


Using or Misusing of Artificial Intelligence in Academia: A Formal Analysis


Dr. Rajneesh Kumar 

Asst. Librarian,

Doon University, Dehradun, India


 rajneeshbhan@gmail.com

<https://orcid.org/0000-0002-4448-9456>


Dr. Farzana Azim 

Library Clerk,

Higher Education of Uttarakhand, India


 azim.farzana14@gmail.com

<https://orcid.org/0009-0000-2414-4699>

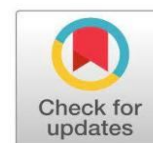
Dr. Rama Bohra 

Assistant Librarian,

Doon University, Dehradun, India

 bohrarama2016@gmail.com

<https://orcid.org/0009-0004-7467-4638>



Publication History

Manuscript Reference No: IJIRAE/RS/Vol.13/Issue04/APCS10097

Research Article | Open Access | Double-Blind Peer-Reviewed | Article ID: IJIRAE/RS/Vol.13/Issue04/CSAP26.APCS10097

Received: 30, September 2025, Revised: 02, February 2026, Accepted: 10, April 2026, Published Online: 01, May 2026.

<https://www.irjcs.com/volumes/Vol13/iss-04/17.APCS10097.pdf>

Article Citation: Dr. Rajneesh, Dr. Farzana, Dr. Rama (2026), Using or Misusing of Artificial Intelligence in Academia: A Formal Analysis, IRJCS: International Research Journal of Computer Science, Volume 13, Issue 04 of 2026 pages 558-561

Doi: <https://doi.org/10.26562/irjcs.2026.v1304.17>

BibTeX Key: Dr. Rajneesh@2026Using

IRJCS papers should be cited as IRJCS (International Research Journal of Computer Science, AM Publications, India 2026, ISSN 2393-9842, <https://doi.org/10.26562/irjcs.2026.v1304.17> The journal's official abbreviation is IRJCS.

Orcid: <https://orcid.org/0009-0004-9398-7488> About the License: Copyright © 2026 copyright by the authors. This article is an open access and license under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Abstract: The new and modern age of technology in education, focused more on the production of artificial intelligence (AI), especially generative AI (GenAI), which creates significant opportunities as well as challenges in academics. When we use it responsibly, it has great opportunities for learning from, producing quality research, providing accessibility, and supporting institutional operations. On the other side, its misuse can destroy academic integrity, reduce critical thinking, and increase unfairness. This article is focused on drawing attention to some of the major institutional policies on the use of Generative AI and some recent research, and how AI can be used and should not be used in the academic environment.

Keywords: Generative AI, Ethical use of AI, Academic misconduct, Academic Integrity, Guidelines for use of AI in Education.

INTRODUCTION

Excessive and intensive use of Artificial Intelligence (AI) is reshaping academics in society, influencing teaching/ learning, critical thinking, research production, and all the related areas of it. With the uncontrolled growth of generative models and machine learning tools it is becoming more and more sophisticated. They increasingly support content creation, personalized instruction, and analytical research tasks. However, their adoption has also raised ethical, pedagogical, and policy challenges (Floridi & Chiriatti, 2020). By accepting the seriousness of the issue, international governing bodies such as the United Nations Educational, Scientific, and Cultural Organization (UNESCO, 2021, 2023), and some of the major national and international academic institutions like Massachusetts Institute of Technology (MIT, 2024) and in India, Indian Institute of technology (IIT Delhi 2025) have developed guidelines to ensure AI is responsibly use of AI. They have also tried to balance the potential benefits of AI and the risks involved in the use of AI.

INSTITUTIONAL GUIDELINES

1. UNESCO's Ethical Framework

UNESCO Deles on promotion of education, science, culture, and communication. They set standards, produce tools and develop knowledge to create solutions to some of the greatest challenges of our time, and to identify AI as a boon as well as a great risk. They gave guidelines of Recommendation on the Ethics of Artificial Intelligence, emphasizing human rights, transparency, fairness, and accountability in AI deployment (UNESCO, 2021). Its Guidance for Generative AI in Education and Research advocates for human-centred, pedagogically relevant approaches, highlighting data privacy, ethical negligence, and equitable access as foundational principles (UNESCO, 2023).

