

TRANSFORMING EDUCATION: THE IMPACT OF AI ON UNIVERSITY STUDENTS' LEARNING AND RESEARCH

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Abstract

This study examines the impact of Artificial Intelligence (AI) on university student learning and research at Eastern University, Sri Lanka. The main objective was to investigate students' perceptions of AI's influence on their learning experiences, while the sub-objectives focused on assessing ethical considerations and challenges associated with AI, exploring students' perspectives on AI's future role in higher education, and understanding how AI is transforming education. A mixed-methods approach was employed, combining quantitative and qualitative techniques. Quantitative data were collected from a stratified random sample of 384 undergraduate students from a total population of 9,917 across six faculties, using a structured questionnaire with a five-point Likert scale. Qualitative data were obtained from open-ended questions and analysed using Qualitative Content Analysis (QCA). The study found that students acknowledged AI as a vital component of future education, capable of transforming learning and research practices when used responsibly. The study concludes that AI has significant potential to enhance academic outcomes, but careful integration, ethical governance, and structured student training are essential. Future research should explore the long-term effects of AI on creativity, critical thinking, and academic integrity, as well as strategies to ensure equitable access to AI resources across diverse student populations.

Keywords: *Artificial Intelligence, Higher Education, Learning, Research, Ethical Integration*

1. Introduction

The rapid advancement of artificial intelligence (AI) is profoundly impacting various sectors, and higher education is no exception. Recent studies highlight that AI technologies are redefining educational structures by enabling data-driven decision-making, adaptive instruction, and enhanced student engagement across universities worldwide (Zawacki-Richter et al., 2019). AI has become an integral part of university learning and research. Universities increasingly adopt AI to support teaching, assessment, academic advising, and research processes, thereby improving both learning efficiency and institutional effectiveness (Luckin et al., 2016). Innovative AI solutions enhance students' academic experiences. AI-powered systems provide personalised feedback, real-time academic support, and flexible learning opportunities that cater to diverse student needs and learning styles (OECD, 2022). From intelligent tutoring systems and automated grading to AI-driven research tools, these technologies transform how students access knowledge, engage with coursework, and conduct research (Holmes et al., 2019). Such technologies reduce routine academic workload and allow students to focus more on higher-order learning activities such as analysis, synthesis, and problem-solving (UNESCO, 2023). Integrating AI into university education is not merely a trend but a paradigm shift that requires deeper exploration.

At Eastern University in Sri Lanka, the adoption of AI in education is still in its early stages. However, students increasingly rely on AI-powered tools such as ChatGPT, Grammarly, plagiarism checkers, and AI-driven data analysis software to support their learning and research activities. These tools are commonly used for academic writing, exam preparation, literature reviews, and data interpretation, reflecting a growing informal integration of AI into students' academic practices (Chetry, 2024). While these tools offer numerous advantages, including efficiency and personalised learning, they also raise concerns regarding academic integrity, dependency, and the digital divide among students with varying levels of access to technology.

This study aims to examine the impact of AI on student learning and research at Eastern University. Understanding students' direct experiences with AI is essential for evaluating its educational value and identifying context-specific challenges (Zouhaier, 2023). It will explore students' perceptions, benefits, and challenges associated with AI adoption and assess how AI influences academic performance, critical thinking, and research output. Student perceptions provide valuable insights into how AI affects learning behaviours, research practices, and cognitive skill development in higher education settings (Ghaffar et al., 2025). By understanding these factors, the research will provide valuable insights into how universities can optimise AI integration to enhance educational outcomes while addressing potential challenges. In addition, there is limited empirical evidence on how AI impacts university students' academic activities in Sri Lanka. Hence, this study aims to bridge that gap by examining AI's effects on students' learning experiences and research productivity at Eastern University.

The contribution of this study to the literature is threefold. First, it provides empirical evidence on AI usage in learning and research within a Sri Lankan public university context, an under-researched setting. Second, it integrates quantitative perception analysis with qualitative student narratives to offer a holistic understanding of AI's academic impact. Third, it identifies ethical concerns and policy-relevant recommendations to guide responsible AI integration in higher education.

