

Impact of Artificial Intelligence on Research in Indian Universities: A Political Science Perspective

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Abstract:

This article analyzes the impact of Artificial Intelligence (AI) on research in Indian universities through a political science lens. It argues that AI is reshaping not only research methodologies but also the institutional and epistemological foundations of knowledge production. While AI-driven tools enhance data analysis, collaboration, and efficiency, they also raise concerns about epistemic bias, the marginalization of qualitative approaches, and the standardization of academic outputs. The study examines the role of state policies and institutional adoption in promoting AI, highlighting their implications for academic autonomy and research priorities. It further explores challenges related to academic labor, inequality, data governance, and ethical issues such as surveillance and algorithmic bias. The article concludes that AI represents a site of power and contestation, emphasizing the need for a democratic and inclusive framework to govern its integration in Indian higher education.

Keywords: Artificial Intelligence; Indian Universities; Political Science; Knowledge Production; Academic Governance; Epistemology; Algorithmic Bias; Higher Education Policy; Research Methodology; Digital Inequality.

Artificial Intelligence (AI) has emerged as one of the most transformative technologies of the 21st century, reshaping economies, governance systems, and knowledge production worldwide. In India, the rapid integration of AI into higher education institutions has significantly influenced research practices, methodologies, and epistemological frameworks. Indian universities, traditionally characterized by hierarchical academic structures and resource constraints, are now experiencing a paradigm shift as AI tools redefine how knowledge is produced, disseminated, and evaluated.

From a political science perspective, the impact of AI on research extends beyond technological transformation. It intersects with questions of power, governance, inequality, epistemic justice, and state policy. AI not only alters the technical dimensions of research but also reconfigures institutional authority, academic autonomy, and the relationship between knowledge and power in Indian society. This article critically examines the impact of AI on research in Indian universities through a political science lens. It explores how AI is transforming research methodologies, shaping institutional governance, influencing public policy, and raising ethical and political concerns.

1. AI and the Transformation of Research Methodology

One of the most visible impacts of AI in Indian universities is the transformation of research methodologies. AI-powered tools such as machine learning algorithms, natural language processing systems, and big data analytics have revolutionized how researchers collect, analyze, and interpret data. AI

enables scholars to process massive datasets that were previously unmanageable. For example, political scientists can now analyze electoral data, social media discourse, and public opinion trends using AI-driven analytics. This has led to a shift from qualitative, small-scale studies to large-scale, data-driven research.

Moreover, AI tools such as language models assist researchers in literature reviews, hypothesis generation, and even drafting academic content. Studies indicate that AI tools are widely used among students and researchers, with a significant proportion of Indian higher education participants engaging with AI in their academic work. **UNESCO Chairs and UNITWIN Networks** have conducted survey across 90 countries, offering diverse perspectives of how AI integration is emerging in higher education institutions. Nine in ten respondents reported using AI tools in their professional work, most commonly for research and writing tasks. Nearly half are also experimenting with AI in teaching, including lesson planning, grading support, and plagiarism detection, while others use it for administrative or professional development purposes.

Another global study conducted by **Digital Education Council(DEC)**,Singapore has released two major global surveys focused on the adoption and perception of Artificial Intelligence (AI) in higher education: the **Global AI Student Survey (2024)** and the **Global AI Faculty Survey (2025)** according to the survey 86% of the students are using AI in there studies, with 54% using it weekly and nearly one in four using it daily.

From a political science perspective, this shift raises important questions about epistemology. The reliance on algorithmic analysis may privilege quantifiable data over qualitative insights, potentially marginalizing interpretive and critical approaches traditionally central to political science.

2. Institutional Adoption of AI in Indian Universities

The adoption of AI in Indian universities has accelerated in recent years, driven by policy initiatives, technological advancements, and global competition. Reports suggest that more than half of Indian higher education institutions have developed AI policies, reflecting the growing institutionalization of AI. As per a report published in **The Hindu on October 08, 2025**, Over 50% of higher education institutions (HEIs) in India are using generative AI to develop learning materials, while 60% of them are permitting student use of AI tools, according to a new report based on a survey of 30 leading HEIs. Another report released by **Ernst and Young-Parthenon, in collaboration with FICCI**, titled 'Future-Ready Campuses: Unlocking the Power of AI in Higher Education,' found that over 56% of Indian HEIs have already implemented AI-related policies, with 40% deploying AI-powered tutoring systems and chatbots.

