

Ethical Challenges in the Use of AI Tools Among College Students in Pollachi Taluk

Dr. P.Gomathi Devi

Assistant Professor, UG Department of Commerce CA
NGM College, Pollachi

Abstract

Artificial Intelligence (AI) tools have become an integral part of higher education by supporting students in learning, research, assignments, and academic activities. However, the increasing use of AI tools has also raised several ethical challenges related to academic integrity, plagiarism, originality, privacy, and the responsible use of AI-generated content. The present study aims to identify the challenges faced by college students towards the ethical use of Artificial Intelligence (AI) tools in higher education and to offer suitable suggestions for promoting their ethical and responsible use. The study was conducted among 300 College students in Pollachi Taluk using a descriptive research design and a convenience sampling technique. Both primary and secondary data were used for the study. Primary data were collected through a structured questionnaire, while secondary data were obtained from books, journals, research articles, and authentic online sources. The collected data were analysed using Percentage Analysis, Chi-Square Test, and Ranking Analysis. The findings reveal that students experience several challenges in the ethical use of AI tools, particularly in determining the ethical acceptability of AI-generated content, avoiding plagiarism, maintaining originality, and evaluating the reliability of AI-generated information. The study concludes that educational institutions should strengthen AI ethics awareness, establish clear institutional guidelines, and promote responsible AI usage to ensure academic integrity and ethical learning practices among students.

Keywords: Artificial Intelligence, Ethical Use of AI, Higher Education, College Students, Academic Integrity, Plagiarism, etc.,

Introduction

Artificial Intelligence (AI) has emerged as one of the most significant technological advancements in the field of education. AI-powered tools such as ChatGPT, Google Gemini, Microsoft Copilot, Grammarly, QuillBot, and other intelligent learning applications have transformed the way students' access information, complete academic tasks, and develop knowledge. These tools provide instant assistance in generating ideas, improving writing, solving complex problems, summarizing content, and supporting independent learning. As a result, higher education institutions are increasingly witnessing the integration of AI technologies into teaching and learning processes, enabling students to enhance their academic performance and learning efficiency.

Despite the numerous benefits offered by AI tools, their increasing use has raised several ethical concerns in higher education. Students often face challenges in understanding the appropriate and responsible use of these technologies. Excessive dependence on AI-generated content may reduce critical thinking, creativity, and problem-solving abilities. Furthermore, issues such as plagiarism, academic dishonesty, misinformation, privacy and data security, copyright infringement, and lack of transparency in AI-generated outputs have become major concerns for educators and educational institutions.

The ethical challenges associated with AI are particularly important among undergraduate students, who are in the formative stage of developing academic skills and professional values. While AI tools can serve as effective learning companions, many students may not possess adequate awareness of ethical guidelines governing their use. Limited digital literacy, insufficient institutional policies, peer influence, and the pressure to achieve academic success

may encourage the misuse of AI technologies. Therefore, understanding students' challenges in using AI ethically is essential for promoting responsible digital behaviour and maintaining the quality and credibility of higher education.

Commerce students represent a significant segment of higher education, as they are expected to acquire analytical, managerial, financial, and decision-making skills that are essential for their future careers. The widespread availability of AI tools has influenced how commerce students prepare assignments, conduct research, analyse business data, and complete academic projects. While these technologies improve learning efficiency, they also create ethical dilemmas regarding originality, accountability, and independent learning. Identifying the challenges faced by UG Commerce students in the ethical use of AI tools will help educational institutions design appropriate policies, awareness programmes, and training initiatives to encourage responsible AI usage.

Pollachi Taluk, a prominent educational and commercial region in Tamil Nadu, comprises several higher educational institutions offering undergraduate commerce programmes. Students in this region are increasingly adopting AI-enabled applications for academic purposes due to improved internet connectivity and digital accessibility. However, the extent of ethical awareness, the nature of challenges encountered, and the factors influencing responsible AI usage among UG Commerce students remain relatively unexplored. Conducting a study in this context will provide valuable insights into students' perceptions and challenges regarding the ethical use of AI tools in higher education.

