

Artificial Intelligence in Higher Education: A Student-Centered Study

Dr K Rajalakshmi¹, Ms J N Chelsea², Ms A Asra Afreen³

¹M.A, M.Phil., Ph.D, Assistant Professor, Department of Economics,
Chevalier T Thomas Elizabeth College for Women, Chennai. India

^{2,3}II B. Com (G), Chevalier T Thomas Elizabeth College for Women, Chennai

Abstract—Artificial Intelligence (AI) has emerged as a transformative force in higher education, offering new possibilities for personalized learning, academic support, and student engagement. This study investigates undergraduate students' perceptions of AI tools and their usefulness in academic activities. The research focuses on key areas such as understanding complex subject matter, supporting non-native English learners, facilitating idea generation, and assisting with study time management. A descriptive research design was adopted, and primary data were collected through a structured questionnaire administered to 25 undergraduate students using a three-point Likert scale. Secondary sources were also consulted to understand current developments in AI-enabled education.

The analysis indicates that most students view AI tools as helpful in improving comprehension, learning efficiency, and academic productivity. Respondents particularly appreciated AI's role in personalized learning and quick access to information. At the same time, the findings point to concerns about excessive dependence on AI and the need for ethical awareness. The study concludes that AI can significantly enrich higher education when used responsibly and supported by appropriate institutional policies and digital literacy initiatives.

Index Terms—Artificial Intelligence, Higher Education, Student Attitudes, Personalized Learning, Educational Innovation.

I. INTRODUCTION

Artificial Intelligence or AI is when computers can do things that normally humans do, like learning, solving problems, and making decisions. It's a way to make machines smart so they can help us with various tasks and make our lives easier. AI isn't the same as human intelligence, it's more like a super smart tool that can do specific tasks really well, but it doesn't think or feel like we do. AI is a technology that helps computers do

smart things like understand language, analyze data, and make suggestions.

AI is a powerful tool that helps people and businesses innovate and get valuable insights. For example, AI can read text from images and documents, making it useful for many tasks.

Artificial Intelligence can be categorized into different stages, like Reactive Machines that simply react to situations, Limited Memory that learns from past experiences, Theory of Mind that understands human thoughts and emotions, and Self-Aware AI that has consciousness and awareness of its own existence.

AI in Education

Teachers and school leaders can use AI to analyze lots of data, which helps them make better decisions. AI is also helping students with different needs and learning styles by providing special tools. As AI continues to improve, it could make education even better, leading to more personalized and effective learning. Teachers can use AI tools to help plan lessons and create learning materials. These tools can quickly generate plans and materials based on the teacher's ideas, saving time and effort. This can lead to more engaging learning experiences that cater to the individual needs and preferences of students.

AI is changing education in big ways. It's making learning more personalized and efficient. AI is helping teachers and students by offering new ways to learn, making administrative tasks easier, improving educational results, providing smart tutoring and classroom management tools. This is having a big impact on education, helping both teachers and students.

AI among Youth

Today's students are tomorrow's innovators, and they need the right skills and resources to understand Artificial Intelligence (AI). AI is changing the world, and young people need to know what it is, how it's designed, and why it's important. By demystifying and democratizing AI in an inclusive way, we can empower young minds to harness its potential, drive creativity, and solve real-world problems.

AI can help youth learn new skills, solve problems, and create new things. It's also important for young people to understand how AI works, its benefits, and its limitations. By learning about AI, youth can be prepared for the future, take advantage of opportunities, and create a future where AI benefits everyone, not just a select few. This will help young innovators thrive in today's digital world and shape a brighter future for all.

AI on the Present Youth:

AI has a significant impact on today's youth, particularly Gen Y and Gen Z, by reshaping their educational experiences, influencing their social development, and redefining the skills they'll need to thrive in the future job market. These groups are not only depending on AI Tools for their day-to-day routine uses but also actively engage in exploring and advancing the cutting-edge AI systems. AI's presence is like a double-edged sword, profoundly shaping their education, career paths, and personal well-being. AI's influence is extensive, impacting key areas such as education, automation, robotics, healthcare, business and across multiple sectors.