2. Institutional Policy: The MIT Example

MIT, as we all know, is consistently ranked among the top universities in the world, renowned for its academic programs, innovative research, and influential faculty.

On the other hand, they are sensitive enough towards the issue and produce policies emphasizing information security, data privacy, intellectual property rights, and academic honesty. These policies emphasize that AI-generated content be properly attributed and aligned with institutional standards (MIT, 2024).

How We Should Use AI in Academics

1. Learning Enhancement

Artificial Intelligence, or the use of generative AI-based platforms, can customize learning experiences, and they offer personalized assistance to serve individual needs and learning styles (Yan et al., 2023). Artificial Intelligence (AI) is continuously available to support problem-solving in academic contexts. It functions as an interactive tutor, providing step-by-step guidance and explanations. AI enhances engagement by transforming complex or monotonous topics into more accessible and interesting content through simulation, visualization, and gamification techniques. It also helps bridge language barriers by enabling translation and multilingual support.

2. Research Support

Generative AI in the present day can assist researchers in performing literature reviews, data analysis, and visualization, detecting plagiarism, managing citations, and analyzing large datasets with high accuracy. That helps scholars in focusing on critical interpretation and developing new theories. (Yan et al., 2023). While there has been significant progress in the development of AI technologies in recent years, the potential of AI in research is by far not yet fully realized and many opportunities remain unused. We see important and welcome trends in research, such as the use of open science practices, where researchers make their data, code and methods available to others. This procedure enables greater transparency, reproducibility and collaboration in research. Additionally, we see a growing emphasis on using rigorous experimental design and statistical methods to validate research findings. This experimentation includes using randomized controlled trials, large sample sizes and powerful statistical methods to improve the accuracy and generalizability of research findings. (Ramachandran et al., 2021).

3. Accessibility and Inclusivity

AI-powered tools like text-to-speech software, translation systems, and assistive technologies enhance educational accessibility for learners with disabilities or language barriers (UNESCO, 2023). This technological integration fosters an equitable academic environment where complex information is democratized across varied learner demographics.

4. Administrative and Pedagogical Efficiency

AI can automate tasks such as grading, scheduling, and resource management, enabling educators to allocate more time to mentorship, creative teaching, and research (MIT, 2024). Traditionally, administrative work in educational institutions has relied on manual processes and scattered data systems. These methods are often slow and inefficient, which hurts overall productivity. As the number of students grows and government rules become stricter, it is becoming very difficult for schools and colleges to keep their operations running smoothly. Through manually Integrating Artificial Intelligence (AI) into administrative tasks offers a real solution to these problems. AI systems can simplify work, make data more accurate, and provide important information for better decision-making. These systems help by:

- **Automating Tasks:** Handling repetitive daily chores automatically to save time.
- **Data Management:** Managing large amounts of student information easily.
- **Predicting Trends:** Forecasting future needs so that resources (like staff and funds) are used more effectively.

By using AI-based solutions, educational institutions can make their administration stronger and reduce unnecessary costs. This shift creates a more efficient, data-driven environment where the focus can remain on quality education. (Suman Deep, Karthik Athimoolam, Tenny Enoch, 2024)

5. Digital Literacy and Critical Thinking

Engaging with AI critically fosters digital literacy. Students learn to question outputs, verify information, and understand algorithmic limitations—skills vital in a technology-driven society (Tarighi Shaayesteh et al., 2025). Consequently, AI acts as a catalyst for improving both teacher well-being and the quality of student-instructor engagement.

How We Should Not Use AI in Academics

1. Replacing Original Thought

Using AI to complete assignments or write research papers without human input undermines intellectual development and creativity (Floridi & Chiriatti, 2020). With the advent of AI technology, there are concerns that this critical thinking ability could be reduced. AI's ability to process information quickly and generate text with certain patterns often tempts users to accept the results without further reflection or evaluation. This potentially reduces the individual's role in deep intellectual processes, which should be at the core of academic writing (Marzuki et al., 2023).