2. Literature Review

The integration of artificial intelligence (AI) into higher education has attracted significant scholarly attention for its transformative potential for student learning, academic achievement, and research practices. The existing literature consistently highlights AI as a catalyst for enhancing personalised learning, improving academic performance, and improving research efficiency, while also emphasising ethical, technical, and pedagogical challenges.

Empirical evidence strongly supports the positive relationship between AI usage and academic achievement among university students. Ghaffar et al. (2025) conducted a large-scale quantitative study involving 378 university students using a cross-sectional survey design and regression analysis. Their findings revealed a significant positive correlation between frequent use of AI tools and improved academic performance. The study further demonstrated that AI usage moderates the relationship between academic support and student achievement, indicating that AI not only directly enhances performance but also amplifies the effectiveness of traditional academic support mechanisms. Despite these benefits, the authors identified

barriers to AI adoption, including limited access to technology, insufficient training, and limited awareness of privacy concerns.

Complementing these findings, Ateeq et al. (2024) emphasised the role of AI tools in enhancing student engagement, academic writing, and research capabilities within university teaching. Through a comprehensive review of scholarly literature published between 2019 and 2023, the study highlighted AI's contribution to customised learning and improved thesis and assignment guidance. However, the authors stressed that successful AI integration depends on educators' competencies and on addressing ethical considerations through well-planned implementation strategies.

Ojha (2025) discusses the broader impact of AI on teaching, learning, and institutional efficiency, combining survey-based primary data with secondary literature analysis. The study reported that AI improves personalised learning experiences, increases student engagement, and enhances instructional effectiveness by allowing educators to focus more on pedagogy. Additionally, AI was found to streamline administrative processes and improve resource allocation. Nonetheless, Ojha underscored the importance of digital literacy, faculty training, and ethical safeguards, particularly concerning data privacy and algorithmic bias.

AI's influence on student research practices has also been widely examined. Thuy and Tien (2025) explored how AI applications such as natural language processing and machine learning enhance literature reviews, data analysis, and overall research accuracy. Their analysis of real-world AI research cases demonstrated that AI fosters student independence, creativity, and critical thinking. At the same time, the study acknowledged significant challenges, including ethical concerns, data privacy issues, and the digital divide, which may limit equitable access to AI-driven research tools. Several studies adopt a more conceptual or review-based approach, reinforcing the positive educational impact of AI. Robert et al. (2024) argued that AI has the potential to revolutionise learning experiences by offering personalised and adaptive learning pathways, immediate feedback, and collaborative learning environments. However, they cautioned against risks such as over-reliance on AI and unresolved privacy issues. Similarly, Singh and Hiran (2022) highlighted AI's role in improving instructional effectiveness, administrative efficiency, and student support, while noting ongoing challenges in its implementation and adaptation by educators.

A synthesis of existing research by Sasikala and Ravichandran (2024) further confirmed AI's transformative impact on student learning outcomes. Their literature review emphasised AI's ability to personalise learning experiences, enhance engagement, and improve academic performance, particularly through individualised learning paths. Although the study reinforced the robustness of existing findings, it relied primarily on secondary evidence.

Zouhaier (2023) provided qualitative insights into perceptions of AI in higher education through a survey of students, academic staff, and decision-makers. The study concluded that AI positively influences learning experiences by personalising teaching methods and facilitating the acquisition of new skills, thereby preparing graduates for future workforce demands. The author also emphasised the need to integrate ethical and human-centred perspectives into AI education.

Chetry (2024) examines the transformative impact of Artificial Intelligence (AI) on education, focusing on how AI has revolutionised learning experiences, teaching methodologies, and administrative processes. By analysing secondary sources such as literature and data, the research identifies key themes and patterns in AI integration within educational settings. The study highlights various AI tools, including chatbots, virtual assistants, image and speech recognition systems, predictive analytics, natural language processing, recommendation systems, robotics, and AI applications in healthcare.

