Undergraduate students' perception of artificial intelligence for enhancing educational practices: Opportunities, challenges, and ethical considerations

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ABSTRACT

This study employed a descriptive survey design to examine undergraduate students' perceptions of artificial intelligence (AI) in enhancing educational practices, focusing on opportunities, challenges, and ethical considerations. Conducted in the Faculty of Education at the University of Port Harcourt, the study targeted a population of 160 students, 98 from the Department of Curriculum Studies and Educational Technology and 62 from the Department of Educational Management. A sample of 80 students was selected using a stratified sampling technique. Data were collected using a structured questionnaire titled "Undergraduate Students' Perception of Artificial Intelligence for Enhancing Educational Practices: Opportunities, Challenges, and Ethical Considerations" (USPAIEEPOCEC), consisting of 20 items. The instrument's validity was established through face and content validation, and its reliability was confirmed using Cronbach's Alpha, yielding a coefficient of 0.74. Mean scores were used to answer research questions, while the Z-test was applied to analyze the hypotheses. Findings revealed that AI enhances accessibility and diversity in education by providing assistive technologies such as speech recognition and text-to-speech tools. The study recommended that higher education institutions incorporate AI literacy programs into their curricula to equip students and educators with the knowledge and skills to understand AI applications and ethical implications; developers must emphasize transparency in the decision-making processes of AI.

Keywords: *Artificial intelligence, Educational practices, Opportunities, Perception, Undergraduate students.*

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Highlights of this paper

- Investigates undergraduate students' perceptions of artificial intelligence (AI) in enhancing educational practices.
- Examines AI's opportunities, challenges, and ethical considerations in higher education.
- Findings reveal that AI improves accessibility and diversity in education through assistive technologies.

1. INTRODUCTION

In recent years, universities and other educational institutions have been incorporating AI-driven technologies to enhance student participation, personalize instruction, improve the learning environment, and streamline administrative tasks (Radu, 2023). The integration of artificial intelligence (AI) across various sectors has significantly transformed numerous fields, and education is no exception. AI technologies such as machine learning, natural language processing, and intelligent tutoring systems are increasingly being used in academic settings, offering the potential to revolutionize traditional teaching and learning methods (Verma, 2018).

As AI tools continue to evolve rapidly, their impact on student learning outcomes, engagement, and academic integrity has drawn considerable attention. While some students recognize AI as a valuable resource that facilitates personalized learning and provides instant access to information, others express concerns about over-reliance, reduced human interaction, and privacy risks. Despite the widespread adoption of AI in education, research on undergraduate students' perspectives regarding its ethical implications, challenges, and opportunities remains limited (Zouhaier, 2023).

Given the growing role of AI in education, it is crucial to examine its ethical concerns, particularly those related to data privacy, algorithmic bias, and transparency (Robinson, 2018). This study aims to explore undergraduate students' perceptions of AI for educational purposes, including their attitudes toward AI, perceived benefits, anticipated challenges, and awareness of ethical dilemmas associated with its use (Adelakun, 2022; Isa & Eduina, 2024). The findings will contribute valuable insights into how AI can be effectively integrated into classrooms while addressing students' needs, expectations, and concerns.

Additionally, this study will assist educators and policymakers in developing informed strategies for implementing AI-driven tools to enhance teaching and learning while maintaining ethical standards (Mohammed & Shehu, 2023). The expanding application of AI in education presents both promising opportunities and significant challenges for educators, students, and institutions. As AI-driven platforms become more advanced, they hold the potential to deliver customized learning experiences that cater to individual student needs and preferences (Muresan, 2023). However, the rapid adoption of AI also raises critical questions about how students perceive its educational value.

Many undergraduate students, who are still adjusting to the demands of higher education, may be unaware of AI's full potential in academic settings (Eden, Chisom, & Adeniyi, 2024). While some students embrace AI-powered tools such as chatbots, virtual assistants, and automated grading systems as useful aids for study habits and quick feedback, others remain skeptical about AI-driven assessments and the possible loss of personal interaction with instructors. Furthermore, concerns persist about the potential misuse of AI, particularly regarding academic dishonesty facilitated by these technologies (Berendt, 2019).