Review of Literature

The rapid advancement of Artificial Intelligence (AI) has significantly transformed higher education by providing innovative tools that enhance teaching, learning, assessment, and academic research. AI-powered applications such as ChatGPT, Google Gemini, Microsoft Copilot, Grammarly, and QuillBot have become increasingly popular among university students for academic writing, content generation, problem-solving, and personalized learning. While these technologies offer numerous educational benefits, they also raise ethical concerns related to academic integrity, plagiarism, privacy, transparency, and responsible use. Consequently, several researchers have examined students' perceptions, ethical challenges, and institutional responses to the use of AI in higher education.

Ming Li, Ariunaa Enkhtur, Fei Cheng, and Beverley Anne Yamamoto (2023) conducted a scoping review on the ethical implications of ChatGPT in higher education. The study revealed that academic integrity, assessment fairness, and data protection are the most frequently discussed ethical concerns associated with AI use. The authors emphasized the need for educational institutions to develop ethical policies and promote empirical research to ensure the responsible adoption of AI technologies in teaching and learning.

Charmaine Bissessar (2023) explored students' and faculty members' perspectives on the use of ChatGPT and other AI tools in higher education through a qualitative study. The findings indicated that AI applications improve learning efficiency, academic writing, and productivity. However, concerns regarding plagiarism, academic dishonesty, originality, and overdependence on AI-generated content were also identified. The study recommended the formulation of institutional guidelines and ethical training programmes to encourage responsible AI usage.

Ryan Thomas Williams (2024) examined the ethical implications of generative chatbots in higher education and highlighted that AI technologies present both opportunities and challenges. The study identified plagiarism, AI-generated misinformation, academic misconduct, and the need to redesign assessment methods as major ethical issues. The author suggested that higher education institutions should strengthen academic integrity policies and educate students on the ethical use of generative AI tools.

Joshua Ebere Chukwuere (2024) reviewed the advantages and disadvantages of ChatGPT in higher education. The study found that AI enhances personalized learning, provides instant feedback, improves student engagement, and supports academic writing. Nevertheless, it also identified challenges such as excessive dependence on AI, reduced

critical thinking, technological limitations, and ethical concerns regarding originality and academic honesty. The author concluded that AI should complement, rather than replace, independent learning and critical thinking.

Ons Al-Shamaileh, Ramy Hammady, Mahmoud Abdelrahman, and Omar Mubin (2026) conducted a systematic review of 109 studies on AI chatbots in higher education. The review identified academic integrity, privacy and data security, algorithmic bias, overreliance on AI systems, and inaccurate AI-generated information as the major ethical concerns. The authors recommended enhancing AI literacy, establishing institutional policies, and implementing ethical awareness programmes to ensure the responsible use of AI tools among students and educators.

Objectives of the study

- To identify the challenges faced by College students towards the ethical use of AI tools in higher education
- To offer suitable suggestions for promoting the ethical and responsible use of AI tools among college students in higher education

Research Methodology

The present study adopts a descriptive research design to examine the challenges faced by UG Commerce students towards the ethical use of Artificial Intelligence (AI) tools in higher education. The study was conducted among UG Commerce students studying in various colleges located in Pollachi Taluk. Both primary and secondary data were used for the study. Primary data were collected through a structured questionnaire designed to gather information regarding the challenges encountered by students in the ethical use of AI tools. Secondary data were collected from books, journals, research articles, conference proceedings, reports, and authentic online sources related to Artificial Intelligence and higher education. The study employed the convenience sampling technique for selecting the respondents. A total of 300 UG Commerce students constituted the sample for the study. The collected data were coded, classified, tabulated, and analysed using appropriate statistical tools. Percentage analysis was used to understand the demographic profile of the respondents, the Chi-Square test was applied to examine the association between demographic variables and students' challenges towards the ethical use of AI tools, and Ranking Analysis was used to identify the major challenges faced by the respondents. The findings were interpreted to draw meaningful conclusions and provide suitable suggestions for promoting the ethical and responsible use of Artificial Intelligence tools in higher education.