Kumar et al. (2024) explore the integration of the Internet of Things (IoT) and Artificial Intelligence (AI), and the opportunities and challenges of implementing these technologies in educational settings. While IoT and AI offer significant benefits, they also have challenges, such as data privacy, high costs, and ethical issues. A study by Luckin et al. (2020) highlights that AI can improve engagement and retention but must be carefully integrated into curricula to avoid dependency.

Ivanashko et al. (2024) examine the role of artificial intelligence (AI) in education by analysing its opportunities and challenges. Using a mixed-methods approach that includes qualitative techniques (interviews, focus groups, and classroom observations) and quantitative methods (surveys and statistical analysis), the research adheres to ethical data collection and analysis standards. It draws insights from over 50 recent scientific studies and involves 56 higher education instructors in Ukraine, selected based on subject specialisation, institution type, curriculum accreditation, and AI experience. The study indicates that AI-driven personalised learning, predictive analytics, intelligent tutoring systems, Virtual Reality, automated tasks, and chatbots can significantly modernise education and enhance training for future professionals. The results can assist educational institutions in raising awareness and optimising AI integration in teaching and learning.

While global studies highlight AI's potential to enhance learning, research, and academic performance, there is a lack of empirical, context-specific evidence from Sri Lanka, particularly regarding students' perceptions, ethical considerations, and recommendations for AI integration in higher education. Most prior research focuses on general academic outcomes or theoretical discussions, without exploring localised experiences. No study has specifically examined how AI influences students' learning experiences and research productivity at Eastern University, creating a clear gap that this study aims to address through a mixed-methods approach.

3. Methodology

This study employed a mixed-methods approach, combining quantitative and qualitative techniques. The study population comprised 9,917 undergraduate students from six faculties at Eastern University. The structured questionnaire was developed based on an extensive review of prior studies on Artificial Intelligence in higher education (Zawacki-Richter et al., 2019; Luckin et al., 2016; Ghaffar et al., 2025) and aligned with the specific research objectives of this study. To ensure content validity and contextual relevance, the instrument was reviewed by a panel of three experts in educational technology and research methodology. Based on their feedback, minor revisions were made to improve item clarity, structure, and relevance.

A pilot study was conducted with 30 undergraduate students who were excluded from the final sample. The pilot results demonstrated acceptable internal consistency, and minor wording adjustments were made prior to final administration. To ensure proportional representation across faculties, a stratified random sampling technique was employed. The sample size was determined using the stratified sampling formula (Equation 1), resulting in a total sample of 384 undergraduate students. The distribution of the sample across the six faculties is presented in Table 1.

Table1: Distribution of the Study Sample by Faculty

Faculty	Number of Students	Sample
Agriculture	530	21
Arts and Culture	4196	162
Commerce and Management	1776	69
Health Care Sciences	949	37
Science	1785	69
Technology	681	26
Total	9917	384

Source: Survey Data, 2025

$$n = \frac{N}{1+Ne^2} \quad (\text{Equation 1})$$

n – Sample

N – Total Population

e – Error Term

Quantitative data were collected using a five-point Likert scale (Table 2), ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), to assess students' perceptions of AI in learning and research. Mean values of responses were interpreted according to pre-defined categories shown in Table 3. Quantitative data were analysed using MS Excel and SPSS, employing descriptive statistics and Likert scale analysis to summarise trends and patterns in students' responses. To ensure the reliability of the measurement instruments, internal consistency was assessed using Cronbach's alpha, a widely used statistic that evaluates how closely related a set of items is as a group and the extent to which they measure the same underlying construct (Cronbach, 1951). Generally, alpha values of 0.70 or higher are considered acceptable, indicating satisfactory reliability for research purposes (George & Mallery, 2024).