Another pressing issue is the ethical use of AI in education. As AI becomes more prevalent, concerns about data privacy grow, particularly regarding the collection and use of student data to train algorithms. Understanding how undergraduate students perceive these ethical issues and whether they feel their rights and interests are adequately protected is essential as AI continues to shape education (Archana, 2023). Beyond ethical concerns, exploring

students' experiences with AI can provide insights into how these interactions may influence their long-term relationship with technology.

By examining undergraduate students' perceptions of AI in education, institutions can better prepare students for the digital future by fostering technological literacy, ethical awareness, and critical thinking skills that will benefit them in the workforce (Sugali, Sprunger, & Inukollu, 2021). Students may also express concerns about the transparency of AI algorithms, which often function as "black boxes" with minimal insight into how decisions are made (Ramnani, 2024). Additionally, issues related to algorithmic bias, where AI systems may unintentionally favor certain groups, could exacerbate inequalities within educational settings. Addressing these concerns is crucial to ensuring that AI's integration into education remains equitable, ethical, and effective.

1.1. Problem of the Study

The rapid advancement of Artificial Intelligence (AI) in education has transformed traditional teaching and learning methods, offering opportunities for personalized learning experiences, automated assessments, and intelligent tutoring systems. Despite its potential to enhance educational practices, undergraduate students' acceptance of AI varies due to factors such as familiarity, accessibility, and ethical concerns. While previous research has explored AI's impact in higher education, there remains a lack of empirical data on undergraduate students' perceptions regarding its usefulness, challenges, and ethical considerations.

Many students may have limited exposure to AI-driven tools, raising questions about their readiness to integrate AI into their learning processes. Additionally, concerns surrounding data privacy, academic integrity, and biases embedded in AI algorithms add to the complexity of its adoption. Without a clear understanding of students' perspectives, institutions may struggle to implement AI technologies effectively, potentially leading to resistance or misuse.

Therefore, this study aims to investigate undergraduate students' perceptions of AI in education, focusing on its perceived benefits, challenges, and ethical implications. The findings will provide valuable insights into how AI can be successfully integrated into educational practices while addressing students' concerns and ethical considerations.

1.2. Aim and Objectives of the Study

The aim of the study is to investigate undergraduate students' perception of artificial intelligence for enhancing educational practices: opportunities, challenges, and ethical considerations. Specifically, the study intends to.

1. Examine undergraduate students in the Department of Curriculum Studies and Educational Technology and undergraduate students in the Department of Educational Management's perceptions of the benefits of using AI in enhancing their learning experiences.
2. Identify the challenges and concerns that undergraduate students in both departments associate with the use of AI in educational settings.
3. Examine students' understanding of the ethical implications of AI use in education in both departments, including issues related to data privacy, algorithmic bias, and transparency.
4. Assess the extent to which undergraduate students in both departments are willing to adopt AI tools in their academic work and their perceived readiness to use AI for learning.
5. Investigate the role of AI in preparing undergraduate students in both departments for future career opportunities in a technology-driven world.

1.3. Research Questions

Based on the objectives, the following questions were drawn.

1. What benefits do undergraduate students in the Department of Curriculum Studies and Educational Technology and undergraduate students in the Department of Educational Management perceive from the use of AI in enhancing their learning experiences?
2. What challenges or concerns do undergraduate students in both departments associate with the use of AI in their academic journey?
3. How do undergraduate students in both departments perceive the ethical implications of AI use in education, particularly concerning data privacy, bias, and transparency?
4. To what extent are undergraduate students in both departments willing to adopt AI tools for learning, and how do they perceive their readiness to use AI in their studies?
5. In what ways do undergraduate students in both departments believe AI will impact their future career opportunities, and how does it shape their attitudes toward technology in education?

2. METHODOLOGY

This study adopted a descriptive survey design to investigate undergraduate students' perception of artificial intelligence for enhancing educational practices: opportunities, challenges, and ethical considerations. This study was carried out in the Faculty of Education, University of Port Harcourt. The population of this study consists of 98 students in the Department of Curriculum Studies and Educational Technology and 62 students in the Department of Educational Management, making a total population of 160 students. A sample of 80 students was used for the study. A stratified sampling technique was employed for the study. The instrument used for the study was a structured questionnaire titled "Undergraduate Students' Perception of Artificial Intelligence for Enhancing Educational Practices: Opportunities, Challenges, and Ethical Considerations" (USPAIEEPOCEC) with 20 items. Face and content validity were used for the study. Using Cronbach's Alpha, a reliability coefficient of 0.74 was obtained. Mean was used to answer the research questions, while the Z-test was used to analyze the hypotheses.