In the job market, AI is automating many entry-level positions, a trend that could make securing a career start more difficult, yet it simultaneously creates a strong demand for individuals who can effectively collaborate with AI and possess distinctly human skills such as creativity, emotional intelligence, and adaptability. Furthermore, AI tools can act as creative partners, helping young people brainstorm ideas, produce art, and innovate, ultimately empowering them with the digital literacy and creative confidence necessary to succeed in a technology-driven world.

Factors Influencing Artificial Intelligence

The development and use of Artificial Intelligence depend on a few things like technology and people and institutions. Artificial Intelligence performance and

how well it is adopted are shaped by how good the data's how strong the computers are, how good the algorithms are, if we have skilled people and if we have good infrastructure. Ethics and if people accept it also play a role especially in schools and universities.

1. Data Availability and Quality

Artificial Intelligence systems need a lot of data to work well. If we have accurate datasets the models work better but if the data is bad or biased the results are not good. In schools and universities, we need to handle student data and academic data so Artificial Intelligence can really help.

2. Computing Power

Artificial Intelligence, the kind that learns deeply needs strong computers. If we have computers and cloud platforms, we can train Artificial Intelligence faster and use it on a big scale. Schools and universities with digital infrastructure can use Artificial Intelligence tools more effectively.

3. Machine Learning Models and Algorithms

How well Artificial Intelligence works depends on how good its algorithms and models are. There are ways to make Artificial Intelligence learn, like supervised and unsupervised learning. We need to keep making the models better and choose the ones so Artificial Intelligence is accurate and fair.

4. Human Skills and Expertise

People are still very important for making and watching over Artificial Intelligence systems. We need people who can make sure Artificial Intelligence is used for good things. If we do not have people who know what they are doing it can be hard to make Artificial Intelligence work.

5. Infrastructure and Funding

We need internet, safe data systems and people who can help us with technology, for Artificial Intelligence to work. Since Artificial Intelligence costs a lot, we need to keep putting money into it and work with people to make it bigger and better.

6. Ethics, Transparency and Regulation

Artificial Intelligence needs to be fair, transparent and respectful of people's privacy. In schools and universities, we need to make sure student data and academic integrity are safe. If we have rules people will trust Artificial Intelligence more.

7. Social Adoption

If people trust and understand Artificial Intelligence it will be used more. If people are scared of Artificial Intelligence because of privacy or job loss it will be hard to make them use it. We need to teach people about Artificial Intelligence and make it easy to use so they will accept it in schools and universities.

To use Artificial Intelligence well in schools and universities we need to have data, strong computers, skilled people, ethics and institutions that are ready. Artificial Intelligence is important. We need to make sure we use it in a way that helps people. We need to think about Artificial Intelligence and how it can help us in education.

II. OBJECTIVES OF THE STUDY

- To examine the extent to which students consider AI Tools develop their understanding of complex material and academic well-being.
- To analyse student viewpoints about the effect of AI on higher education is more conventional personalized compared to teaching method.
- To explore the productiveness of AI for non-native English speakers can help them to overcome their language barriers and improve their language skills and grammar.
- To evaluate the perceived use of AI in supporting students with brainstorming and generating ideas for academic projects and essays.
- To investigate the role of AI in assisting students with study time management through the creation of schedules and reminders

III. RESEARCH DESIGN:

The study used a descriptive research design to examine student's perceptions, opinions, attitudes and benefits in the use of Artificial Intelligence (AI) in higher education. This design was selected because it allows the researcher to systematically explain the major viewpoints and help students have a better experience without changing the study environment.

IV. DATA SOURCES:

A questionnaire made with Google Forms helped collect data. It had 25 questions with three options: Agree, Neutral, Disagree. We wanted to know how AI

tools affect students learning, efficiency and academic growth. So, we got answers from 25 students in different departments. We also looked at existing information from the internet to see how AI is used in education now. We checked educational tech websites, top AI makers and top universities for insights into AI use and trends. We used percentages to analyse survey answers. For each question we. Showed response distribution, with pie charts and bar charts to make it clearer.