To evaluate qualitative insights, particularly regarding the third sub-objective on students' perspectives of AI's future role and recommendations, Qualitative Content Analysis (QCA) was employed. Students' open-ended responses were systematically examined and categorised to identify recurring ideas, concerns, and suggestions, providing a deeper understanding of the contextual and subjective aspects of AI integration in education.

Table 2: Five-point Likert Rating Scale

Scale	Likert Description
1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly Agree

Source: Sözen, E., & Güven, (2019)

Table 3: Interpretation of the Mean Value of the Likert Scale

Range Value	Verbal Interpretation
1.00 – 1.49	Not Acceptable
1.50 – 2.49	Fairly Acceptable
2.50 – 3.49	Moderately Acceptable
3.50 – 4.49	Acceptable
4.50 – 5.00	Highly Acceptable

Source: Terano, H. J. (2015)

This mixed-methods approach enabled a comprehensive analysis of both measurable perceptions and nuanced opinions, ensuring that the study effectively addressed the main and sub-research objectives.

4. Results and Discussion

Descriptive analysis was conducted to provide an overview of the demographic characteristics of the surveyed students and their engagement with Artificial Intelligence (AI) tools in higher education. This approach summarises numerical data using frequencies, percentages, and tabular presentations, allowing for a clear understanding of patterns and trends in the sample. The analysis covered several aspects, including students' study year, gender, frequency of AI tool usage, and proficiency level. Additionally, it examined the specific AI tools used for learning and research, as well as the purposes for which students applied them. By employing descriptive statistics, the study identifies the prevalence of AI adoption, highlights common applications in academic activities, and provides a foundation for interpreting students' perceptions and experiences with AI in subsequent analyses.

Table 4: Demographic Characteristics of Students

Variable	Frequency	Percentage
Study Year		
1 st Year	57	14.8
2 nd Year	55	14.3
3 rd Year	80	20.8
4 th Year	192	50.0
Gender		
Male	123	32.0
Female	261	68.0
Frequent		

Daily	126	32.8
Weekly	103	26.8
Occasionally	151	39.3
Never	4	1.0
Proficiency		
Beginner	74	19.3
Intermediate	228	59.4
Advanced	82	21.4

Source: Survey Data, 2025

Demographic Characteristics of Students are summarised in Table 4. In terms of study year, half of the respondents were 4th-year students (192, 50.0%), while 3rd-year students accounted for 80 (20.8%), 1st-year students for 57 (14.8%), and 2nd-year students for 55 (14.3%). Regarding gender distribution, the majority of participants were female (261, 68.0%), while 123 were male (32.0%). Regarding the frequency of AI tool use, 126 students (32.8%) reported using AI daily, 103 (26.8%) weekly, 151 (39.3%) occasionally, and 4 (1.0%) never. In terms of proficiency, most students identified as intermediate users (228, 59.4%), followed by advanced users (82, 21.4%) and beginners (74, 19.3%). These results provide an overview of the surveyed students' demographics and their engagement with AI tools, highlighting variations in faculty, study year, gender, usage frequency, and proficiency levels.

Table 5 presents the various AI tools students use for learning and research. The majority of students reported using ChatGPT (372 students) as their primary tool, followed by Quillbot (114), Deepseek (98), and Grammarly (96). 26 students used tools for plagiarism detection and academic integrity, such as Turnitin, while 34 students used AI-powered citation management tools like Zotero and EndNote. AI-based tutoring systems, including platforms like Khan Academy AI, were used by 31 students to support learning. A small number of students reported using other tools, including Gemini (1), Doctrina (1), Google (1), Cloudav (1), and Turnitin (2). These results indicate that students predominantly rely on AI tools for writing assistance, content generation, and research support, with conversational AI like ChatGPT being the most widely adopted platform. The variety of tools used also reflects the diverse ways AI is integrated into academic activities, from language support to citation management and personalised learning.