3. RESULTS

Research Question 1: What benefits do undergraduate students in the Department of Curriculum Studies and Educational Technology and undergraduate students in the Department of Educational Management perceive from the use of AI in enhancing their learning experiences?

Table 1. Benefits of AI.

S/N	Items benefits of AI	SA	A	SD	D	Mean	SD	Total no of respondents
1	By tailoring content to each student's unique needs, interests, and learning pace, artificial intelligence (AI) can offer personalized learning experiences that enhance comprehension and retention.	74	6	-	-	3.92	0.19	80
2	Instant feedback on assignments, tests, and quizzes can be provided via AI-powered systems, allowing students to immediately identify their areas of weakness and modify their study techniques.	70	10	-	-	3.87	0.33	80
3	AI-based apps can help students stay organized, reduce stress, and improve academic performance by scheduling study	65	15	-	-	3.81	0.39	80

S/N	Items benefits of AI	SA	A	SD	D	Mean	SD	Total no of respondents
	sessions, sending reminders, and providing time management guidance.							
4	By offering individualized career guidance, employment recommendations, and skill-building opportunities based on their academic achievements and interests, AI can also assist students in developing marketable skills.	60	20	-	-	3.75	0.44	80
5	Artificial intelligence (AI) can improve accessibility and diversity in the classroom by offering assistive technologies such as speech recognition, text-to-speech, and others.	78	2	-	-	3.97	0.19	80
	Average mean					3.86	0.30	

Table 1 shows that with a mean score of 3.86, it reveals that Artificial Intelligence (AI) can improve accessibility and diversity in the classroom by offering assistive technologies such as speech recognition, text-to-speech, and others.

Research Question 2: What challenges or concerns do undergraduate students in both departments associate with the use of AI in their academic journey?

Table 2. Challenges or concerns undergraduate students associate with the use of AI in their academic journey.

S/N	Items, challenges, or concerns undergraduate students associate themselves with regarding the use of AI in their academic journey.	SA	A	SD	D	Mean	SD	Total no of respondents
1	A lack of trust in AI tools may result from the fact that many students are unclear about how AI functions.	75	5	-	-	3.93	0.29	80
2	When it comes to learning, time management, and assignment completion, students could grow unduly dependent on AI tools. This dependence may impair one's capacity for autonomous problem-solving, creativity, and critical thinking.	58	22	-	-	3.72	0.44	80
3	AI systems can occasionally reveal biases in the data they use or the algorithms they apply. Students may worry that AI could perpetuate stereotypes or make incorrect recommendations based on incomplete or biased data, leading to unfair or inaccurate outcomes.	53	27	-	-	3.66	0.48	80
4	AI may lessen in-person encounters with peers and instructors, which are crucial for socializing, cooperative learning, and the growth of communication skills. Some students are concerned that these important human experiences may be diminished by an excessive dependence on AI.	50	30	-	-	3.62	0.50	80
5	Not every student has equal access to the technology needed for learning powered by AI. There may be a digital divide if students from lower-income families have trouble obtaining the gadgets or internet bandwidth they need to use AI tools efficiently.	76	4	-	-	3.95	0.28	80
	Average mean					3.77	0.39	

Table 2 showed that with a mean score of 3.77, the table revealed that not every student has equal access to the technology needed for learning powered by AI. There may be a digital gap if students from lower-income families have trouble obtaining the gadgets or internet bandwidth they need to use AI tools efficiently.

Research Question 3: How do undergraduate students in both departments perceive the ethical implications of AI use in education, particularly concerning data privacy, bias, and transparency?

Table 3. Perceived ethical implications of AI use in education.