2. Plagiarism and Misrepresentation

Submitting AI-generated content as original work violates academic integrity policies. Proper attribution and acknowledgment are essential (MIT, 2024). Many people don't realize that AI often writes sentences that are very similar to existing books or articles. When you use AI text as your own, you are breaking the rules of academic honesty. This doesn't just get the individual in trouble; it also makes people lose trust in schools and the entire learning community. (Budhwar, P. et al., 2023).

3. Overreliance and Skill Erosion

Excessive dependence on AI may impede the development of analytical and problem-solving skills, limiting students' capacity for independent reasoning (Tarighi Shaayesteh et al., 2025). When students let AI do all their work, they stop practicing how to think for themselves. It is like always using a car for short walks; eventually, your legs get weak.

If you don't use your own brain to solve hard problems, you lose the skill to do it when you don't have technology to help you. (Bogdanović-Dinić, S., 2024)

4. Ignoring Bias and Limitations

AI outputs can reflect biases present in training data. Accepting AI-generated results without verification risks misinformation and flawed research (Yan et al., 2023).

5. Un-ethical Risk or Hidden Sources

AI often fails to show exactly where it got its information. Without knowing the original source, it is very difficult to check if the information is true or just made up. By the data base created by its owner or the mind-set from which the AI tool is been developed. AI can sometimes be biased (unfair) because it learns from incomplete data. If we accept these results without checking them, it can lead to unfairness or wrong ideas in society and education. (Jobin, et.al, 2019)

6. Neglecting Human Interaction

AI cannot replace the mentorship, empathy, and collaborative learning that characterize effective education. Overuse of AI risks reducing meaningful human engagement (Nyaaba, 2024).

Case Studies and Empirical Evidence

1. Systematic Review of Large Language Models

A review of 118 studies on AI in education identified recurring challenges: low technological readiness, lack of transparency, insufficient privacy safeguards, and limited attention to ethical principles. Human-centered design and rigorous evaluation were recommended (Yan et al., 2023).

2. Teacher Education in Developing Contexts

Research in Ghana demonstrated AI's potential to address gaps in teacher content knowledge but cautioned against its misuse, recommending structured AI literacy programs (Nyaaba, 2024).

3. AI Identity and Unethical Use

Tarighi Shaayesteh et al. (2025) found that students' identification with AI influences both positive engagement and potential misuse. However, "IT mindfulness" mitigates unethical behavior.

Institutional Policy Reform: Jawaharlal Nehru University (JNU)

JNU updated its research policies to regulate AI-generated content, mandating that such work comply with plagiarism norms and be subject to similarity checks (Times of India, 2025).

Guidelines for Responsible Use

Guideline	Principle	Application
Transparency & Attribution	Academic honesty	Disclose AI use in research and coursework.
Human Oversight	Accountability	Verify AI outputs with credible sources.
Bias Awareness	Fairness	Audit datasets and assess for bias.
Preservation of Skills	Intellectual development	Balance AI use with critical thinking exercises.
Privacy & Equity	Ethical responsibility	Ensure compliance with data protection laws and equitable access.
Adaptive Policy	Continuous improvement	Regularly update institutional policies to reflect evolving technologies.

DISCUSSION

While ethical frameworks provide guidance, successful implementation depends on institutional culture, assessment design, and AI literacy education. Assessments should evolve to include oral defenses, project-based evaluations, and collaborative tasks to reduce the risk of AI misuse (Floridi & Chiriatti, 2020). Encouraging critical engagement with AI, rather than outright prohibition, better prepares students for future academic and professional environments. The discussion shows that using AI in education is a big responsibility. AI has the power to change how we learn by making education more personal and creative. However, because it is so powerful, we must use it very carefully.

