding welfare eligibility, criminal justice, border management, and healthcare resource allocation are delegated to algorithmic systems, traditional accountability mechanisms require fundamental adaptation to remain effective.

The study therefore emphasizes the importance of integrating historical perspectives into AI policymaking as a methodological imperative, not merely a scholarly exercise. Governance designers who are unaware of or indifferent to the historical contexts of technological adoption are condemned to reproduce past inequalities in new algorithmic forms. A historically informed approach creates the possibility of designing AI governance frameworks that actively work to interrupt, rather than replicate, structural injustice.

8. RECOMMENDATIONS

8.1 Political Governance Reforms

- Strengthen democratic oversight of AI systems through parliamentary committees with technical expertise, civil society representation, and powers of investigation and sanction
- Mandate algorithmic transparency and explainability requirements for all AI systems used in consequential public administration decisions
- Establish independent AI audit authorities with statutory powers, insulated from executive influence

8.2 Incorporating Historical Awareness into Policy

- Mandate historical impact assessments for major AI deployments, examining how proposed systems may replicate or amplify documented historical inequalities
- Establish interdisciplinary AI policy advisory bodies that include historians, political scientists, and representatives of historically marginalized communities alongside technical experts
- Develop institutional memory frameworks that document AI governance failures and successes for future policy learning

8.3 Institutional Strengthening

- Invest in building AI governance capacity within public institutions, including technical literacy programs for civil servants and elected officials
- Develop comprehensive ethical AI guidelines grounded in constitutional values of equality, dignity, and non-discrimination
- Strengthen inter-agency coordination mechanisms to prevent fragmented and inconsistent AI governance

8.4 Social Inclusion and Digital Equity

- Prioritize universal broadband infrastructure investment as a prerequisite for equitable participation in AI-enabled governance
- Design AI governance systems with meaningful provisions for citizen participation, particularly from digitally excluded and historically marginalized communities
- Develop multilingual and accessible AI interfaces that accommodate India's linguistic and cultural diversity

9. APPLICATIONS

Table 5: Applications of Historically Informed AI Governance Framework

Domain	AI Application		Historical Consideration	Governance Safeguard
Public Administration	Automated processing, systems	welfare permit	Colonial gatekeeping legacy	Human review rights, appeal mechanisms
Policy Decision-Making	Predictive analytics,	policy budget	Technocratic exclusion of marginalized voices	Participatory design, public consultation

	optimization		
Historical Data Analysis	Digitization of colonial records, pattern analysis	Biased historical documentation	Critical annotation, community verification
Security & Justice	Crime prediction, border management	Caste/community targeting history	Strict limits, independent oversight, sunset clauses
Education	Adaptive learning, student monitoring	Differential access to quality education	Equity audits, offline alternatives

CONCLUSION

Artificial Intelligence represents a critical and potentially decisive juncture in the long evolution of governance systems. Its impact extends far beyond the domain of technology into the realms of politics, history, and society—reshaping the distribution of power, the terms of democratic accountability, and the possibilities for inclusive development.

The historical analysis undertaken in this paper demonstrates that AI does not arrive in a social or institutional vacuum but is shaped by—and in turn shapes—the political economies, power hierarchies, and institutional legacies that precede it. The patterns of technological adoption from colonial record-keeping through e-governance to contemporary algorithmic systems reveal a persistent tendency for governance innovations to reinforce prevailing power structures unless deliberately counteracted by inclusive design, robust regulation, and democratic accountability mechanisms.

While AI offers genuine opportunities for improving governance efficiency, expanding service delivery, and enabling evidence-based policymaking, these opportunities will only be equitably realized if the political and historical dimensions of AI deployment are taken seriously by policymakers, technologists, and civil society alike. The future of AI governance in India and comparable developing societies depends on the capacity and willingness of policymakers to balance technological innovation with social justice, democratic accountability, and an unflinching awareness of historical precedent.

This research contributes to interdisciplinary scholarship by situating AI within its proper political and historical contexts, and provides actionable policy insights for building governance systems that are not merely efficient but genuinely equitable, accountable, and historically informed.

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