Sample Size: The survey was conducted among a total of 25 undergraduate students from various departments. This sample was selected to demonstrate how college students perceive the online tool of Artificial Intelligence (AI).

V. SCOPE:

The study's scope is to investigate the role of Artificial Intelligence (AI) in higher education, with a focus on the benefits that it offers students, including improved learning efficiency, stress reduction, test preparation and personalized learning.

VI. LIMITATION:

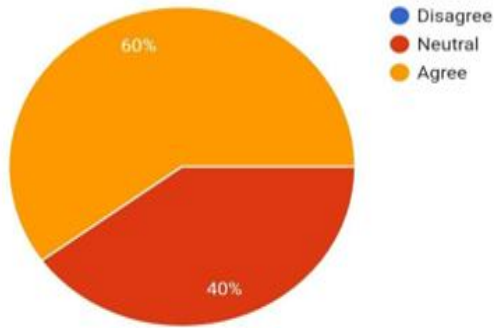
The study is limited to a small sample size of 25 students and restriction to a single college limit the significance to a larger population. Furthermore, due to the privately collected responses, there is also possibility of bias in the answers.

VII. RESULTS

Simplifying Complex Course Material through AI Tools

Disagree	0%
Agree	60%
Neutral	40%

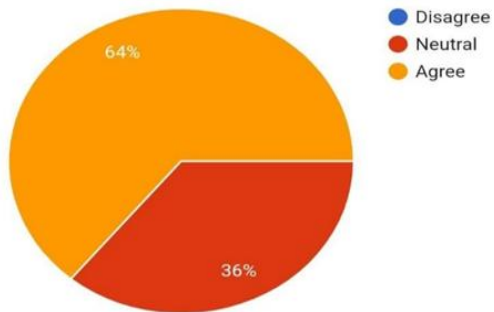
From the above table, a majority of respondents (60%) selected Agree, indicating that most students feel AI tools improve their understanding of course material. The remaining 40% were Neutral, suggesting that although many students recognize the benefits of AI, some still rely on conventional learning approaches.



AI Improves Academic Well-Being

AI assistance generally improves my academic well-being by reducing stress and workload.

Response	Percentage
Disagree	0%
Agree	64%
Neutral	36%

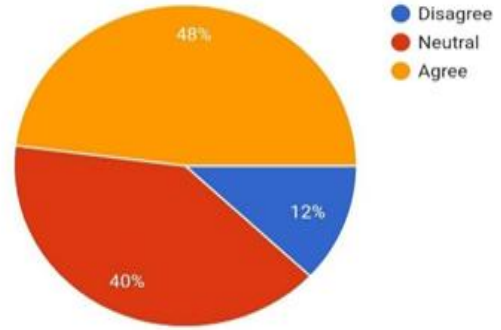


Interpretation:

From the above table, it is observed that 64% of students agreed that AI reduces stress and workload, while 36% remained neutral. Overall, most students believe that AI helps in managing academic pressure effectively, though the neutral responses indicate that some may not fully experience these benefits.

Using AI for Assignments Lowers my Confidence:
Relying on AI for assignments makes me feel less confident about my own understanding of the subject.

Response	Percentage
Disagree	12%
Agree	48%
Neutral	40%

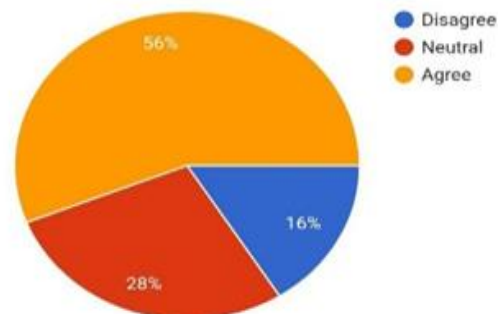


Interpretation:

From the table, 48% of students agreed, 40% remained neutral, and 12% disagreed. Nearly half of the students are concerned about becoming too dependent on AI, indicating worries that it may reduce their confidence in their subjects. However, a significant proportion of students are either uncertain or feel unaffected.