S/N	Items perceived ethical implications of AI use in education	SA	A	SD	D	Mean	SD	Total no of respondents
1	Students may use AI tools unethically, such as producing papers or projects without participating in the learning process, which is a concern. This raises worries about the value of traditional learning experiences and the degradation of academic integrity.	77	3	-	-	3.96	0.25	80
2	Some students worry that AI will take the place of or lessen the importance of professors in the educational process, especially when it comes to offering individualized feedback, emotional support, and mentorship. Students cherish human connection in education because it is sympathetic and encouraging, and this could lead to its extinction.	55	25	-	-	3.68	0.47	80
3	The way AI systems gather and store behavioral, academic, and personal data worries many students.	49	31	-	-	3.61	0.51	80
4	The ease with which AI systems can produce essays, answers, or other content worries students since it may encourage some individuals to cheat or plagiarize.	71	9	-	-	3.88	0.33	80
5	Many students believe that the ethical frameworks and guidelines governing the use of AI in education are inadequate.	66	14	-	-	3.82	0.38	80
	Average mean					3.79	0.38	

Table 3 showed that with a mean score of 3.79, the study found that students may use AI tools unethically, such as producing papers or projects without participating in the learning process, which is a concern. This raises issues about the value of traditional learning experiences and the degradation of academic integrity.

Research Question 4: To what extent are undergraduate students in both departments willing to adopt AI tools for learning, and how do they perceive their readiness to use AI in their studies?

Table 4. Willingness to adopt tools and students' readiness to use AI in their studies.

S/N	Items' willingness to adopt tools and students' readiness to use AI in their studies.	SA	A	SD	D	Mean	SD	Total no of respondents
1	Students who are comfortable with technology and are familiar with AI-powered apps in other sectors of life, such as social media or entertainment, are more inclined to accept AI technologies in their learning environments.	54	26	-	-	3.67	0.47	80
2	For certain students, particularly those who are less comfortable with technology, there is difficulty in embracing AI tools. They may feel unprepared to use complicated AI-driven platforms or may lack the confidence to manage these tools efficiently.	49	31	-	-	3.61	0.50	80
3	One of the main factors driving adoption is AI's capacity to deliver individualized learning experiences. Students appreciate the customization AI provides because it enables them to receive personalized feedback and concentrate on areas where they need the most development, which can boost learning outcomes.	72	8	-	-	3.90	0.33	80
4	The intricacy of AI tools and their integration with current learning platforms frequently causes students to voice worries. They may worry that incorporating AI	68	12	-	-	3.85	0.37	80

S/N	Items' willingness to adopt tools and students' readiness to use AI in their studies.	SA	A	SD	D	Mean	SD	Total no of respondents
	tools into their academic routine may cause them to become overly dependent on technology or divert their attention from their primary learning goals.							
5	Pupils who are tech-savvy, receptive to new ideas, and keen to use digital resources for education frequently believe they are well-prepared to embrace AI. They are comfortable utilizing AI to supplement their education, increase their output, and obtain extra learning assistance.	61	19	-	-	3.76	0.42	80
	Average mean					3.75	0.41	

Table 4 showed that with a mean score of 3.75, the study found that one of the main factors driving adoption is AI's capacity to deliver individualized learning experiences. Students appreciate the customization AI provides because it enables them to receive personalized feedback and concentrate on areas where they need the most development, which can enhance learning outcomes.

Research Question 5: In what ways do undergraduate students in both departments believe AI will impact their future career opportunities, and how does it shape their attitudes toward technology in education?

Table 5. Impact and attitude of students towards technology in education.

S/N	Items impact and attitudes of students towards technology in education.	SA	A	SD	D	Mean	SD	Total no of respondents
1	Many students see that AI is increasingly being integrated into various sectors, and having skills in AI tools can provide them with a competitive edge in the employment market.	75	5	-	-	3.93	0.10	80
2	AI is viewed by students as an essential skill for their future employment, particularly in industries like technology, healthcare, business, and engineering. They believe that being able to work with AI technologies and understanding AI will be crucial for adapting to the ever-changing demands of the workplace.	66	14	-	-	3.82	0.30	80
3	Many pupils have a good attitude about the use of AI in education. They consider AI a tool that can enhance their learning experience by delivering personalized study strategies, rapid feedback, and specialized resources.	58	22	-	-	3.72	0.40	80
4	Nowadays, many students believe that technological literacy is necessary for both academic and professional success. Due to the widespread use of AI in education, students are more receptive to incorporating various technologies into their studies.	70	10	-	-	3.87	0.23	80
5	Many students are aware that technology will continue to advance quickly, especially artificial intelligence. They are therefore more receptive to the notion of lifelong learning in order to keep abreast of the most recent developments.	61	19	-	-	3.76	0.36	80
	Average mean					3.82	0.27	

Table 5 shows that with a mean score of 3.82, the study found that many students see AI as being increasingly integrated into various sectors, and having skills in AI tools can provide them with a competitive edge in the employment market.