Table 5: AI Tools Used by Students for Learning and Research

AI Tools	No
ChatGPT	372
Deepseek	98
Grammarly	96
Turnitin	26
Quillbot	114
Research Rabbit	47
AI-powered citation tools (e.g., Zotero, EndNote)	34
AI-based tutoring systems (e.g., Khan Academy AI)	31
Other:	
Gemini	1
Doctrina	11

Google	1
Cloudav	1
Turnitin	2

Source: Survey Data, 2025

Table 6 shows the different purposes for which students use AI tools in their academic activities. The most common purpose reported was exam preparation, with 230 students using AI to study and revise. Writing assistance and personalised learning were also widely cited, with 199 and 197 students, respectively, using AI for these purposes. AI tools were employed for research and literature review by 137 students and for data analysis by 99 students. A few students indicated other uses, such as generating images (2), enhancing creativity (1), and translating content (1). These results highlight that AI tools are primarily used to support learning, enhance understanding, and improve academic performance. Students utilise AI not only for routine tasks such as writing and studying, but also for personalised learning and analytical work, demonstrating the diverse roles AI plays in academic activities.

Table 6: Purposes for Using AI Tools in Academic Activities

Purposes	No
Writing assistance	199
Research & literature review	137
Data analysis	99
Exam preparation	230
Personalized learning	197
Other:	
Generate images	2
Increase the creativity	1
Translating	1

Source: Survey Data, 2025

Likert scale analysis was used to evaluate the study objectives, including the primary objective and the first and second sub-objectives. Table 7 presents Cronbach's alpha values for each scale, indicating the scale's reliability. Values above 0.7 are generally considered acceptable, suggesting that the instrument consistently measures research focus. According to Table 7, Cronbach's alpha values are above 0.7, confirming that the instrument consistently measures the focus area.

Table 8 presents the Likert-scale results, showing students' perceptions across three areas: the impact of AI on learning and research, ethical considerations and challenges, and future prospects and recommendations. The mean values and standard deviations indicate the level of agreement and variability in students' responses, allowing for a quantitative understanding of their perceptions.

The analysis of students' perceptions regarding the impact of Artificial Intelligence (AI) on learning and research at Eastern University, Sri Lanka, was conducted using a 5-point Likert scale. Based on the mean values and standard deviation, students agreed that AI tools have improved the efficiency of their academic research, with a mean of 3.74 and a standard deviation of 0.88, indicating an acceptable perception with moderate variability.

Table 7: Results of Reliability

Focus Areas	Cronbach's Alpha	No of items
AI's Impact on Learning and Research	0.780	6
Ethical Considerations and Challenges	0.793	5
Future Prospects and Recommendations	0.809	3

Source: Survey Data, 2025

They also agreed that AI-assisted learning enhances their understanding of complex topics (mean = 4.07, SD = 0.75), indicating an acceptable level of agreement with relatively low response variation. Similarly, students reported that using AI helps them manage their academic workload more effectively, with a mean of 3.93 and SD of 0.99, reflecting an acceptable perception with moderate variability. Moderate agreement was observed regarding trust in the accuracy of AI-generated information (mean = 3.38, SD = 0.91) and AI tools' ability to encourage critical thinking rather than just providing ready-made answers (mean = 3.36, SD = 0.90), both falling within the Moderately acceptable range with some variation among students. Students were least confident about AI enhancing creativity in academic writing and research, with a mean of 3.18 and SD of 1.00, indicating a moderately acceptable perception with higher variability. The overall mean value of 3.6120 indicates that while students recognise the practical benefits of AI, they remain cautious about its impact on higher-order cognitive skills and creativity, thereby directly addressing the study's main objective.