Data Privacy Concerns in the Use of AI Platforms for Academic Purposes

Response	Percentage
Disagree	16%
Agree	56%
Neutral	28%



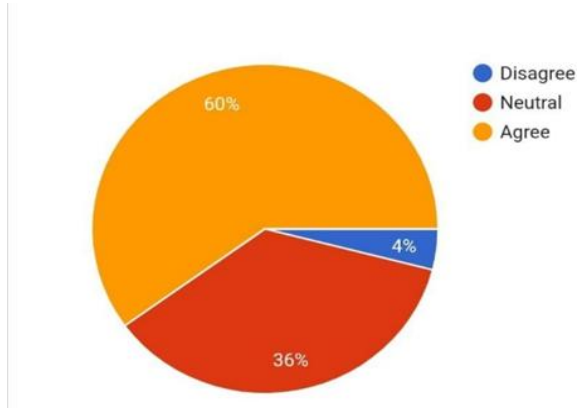
Interpretation:

The data indicates that 56% of respondents expressed concerns about data privacy, while 28% remained neutral and 16% disagreed. This suggests that privacy is a significant issue when integrating AI into education.

AI Tools Improve Error Correction Compared to Traditional Methods

AI tools are more effective than traditional methods for identifying and correcting mistakes in my academic work.

Response	Percentage
Disagree	4%
Agree	60%
Neutral	36%



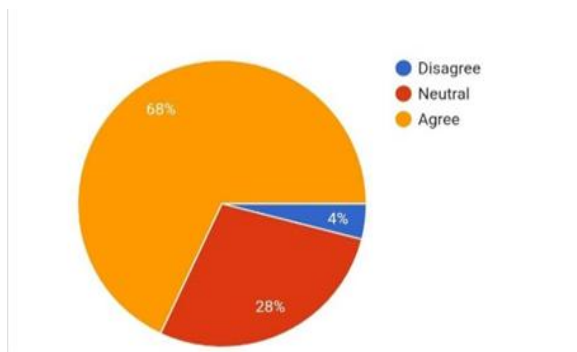
Interpretation:

From the table, it is evident that 60% agreed AI is more effective, 36% remained neutral, and only 4% disagreed, indicating strong support for AI as a tool for error checking.

Dependence on AI Hinders Students' Critical Thinking and Problem-Solving Skills

Dependence on AI tools negatively impacts the development of students' critical thinking and problem-solving skills.

Response	Percentage
Disagree	4%
Agree	68%
Neutral	28%

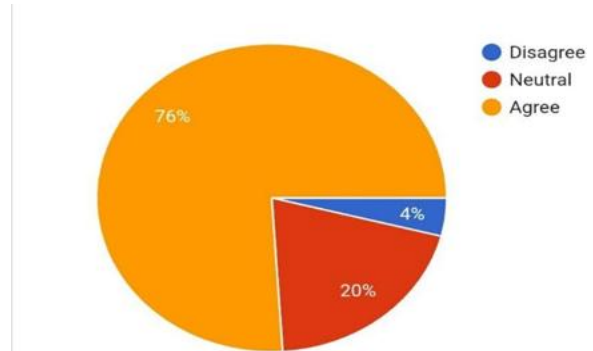


Interpretation:

From the table, 68% agreed that reliance on AI may harm critical thinking, 28% were neutral, and 4% disagreed, indicating that most students are aware of the potential drawbacks of overdependence on AI.

Using AI for Tasks to Optimize Efficiency
Using AI in administrative tasks (e.g., applications, university-related emails) improves my efficiency.