Government initiatives such as the National Education Policy (NEP) 2020 emphasize the integration of technology, including AI, to improve access, equity, and quality in education. Universities are increasingly establishing AI Research Centers, collaborating with industry, and incorporating AI into curricula. Recent developments highlight this trend. For instance, major Indian institutions are collaborating with global technology organizations to expand AI-driven research infrastructure and access to AI tools. Similarly, universities are investing in AI-focused research ecosystems and centers of excellence to foster innovation. In view of increasing use of Artificial Intelligence (AI) technology across the world, IIT Kharagpur, IIT-Madras, IIIT-Kancheepuram, NIT Silchar, and NIT Bhopal have set up centres for Artificial Intelligence. Most of the Higher Educational Institutions viz., IITs, NITs, IIITs, etc. offer various AI related courses

such as Deep Learning Foundations & Applications, Foundations of AI and Machine Learning, Reinforcement Learning, Probabilistic Reasoning in AI, Predictive & Prescriptive Data Analytics, Deep Learning, System Identification, Cyber Physical Security, Digital Image Processing, etc. The Acts and Statutes governing these Institutions allow them to have academic and research collaboration with Institutions and Universities across the world in various fields.

3. AI and Knowledge Production: Power and Epistemology

AI fundamentally alters the nature of knowledge production in Indian universities. Political science, as a discipline concerned with power, must interrogate how AI influences what knowledge is produced and whose knowledge is prioritized. AI systems are trained on large datasets, often dominated by Western sources. This creates the risk of epistemic bias, where AI-generated insights may reflect Western perspectives, marginalizing indigenous knowledge systems and local contexts. In Indian universities, this can perpetuate intellectual dependency and limit the development of context-specific theories.

Furthermore, AI tools may standardize research outputs, leading to homogenization of academic discourse. The automation of writing and analysis can reduce originality and critical engagement, raising concerns about the quality and authenticity of research. At the same time, AI offers opportunities to democratize knowledge production. By providing access to advanced analytical tools, AI can empower researchers from under-resourced institutions, enabling them to compete with elite universities.

4. AI, Academic Labor, and Institutional Power

The integration of AI into research has significant implications for academic labor. AI tools can automate tasks such as data analysis, literature reviews, and even writing, reducing the time and effort required for research. However, this also raises concerns about the devaluation of academic labor. If AI can perform many research tasks, the role of researchers may shift from knowledge producers to supervisors of AI systems. This could lead to changes in academic hierarchies and job structures.

In the Indian context, where contractual and precarious academic employment is already a concern, AI may exacerbate inequalities. Institutions may prioritize efficiency and cost reduction over academic autonomy and job security. From a political science perspective, this reflects broader trends of neoliberal governance, where efficiency and productivity are emphasized over critical inquiry and academic freedom.

5. Ethical and Political Challenges

The use of AI in research raises several ethical and political challenges:

a. Data Privacy and Surveillance- AI systems rely on large datasets, often including sensitive information. In Indian universities, the use of AI raises concerns about data privacy and surveillance. The collection and analysis of student and researcher data must be governed by robust ethical frameworks. Studies highlight the importance of addressing issues such as data privacy, transparency, and algorithmic bias in AI adoption.

b. Algorithmic Bias and Inequality- AI systems can reproduce existing social inequalities if trained on biased data. In a diverse society like India, this can reinforce caste, gender, and regional disparities in research outcomes and academic opportunities.

c. Academic Integrity- The use of AI in writing and research raises questions about plagiarism and academic integrity. Universities are increasingly concerned about detecting AI-generated content and maintaining research standards.

d. Political Control and Censorship- AI can also be used as a tool of political control. Governments may use AI to monitor academic research, influence research agendas, or suppress dissenting voices. This raises concerns about academic freedom and autonomy.