The analysis of students' perceptions regarding ethical considerations and challenges associated with the use of Artificial Intelligence (AI) in university education was conducted using a 5-point Likert scale. Students reported awareness of ethical concerns related to AI use in education, such as plagiarism and misinformation, with a mean of 3.69 and a standard deviation of 0.87, indicating an acceptable level of awareness and moderate variability. They also agreed that AI-generated content should be regulated in academic research to prevent misuse (mean = 3.72, SD = 0.92) and that over-reliance on AI tools may reduce critical thinking and problem-solving skills (mean = 3.74, SD = 0.88), reflecting an acceptable perception with moderate variability. Students were also confident in distinguishing between AI-generated and human-created academic content (mean = 3.54, SD = 0.85) and agreed that universities should provide guidelines and training on the ethical use of AI in academia (mean = 3.68, SD = 0.99). The overall mean value (3.6745) for students' perceptions of ethical considerations and challenges suggests that students recognise the importance of ethical practices and challenges in AI adoption.

The analysis of students' perceptions regarding the future role of Artificial Intelligence (AI) in higher education and their recommendations for AI integration was conducted using a 5-point Likert scale. Students agreed that AI will play a crucial role in the future of university education, with a mean of 4.04 and a standard deviation of 0.99, indicating an acceptable perception with moderate variability. They also expressed agreement that universities should integrate AI-based tools into the curriculum to enhance learning experiences (mean = 3.90, SD = 0.79) and that AI should be used as a support tool rather than a replacement for traditional learning methods (mean = 3.88, SD = 0.87), both reflecting acceptable perceptions with relatively low variability. The overall mean value (3.9401) regarding students' perceptions of the future role of AI in higher education and their recommendations for AI integration suggests that students recognise

AI's potential to enhance learning while emphasising that it should complement, rather than replace, traditional teaching methods.

Table 8: Perception Analysis of AI Usage in Education

AI's Impact on Learning and Research	Mean	Std. Deviation
AI tools have improved the efficiency of my academic research	3.7422	0.87834
AI-assisted learning enhances my understanding of complex topics	4.0703	0.74592
Using AI helps me manage my academic workload more effectively	3.9349	0.98735
I trust the accuracy of AI-generated information in my studies	3.3776	0.90581
AI tools encourage critical thinking rather than just providing ready-made answers	3.3646	0.89524
AI enhances my creativity in academic writing and research	3.1823	1.00031
Overall	3.6120	0.62527
Ethical Considerations and Challenges		
I am aware of ethical concerns related to AI use in education (e.g., plagiarism, misinformation)	3.6901	0.86734
AI-generated content should be regulated in academic research to prevent misuse	3.7188	0.91638
Over-reliance on AI tools may reduce my critical thinking and problem-solving skills	3.7448	0.88058
I am confident in distinguishing between AI-generated and human-created academic content	3.5365	0.84503
Universities should provide guidelines and training on the ethical use of AI in academia	3.6823	0.99508
Overall	3.6745	0.66731
Future Prospects and Recommendations		
AI will play a crucial role in the future of university education	4.0365	0.99015
I would like universities to integrate AI-based tools into the curriculum for better learning experiences	3.9010	0.79200
I feel that AI should be used as a support tool rather than a replacement for traditional learning methods	3.8828	0.87275
Overall	3.9401	0.75572

Source: Survey Data, 2025

Qualitative content analysis was employed to assess the third specific objective of the study. Students' perspectives on how AI is transforming education reveal a range of insights, which can be categorised into five key areas: Benefits of AI in Education, Concerns and Negative Impacts of AI, The Role of AI in the Future, Need for Regulation & Ethical Use, and a Balanced View: AI as a Tool, not a Replacement. Their responses highlight both the potential of AI to enhance learning

and the challenges that must be addressed to ensure its responsible and effective use in educational settings.

Benefits of AI in Education

Students highlighted several important benefits of AI in their learning process. They explained that AI tools are easy to use and extremely useful for studying, especially for understanding difficult concepts. Many students noted that AI is particularly helpful for those with weak English skills, as it provides clear explanations and supports language improvement. They also appreciated how AI saves time by providing fast, accurate information, reducing the need to spend long hours searching through books or traditional resources. AI enhances access to information, supports self-learning, and helps students express their ideas more clearly in academic writing. Additionally, learners noted that AI offers flexibility in their studies, enabling them to learn at their own pace and convenience. AI-powered virtual classrooms and online learning support were also seen as valuable features, making education more accessible regardless of location. Overall, students viewed AI as a powerful and convenient tool that significantly enhances the learning experience.