Response	Percentage
Disagree	4%
Agree	76%
Neutral	20%

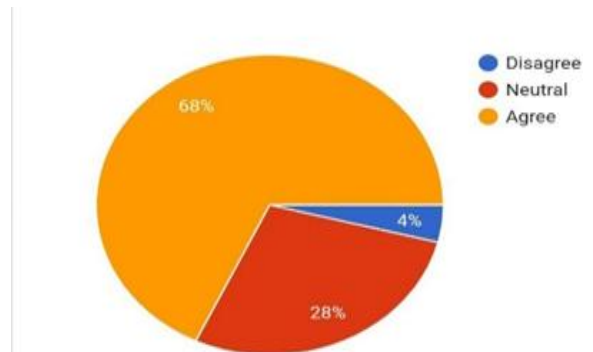


Interpretation:

From the table, 76% agreed that AI improves administrative efficiency, 20% were neutral, and 4% disagreed, indicating that most respondents value AI for saving time on routine academic tasks.

AI Support for Non-Native English Speakers
AI effectively lowers barriers for non-native English speakers by improving language and grammar in academic contexts.

Response	Percentage
Disagree	4%
Agree	68%
Neutral	28%



Interpretation:

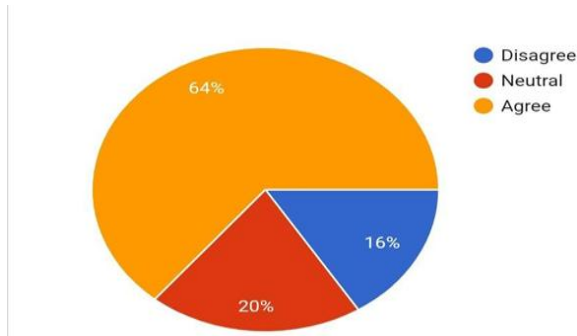
From the table, the responses indicate that students perceive AI as a useful tool for language support, especially in enhancing grammar and communication,

highlighting its potential to reduce language barriers and promote inclusivity in higher education.

AI and Exam Preparation

AI has changed how I prepare for exams for the better.

Disagree	16%
Agree	64%
Neutral	20%



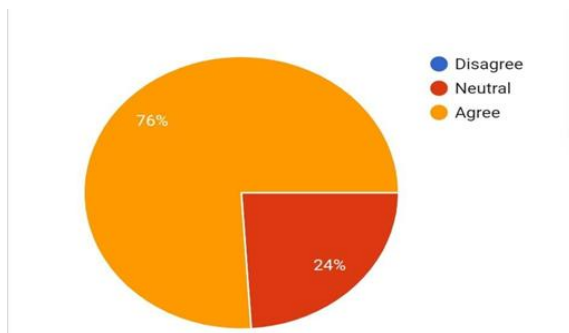
Interpretation:

From the table, it is evident that most students believe AI has a positive impact on their exam preparation, making their study process more focused and efficient. This highlights AI's practical value in supporting academic success, as students increasingly rely on it to enhance learning outcomes.

AI Tools: Accessible and Beneficial to All Students

AI Tools are equally accessible and beneficial to all students, regardless of their background.

Disagree	0%
Agree	52%
Neutral	48%



Interpretation:

From the table, it is emphasized that most students consider AI tools accessible and beneficial for learning, though some believe their effectiveness

depends on users' digital skills and level of engagement. This suggests that while AI is broadly inclusive, it does not benefit all learners equally. Individual behaviour plays a key role in how effectively AI is used, and ensuring equitable access remains important.

VIII. CONCLUSION

The study focused on exploring the role and impact of AI in higher education from the students' perspective. The research identified that AI was found to be an effective resource that optimizes the learning effectiveness, reduces stress and load, helps prepare for exams, and enables personalized learning opportunities. AI was also acknowledged by the students to contribute to increasing administrative efficiency and ensuring that individuals who do not speak English as a first language do not become second class citizens in society.