6. AI and Public Policy Research

AI has significant implications for public policy research in Indian universities. Political scientists can use AI to analyze policy data, evaluate government programs, and model policy outcomes. For example, AI tools can analyze large datasets related to governance, such as public expenditure, electoral behavior, and social welfare programs. This enhances the ability of researchers to provide evidence-based policy recommendations.

Recent developments illustrate how AI is being integrated into governance processes. AI-powered tools are being used to analyze legislative documents and support decision-making, making policy discussions more informed and data-driven. However, the use of AI in policy research also raises concerns about technocracy. The reliance on AI-driven analysis may reduce the role of democratic deliberation and political judgment, leading to a more technocratic approach to governance.

7. AI, Inequality, and Access in Indian Higher Education

The impact of AI on research is uneven across Indian universities. Elite institutions with better resources are more likely to adopt AI technologies, while underfunded universities may struggle to keep up. This creates a digital divide in research capabilities, reinforcing existing inequalities in the Indian higher education system. Students and researchers in rural or marginalized institutions may have limited access to AI tools, training, and infrastructure. At the same time, AI has the potential to reduce inequalities by providing access to high-quality educational resources and research tools. Initiatives aimed at democratizing AI access can help bridge the gap between elite and non-elite institutions.

8. Interdisciplinarity and the Evolution of Political Science

AI is fostering greater interdisciplinarity in research. Political science is increasingly intersecting with data science, computer science, and economics, leading to the emergence of new subfields such as computational politics and digital governance. This interdisciplinary approach enhances the analytical capabilities of political scientists but also raises questions about disciplinary identity. Traditional methods and theoretical frameworks may be overshadowed by quantitative and technical approaches. From a political science perspective, this shift reflects broader changes in knowledge production and the increasing importance of technological expertise in governance and policy-making.

9. Globalization and AI

Artificial Intelligence is reshaping the global landscape of knowledge production. Indian universities are increasingly integrated into global research networks, collaborating with international institutions and participating in global AI initiatives. However, this also raises questions about knowledge sovereignty. Dependence on global AI technologies and platforms may limit India's ability to develop independent research agendas. Recent discussions around AI highlight the importance of technological sovereignty and national capability in shaping global power dynamics. In academic contexts, this translates into debates about the ownership of knowledge, data, and research infrastructure.

10. AI and the Future of Research in Indian Universities

The future of research in Indian universities will be shaped by how AI is integrated into academic systems. Several trends are visible like:

- Increased use of AI in research design and analysis
- Greater emphasis on interdisciplinary research
- Expansion of AI-driven research infrastructure
- Development of ethical and regulatory frameworks for AI

However, challenges such as inequality, ethical concerns, and academic integrity will have to be addressed. From a political science perspective, the key question is not whether AI will transform research, but how this transformation will be governed. The role of the state, institutions, and academic communities will be crucial in shaping the future of AI in higher education.

India is a linguistically diverse country, and language plays a crucial role in knowledge production and dissemination. AI has the potential to address linguistic barriers by enabling translation, transcription, and multilingual analysis. AI-powered language tools can make research more accessible to a wider audience, including non-English speakers. This is particularly important in India, where English dominates academic discourse, often excluding scholars and communities who are more comfortable in regional languages. From a political science perspective, language is closely linked to power and representation. The dominance of certain languages in AI systems can reinforce existing hierarchies in knowledge production. Ensuring linguistic inclusivity in AI development is therefore essential for equitable research practices.

11. AI and the Role of the State in Regulating Research

The integration of AI into research has prompted increased involvement of the state in regulating academic practices. Governments are developing policies and frameworks to govern the use of AI in education and research. In India, the state plays a central role in shaping higher education through policies, funding, and regulation. The adoption of AI is closely linked to national priorities, such as digital transformation and economic development.

From a political science perspective, this raises questions about the balance between state control and academic autonomy. While regulation is necessary to address ethical and security concerns, excessive state intervention may limit academic freedom and critical inquiry. The challenge is to develop regulatory frameworks that promote innovation while safeguarding democratic values. This requires a participatory approach involving policymakers, academics, and civil society.

12. Toward a Democratic Framework for AI in Research

Given the multifaceted impact of AI on research in Indian universities, there is a need for a democratic framework to guide its integration. Such a framework should be based on principles of inclusivity, transparency, accountability, and academic freedom.