Concerns and Negative Impacts of AI

While students acknowledged the advantages of AI, many also expressed serious concerns about its negative effects on learning. A major issue raised was the decline in critical thinking and creativity, as overreliance on AI encourages students to rely on ready-made answers rather than developing their own ideas. This reliance, they felt, weakens their thinking power and reduces the effort put into problem-solving. Another concern was the possibility of receiving wrong or unreliable information from AI tools, highlighting the need for students to use these tools cautiously and verify the accuracy of content. Some students also noted that AI makes learners lazy, as the convenience of instant answers reduces the need to search through books or libraries, thereby lowering academic effort. Ethical issues such as misuse, plagiarism, and the lack of proper guidelines were also frequently mentioned. Students emphasised the need for clearer regulations and proper training on the responsible use of AI in academic settings. Overall, these concerns underscore the need for a balanced, mindful approach to integrating AI into education.

The Role of AI in the Future

Students strongly believe that AI will play a major and unavoidable role in the future of education. Many expressed that AI will soon become essential not only in academic settings but across all professional fields, making it a fundamental skill for future generations. They anticipate that AI will help shape university curricula, influence how exams are conducted, and transform the overall learning environment. Rather than replacing educators, students felt that AI would serve as a powerful support system for teachers, helping them manage tasks more efficiently while enhancing the learning experience for students. Overall, learners viewed AI as an inevitable and central component of future education, deeply integrated into teaching, assessment, and skill development.

Need for Regulation & Ethical Use

Students emphasised the importance of regulating AI use within the education system to ensure responsible, safe use. Many felt that universities should take an active role by providing proper training and guidelines for using AI ethically, especially to prevent issues such as plagiarism,

misuse, and overreliance. They also stressed that students must learn how to verify the accuracy of AI-generated information rather than accepting it blindly. According to their views, AI should function as a supportive tool that enhances learning, not as a replacement for human thinking, creativity, or academic effort. The overall concern highlighted the need for clear regulations, proper education on ethical practices, and balanced use of AI in academic environments.

Balanced View: AI as a Tool, not a Replacement

Many students expressed a balanced perspective, emphasising that while AI is highly helpful, it should not replace traditional studying or the effort required to learn. They highlighted that AI should be used primarily to support understanding, not to copy or rely on ready-made answers. Students also pointed out the importance of maintaining a balance between AI-assisted learning and conventional methods such as reading books, conducting research, and engaging in critical thinking. According to their views, combining both AI tools and traditional learning practices leads to better educational outcomes while preventing overreliance on technology.

Despite its valuable insights, this study has several limitations. First, it was conducted at a single university, which may limit the generalizability of the findings to other higher education institutions in Sri Lanka or globally. Second, the study relied on self-reported data from students, which may be influenced by personal bias or social desirability. Third, while a mixed-methods approach was used, the qualitative analysis was limited to open-ended survey responses rather than in-depth interviews or focus groups, which could have provided deeper insights into students' experiences and perceptions. Finally, the study focused on undergraduate students, excluding postgraduate learners and faculty perspectives, which may also influence the broader understanding of AI's impact on university education.

5. Conclusion

The study demonstrates that AI is increasingly integrated into university learning and research, offering significant benefits, including enhanced efficiency, a deeper understanding of complex topics, personalised learning, and improved academic support. However, students also expressed concerns regarding ethical use, overreliance, and potential impacts on critical thinking and creativity. The findings highlight the importance of balancing AI-assisted learning with traditional methods and implementing institutional guidelines to ensure responsible and effective use of AI in education. Overall, AI is recognised as a transformative tool that can play a central role in shaping the future of higher education, provided that institutional policies, ethical frameworks, and continuous student training support its adoption.

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