At the same time, the research cited some negative aspects such as diminution of critical thinking, over-reliance on AI and access and data privacy issues. These findings suggest that while AI has the power to revolutionize higher education, the need for advice, the moral implications and provision of digital literacy training need to be considered.

Hence, AI does not stop at offering a unique learning experience to the students; it has become the learning assistant that enables them to learn effectively, cope better and adapt to the current learning scenario. This will enable its potential to be realized and available to all, but only if institutions offer clear policies, promote responsible use, and an equal footing for all learning in involved.

REFERENCES

- [1] Intel, "Technologies to enable artificial intelligence (AI) in higher education," [Online]. Available: <https://www.intel.com/content/www/us/en/education/highered/artificial-intelligence.html>. [Accessed: Aug. 28, 2025].
- [2] S. N. Akinwalere and V. T. Ivanovo, "Artificial intelligence in higher education: Challenges and opportunities," *Border Crossing*, vol. 12, no. 1, pp. 1–15, 2022, doi: 10.33182/bc.v12i1.2015.
- [3] S. Mukhopadhyay and A. Chakrabarti, "A

- review on the impacts of artificial intelligence (AI) on youth,” in *Handbook of Youth Development*, Cham, Switzerland: Springer, 2023, pp. 195–207, doi: 10.1007/978-981-99-4969-4_11.
- [4] United Nations Regional Information Centre for Western Europe (UNRIC), “The AI generation: Youth in the artificial intelligence era,” Jul. 14, 2025. [Online]. Available: <https://unric.org/en/the-ai-generation-youth-in-the-artificial-intelligence-era/>. [Accessed: Aug. 28, 2025].
- [5] Google Cloud, “Cloud computing services | Google Cloud,” [Online]. Available: <https://cloud.google.com/>. [Accessed: Aug. 28, 2025].
- [6] University Canada West, “Advantages and disadvantages of AI in education,” [Online]. Available: <https://www.ucanwest.ca/blog/education-careers-tips/advantages-and-disadvantages-of-ai-in-education>. [Accessed: Aug. 28, 2025].
- [7] Sabey Data Centers, “Key factors driving the AI market,” [Online]. Available: <https://sabeydatacenters.com/news/7-key-factors-driving-the-ai-market>. [Accessed: Aug. 28, 2025].
- [8] Z. Bronfman, “Your AI checklist: 3 keys for success,” Pecan AI, May 16, 2024. [Online]. Available: <https://www.pecan.ai/blog/your-ai-checklist-3-keys-for-success/>. [Accessed: Aug. 28, 2025].
- [9] iQuasar Software, “AI readiness: Key factors for successful implementation,” 2025. [Online]. Available: <https://software.iquasar.com/blog/ai-readiness-key-factors>. [Accessed: Aug. 28, 2025].
- [10] N. Díaz-Rodríguez *et al.*, “Connecting the dots in trustworthy artificial intelligence: From AI principles, ethics, and key requirements to responsible AI systems and regulation,” *arXiv preprint*, 2023, doi: 10.48550/arXiv.2305.02231.
- [11] “Ethics of artificial intelligence,” *Wikipedia*, [online]. Available: https://en.wikipedia.org/wiki/Ethics_of_artificial_intelligence. [Accessed: Aug. 28, 2025].
- [12] S. Russell and P. Norvig, *Artificial Intelligence: A Modern Approach*, 4th ed. Upper Saddle River, NJ, USA: Pearson, 2021.
- [13] W. Holmes, M. Bialik, and C. Fadel, *Artificial Intelligence in Education: Promises and Implications for Teaching and Learning*. Boston, MA, USA: Center for Curriculum Redesign, 2019.
- [14] R. Luckin, W. Holmes, M. Griffiths, and L. Forcier, *Intelligence Unleashed: An Argument for AI in Education*. London, U.K.: Pearson, 2016.
- [15] UNESCO, *Recommendation on the Ethics of Artificial Intelligence*. Paris, France: UNESCO, 2021.
- [16] OECD, *OECD Principles on Artificial Intelligence*. Paris, France: OECD, 2019.