CONCLUSION

AI is a transformative force in education, offering tools that can enhance learning, streamline research, and promote inclusivity. However, misuse can undermine the very goals of education by compromising integrity, diminishing human creativity, and perpetuating bias. By following established frameworks, fostering digital literacy, and maintaining strong ethical standards, institutions can ensure that AI serves as a catalyst for intellectual growth rather than a substitute for it. AI has two sides. On one hand, it can make learning better for everyone and help people who were left behind. On the other hand, if we don't control it, AI can lead to unfairness and repeat old biases. It can accidentally make things harder for students who are already struggling. Fixing problems like bias in AI is not just a job for computer scientists. It is a shared duty for everyone—teachers, leaders, and society. We must work together to reduce risks and use AI to create a fair and inclusive learning world. Today, we are at a crossroads. We must choose a path that values fairness, honesty, and accountability. Our goal is to make sure that AI-based education empowers every student and maintains strong moral values.

REFERENCES

1. Budhwar, P., Chowdhury, S., Wood, G., Aguinis, H., Bamber, G. J., Beltran, J. R., & Varma, A. (2023). Human resource management in the age of generative artificial intelligence: Perspectives and research directions on ChatGPT. *Human Resource Management Journal*, 33(3), 606–659. <https://doi.org/10.1111/1748-8583.12524>
2. Bogdanović-Dinić, S. (2024, January 4). Critical Time for Critical Thinking: Is AI Making Us Dull? | HTEC | HTEC. HTEC. <https://htecgroup.com/is-ai-making-us-dumb/>
3. Floridi, L., & Chiriatti, M. (2020). GPT-3: Its nature, scope, limits, and consequences. *Minds and Machines*, 30(4), 681–694. <https://www.doi.org/10.1007/s11023-020-09548-1>
4. Jobin, A., Ienca, M., & Vayena, E. (2019). The global landscape of AI ethics guidelines. *Nature Machine Intelligence*, 1(9). <https://www.doi.org/10.1038/s42256-019-0088-2>
5. Massachusetts Institute of Technology. (2024). *Guidance for use of generative AI tools*. MIT Information Systems & Technology. <https://www.ist.mit.edu/ai-guidance>
6. Marzuki, W., Rusdin, U., Darwin, D., & Indrawati, I. (2023). The impact of AI writing tools on the content and organization of students' writing: EFL teachers' perspective. *Cogent Education*, 10(2), 1–17. <https://www.doi.org/10.1080/2331186X.2023.2236469>
7. Nyaaba, M. (2024). Transforming teacher education in developing countries: The role of generative AI in bridging theory and practice. *arXiv Preprint*. <https://www.arxiv.org/abs/2411.10718>
8. Ramachandran, R., Bugbee, K. and Murphy, K. (2021), "From open data to open science", *Earth and Space Science*, Vol. 8 No. 5, e2020EA001562.
9. Suman Deep, Karthik Athimoolam, Tenny Enoch "International Journal of Current Science Research and Review", Volume 07 Issue 10 October 2024, <https://www.doi.org/10.47191/ijcsrr/V7-i10-34>
10. Tarighi Shaayesteh, M., Memarian Esfahani, S., & Mohit, H. (2025). AI identity, empowerment, and mindfulness in mitigating unethical AI use. *arXiv Preprint*. <https://www.arxiv.org/abs/2503.20099>
11. Times of India. (2025, March 23). JNU school edits rulebook for AI in research: Plagiarism check to apply. *The Times of India*. <https://timesofindia.indiatimes.com/city/delhi/jnu-school-edits-rulebook-for-ai-in-research-plagiarism-check-to-apply/articleshow/124129295.cms>
12. UNESCO.(2021).Recommendation on the ethics of artificial intelligence. UNESCO Publishing. <https://www.dataviz.unesco.org/en/artificial-intelligence/recommendation-ethics>
13. UNESCO. (2023). Guidance for generative AI in education and research. UNESCO Publishing. <https://www.unesdoc.unesco.org/ark:/48223/pf0000386117>
14. Yan, L., Sha, L., Zhao, L., Li, Y., Martinez-Maldonado, R., Chen, G., Li, X., Jin, Y., & Gašević, D. (2023). Practical and ethical challenges of large language models in education: A systematic scoping review. *arXiv Preprint*. <https://www.arxiv.org/abs/2303.13379>