- First, inclusivity requires ensuring equitable access to AI tools and resources across institutions. This includes investing in infrastructure, training, and support for under-resourced universities.
- Second, transparency involves making AI systems and their underlying data accessible and understandable. Researchers should be aware of the limitations and biases of AI tools.
- Third, accountability requires clear guidelines on the ethical use of AI, including issues of authorship, data privacy, and academic integrity.

- Finally, academic freedom must be protected, ensuring that researchers can engage in critical inquiry without undue influence from the state or market forces.

From a political science perspective, the development of such a framework is a political process, involving negotiation between different stakeholders with competing interests. It reflects broader questions about the role of technology in society and the governance of knowledge.

Artificial Intelligence is fundamentally transforming research in Indian universities, offering new opportunities for innovation, efficiency, and interdisciplinary collaboration. However, its impact extends beyond technical advancements, raising critical political and ethical questions about power, governance, and inequality. AI is not just a tool but a site of contestation, where competing interests, values, and power structures intersect. The integration of AI into research must therefore be critically examined to ensure that it promotes inclusive, ethical, and democratic knowledge production.

As Indian universities navigate this transformation, the challenge will be to harness the potential of AI while addressing its risks. This requires a balanced approach that combines technological innovation with strong ethical frameworks, institutional accountability, and a commitment to academic freedom. The impact of AI on research in Indian universities is profound and multifaceted. It represents both an opportunity and a challenge, demanding careful consideration from scholars, policymakers, and institutions alike.

REFERENCES:

1. Brynjolfsson, E., & McAfee, A. (2017). *The business of artificial intelligence*. Harvard Business Review Press.
2. Crawford, K. (2021). *Atlas of AI: Power, politics, and the planetary costs of artificial intelligence*. Yale University Press.
3. European Commission. (2019). *Ethics guidelines for trustworthy AI*. <https://digital-strategy.ec.europa.eu>
4. Government of India. (2020). *National Education Policy 2020*. Ministry of Education. <https://www.education.gov.in>
5. Gulson, K. N., Sellar, S., & Webb, P. T. (2022). *Algorithms of education: How datafication and AI shape policy*. University of Minnesota Press.
6. IndiaAI. (2023). *Responsible AI for India: Principles and recommendations*. <https://indiaai.gov.in>
7. Kaplan, A., & Haenlein, M. (2019). Siri, Siri, in my hand: Who's the fairest in the land? On the interpretations, illustrations, and implications of artificial intelligence. *Business Horizons*, 62(1), 15–25. <https://doi.org/10.1016/j.bushor.2018.08.004>
8. Kitchin, R. (2017). Thinking critically about and researching algorithms. *Information, Communication & Society*, 20(1), 14–29. <https://doi.org/10.1080/1369118X.2016.1154087>
9. Means, B., & Neisler, J. (2020). Suddenly online: A national survey of undergraduates during COVID-19. *Digital Promise*. <https://digitalpromise.org>
10. Ministry of Electronics and Information Technology (MeitY). (2018). *National strategy for artificial intelligence (NITI Aayog discussion paper)*. <https://www.niti.gov.in>
11. Noble, S. U. (2018). *Algorithms of oppression: How search engines reinforce racism*. NYU Press.

12. Organisation for Economic Co-operation and Development (OECD). (2021). AI in education: Challenges and opportunities. <https://www.oecd.org>
13. Selwyn, N. (2019). Should robots replace teachers? AI and the future of education. Polity Press.
14. Srnicek, N. (2017). Platform capitalism. Polity Press.
15. Times of India. (2024–2025). Coverage on AI integration in Indian universities and research initiatives. <https://timesofindia.indiatimes.com>
16. UNESCO. (2021). AI and education: Guidance for policymakers. <https://unesdoc.unesco.org>
17. Zuboff, S. (2019). The age of surveillance capitalism. PublicAffairs.
18. UNESCO. (2025) <https://www.unesco.org/en/articles/unesco-survey-two-thirds-higher-education-institutions-have-or-are-developing-guidance-ai-use>
19. DIGITAL EDUCATION COUNCIL, Singapore, <https://www.digitaleducationcouncil.com/publications>