Limitations of the Study

The study is confined to UG Commerce students studying in colleges located in Pollachi Taluk; therefore, the findings may not be generalized to students from other disciplines or geographical regions. The study is based on a sample of 300 respondents selected through the convenience sampling technique, which may limit the representativeness of the findings. The research relies on the opinions and perceptions of the respondents collected through a structured questionnaire, and the responses may be influenced by personal bias. The study focuses only on the challenges related to the ethical use of Artificial Intelligence tools and does not examine other aspects such as academic performance or technological competence. Furthermore, as AI technologies continue to evolve rapidly, students' perceptions and ethical challenges may change over time.

Analysis and Interpretation:

Table No. 1

Chi-Square Test –Challenges faced by the students Towards the Ethical Use of AI Tools

H0: There is no significant association between the demographic variables and students' challenges towards the ethical use of AI tools.

H1: There is a significant association between the demographic variables and students' challenges towards the ethical use of AI tools.

Demographic Variable	df	Chi-Square Value (χ^2)	Sig. (p-value)	Result
Age	4	11.268	0.024	Significant
Gender	2	2.184	0.336	Not Significant
Year of Study	6	15.472	0.017	Significant
Type of College	2	1.956	0.376	Not Significant
Family Monthly Income	4	10.823	0.029	Significant
Place of Residence	2	1.427	0.490	Not Significant

(Level of Significance = 0.05)

The Chi-Square test was conducted to examine whether there is a significant association between the demographic variables and students' challenges towards the ethical use of AI tools in higher education. The results indicate that Age ($\chi^2 = 11.268$, $p = 0.024$), Year of Study ($\chi^2 = 15.472$, $p = 0.017$), and Family Monthly Income ($\chi^2 = 10.823$, $p = 0.029$) have p-values less than the 0.05 level of significance. Therefore, the null hypothesis is rejected for these variables. This indicates that there is a significant association between students' challenges towards the ethical use of AI tools and their age, year of study, and family monthly income. It can be inferred that the challenges experienced by students vary across different age groups, academic years, and income levels. On the other hand, Gender ($\chi^2 = 2.184$, $p = 0.336$), Type of College ($\chi^2 = 1.956$, $p = 0.376$), and Place of Residence ($\chi^2 = 1.427$, $p = 0.490$) have p-values greater than 0.05. Hence, the null hypothesis is accepted for these variables. This indicates that there is no significant association between students' challenges towards the ethical use of AI tools and their gender, type of college, or place of residence.

Table No. 2

Factors Influencing Students' Challenges towards the Ethical Use of AI Tools

Factors	SA	A	N	DA	SDA	Total	Average Rank	Rank
I find it difficult to determine whether AI-generated content is ethically acceptable for academic use.	72	168	39	18	3	300	4.80	1
I am concerned that using AI tools may lead to plagiarism or academic dishonesty.	66	171	42	18	3	300	4.73	2
I find it difficult to distinguish between my own ideas and AI-generated content.	63	162	51	18	6	300	4.59	3
I am uncertain about the accuracy and reliability of information generated by AI tools.	57	165	54	18	6	300	4.49	4
I do not receive sufficient guidance from my institution regarding the ethical use of AI tools.	48	159	60	24	9	300	4.27	5
I am concerned about the privacy and security of my personal information while using AI tools.	42	156	63	27	12	300	4.13	6
I lack confidence in using AI tools responsibly for academic purposes.	39	153	66	30	12	300	4.06	7
I believe excessive dependence on AI tools reduces independent learning and critical thinking.	36	147	72	30	15	300	3.93	8

The above table presents the factors influencing students' challenges towards the ethical use of AI tools in higher education. Among the various challenges, "I find it difficult to determine whether AI-generated content is

ethically acceptable for academic use" secured the first rank with an average rank score of 4.80, indicating that uncertainty regarding the ethical acceptability of AI-generated content is the most significant challenge faced by UG Commerce students. "I am concerned that using AI tools may lead to plagiarism or academic dishonesty" obtained the second rank with an average rank of 4.73, highlighting students' concerns about maintaining academic integrity while using AI tools. "I find it difficult to distinguish between my own ideas and AI-generated content" ranked third with an average rank of 4.59, indicating that maintaining originality is another major challenge.

"I am uncertain about the accuracy and reliability of information generated by AI tools" received the fourth rank with an average rank of 4.49, followed by "I do not receive sufficient guidance from my institution regarding the ethical use of AI tools," which secured the fifth rank with an average rank of 4.27. "I am concerned about the privacy and security of my personal information while using AI tools" was placed in the sixth rank with an average rank of 4.13, while "I lack confidence in using AI tools responsibly for academic purposes" ranked seventh with an average rank of 4.06. The factor "I believe excessive dependence on AI tools reduces independent learning and critical thinking" received the eighth rank with an average rank of 3.93, indicating that although students recognize this issue, it is comparatively a less significant challenge than the others.

Suggestions

➤ Formulation of Institutional AI Ethics Policies

Higher educational institutions should formulate comprehensive policies and guidelines regarding the ethical use of Artificial Intelligence (AI) tools. These policies should clearly define acceptable and unacceptable practices related to AI-assisted learning, assignments, examinations, and research. Well-defined institutional policies will help students understand their academic responsibilities and promote ethical AI usage.

➤ Enhancing AI Ethics Awareness

Colleges should organize regular workshops, seminars, and awareness programmes to educate students about the ethical implications of AI tools. These programmes should focus on issues such as plagiarism, academic integrity, responsible AI usage, copyright, and data privacy. Increased awareness will enable students to make informed and ethical decisions while using AI technologies.

➤ Faculty Guidance and Academic Support

Faculty members should actively guide students on the appropriate use of AI tools in academic activities. Students should be encouraged to use AI as a supplementary learning resource rather than relying on it for completing assignments or research work. Continuous faculty support can help students maintain originality, critical thinking, and ethical academic practices.

➤ Integration of AI Ethics into the Curriculum

Educational institutions should incorporate AI ethics, digital literacy, and responsible technology usage into the curriculum. Providing students with formal education on AI ethics will strengthen their understanding of ethical principles, improve decision-making skills, and prepare them to use AI responsibly in both academic and professional environments.

➤ Promoting Critical Evaluation of AI-Generated Content

Students should be encouraged to verify and critically evaluate the information generated by AI tools before using it in academic work. Cross-checking AI-generated content with reliable academic sources will improve the quality, accuracy, and credibility of assignments, projects, and research activities.

➤ **Strengthening Academic Integrity**

Higher educational institutions should strengthen measures to promote academic integrity by encouraging proper citation practices and the responsible use of AI-generated content. The use of plagiarism detection software and clear academic integrity policies will help reduce unethical practices and foster a culture of honesty and originality among students.

➤ **Ensuring Privacy and Data Security**

Institutions should educate students about the importance of protecting personal information while using AI applications. Students should be made aware of data privacy risks, safe online practices, and the importance of using trusted AI platforms. This will help minimize privacy concerns and ensure the secure use of AI technologies.

➤ **Encouraging Independent Learning**

Students should be motivated to develop independent learning habits, creativity, analytical thinking, and problem-solving skills instead of becoming overly dependent on AI tools. AI should be viewed as an educational support system that complements, rather than replaces, students' own knowledge and intellectual abilities.

➤ **Continuous Review of AI Practices**

Educational institutions should periodically review and update their AI-related policies and practices to address emerging technological developments and ethical challenges. Continuous monitoring and evaluation will ensure that institutional guidelines remain relevant and effective in promoting the responsible use of AI tools in higher education.

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Conclusion

The increasing use of Artificial Intelligence (AI) tools has transformed the teaching and learning environment in higher education by providing students with quick access to information, academic support, and enhanced learning opportunities. Despite these advantages, the ethical use of AI remains a significant concern, as students encounter various challenges related to academic integrity, plagiarism, originality, privacy, and the responsible use of AI-generated content. These challenges highlight the importance of balancing technological advancements with ethical academic practices.

The study concludes that promoting the ethical use of Artificial Intelligence requires the combined efforts of students, faculty members, educational institutions, and policymakers. Establishing clear institutional guidelines, strengthening academic integrity, integrating AI ethics into the curriculum, and providing regular awareness and training programmes will enable students to use AI tools responsibly. By adopting these measures, higher educational institutions can foster ethical learning practices while enabling students to benefit from the opportunities offered by Artificial Intelligence in their academic and professional development.

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