4. HYPOTHESES

H_{O1}: *There is no significant difference between students in the Department of Curriculum Studies and Educational Technology and students in the Department of Educational Management, Faculty of Education, University of Port Harcourt, regarding undergraduate students' perceived benefits from the use of AI in enhancing their learning experiences.*

Table 6. Table of analysis to examine the significant difference between students in the Department of Curriculum Studies and Educational Technology and students in the Department of Educational Management, Faculty of Education, University of Port Harcourt's undergraduate students' perceived benefits from the use of AI in enhancing their learning experiences.

Group	Mean	Standard deviation	N	Df	Standard error	Z (Cal)	Z (Tab)	Decision
Curriculum studies and educational technology	3.97	0.28	40	78	0.12	1.83	1.96	Accepted
Educational management	3.75	0.44	40					

Table 6 examines the significant difference between students in the Department of Curriculum Studies and Educational Technology and those in the Department of Educational Management regarding their perceived benefits of AI in enhancing their learning experiences. The results indicate that students in Curriculum Studies and Educational Technology have a higher mean score ($M = 3.97$, $SD = 0.28$) compared to their counterparts in Educational Management ($M = 3.75$, $SD = 0.44$). However, the calculated Z-value (1.83) is less than the critical Z-value (1.96), leading to the acceptance of the null hypothesis. This suggests that there is no statistically significant difference in the perceived benefits of AI between the two groups.

H_{O2}: There is no significant difference between the challenges and concerns that undergraduate students in both departments associate with the use of AI in their academic journey.

Table 7. Table of analysis to examine the significant difference between students in both departments' challenges and concerns undergraduate students associate themselves with the use of AI in their academic journey.

Group	Mean	Standard deviation	N	Df	Standard error	Z (Cal)	Z (Tab)	Decision
Curriculum studies and educational technology	3.95	0.28	44	78	0.14	2.35	1.96	Rejected
Educational management	3.62	0.50	36					

Table 7 analyzes the significant difference between students in the Department of Curriculum Studies and Educational Technology and those in the Department of Educational Management regarding the challenges and concerns they associate with the use of AI in their academic journey. The results show that students in Curriculum Studies and Educational Technology have a higher mean score ($M = 3.95$, $SD = 0.28$) compared to students in Educational Management ($M = 3.62$, $SD = 0.50$). The calculated Z-value (2.35) exceeds the critical Z-value (1.96), leading to the rejection of the null hypothesis ($H0_2$). This indicates a statistically significant difference between the two groups in their perceived challenges and concerns related to AI use in education.

H_{O3}: There is no significant difference between students in both departments regarding how students perceive the ethical implications of AI use in education, particularly concerning data privacy, bias, and transparency.

Table 8. Table of analysis to examine the significant difference between students in both departments students perceive ethical implications of AI use in education, particularly concerning data privacy, bias, and transparency.

Group	Mean	Standard deviation	N	Df	Standard error	Z (Cal)	Z (Tab)	Decision
Curriculum studies and educational technology	3.96	0.25	47	78	0.14	2.50	1.96	Rejected
Educational management	3.61	0.51	33					

Table 8 examines the significant difference between students in the Department of Curriculum Studies and Educational Technology and those in the Department of Educational Management regarding their perceptions of the ethical implications of AI use in education, particularly concerning data privacy, bias, and transparency. The results indicate that students in Curriculum Studies and Educational Technology have a higher mean score ($M = 3.96$, $SD = 0.25$) compared to students in Educational Management ($M = 3.61$, $SD = 0.51$). The calculated Z-value (2.50) exceeds

the critical Z-value (1.96), leading to the rejection of the null hypothesis ($H0_3$). This finding suggests a statistically significant difference between the two groups in how they perceive the ethical concerns associated with AI in education.

H_{04}: There is no significant difference between students in both departments who are willing to adopt AI tools for learning, and how they perceive their readiness to use AI in their studies.

Table 9. Table of analysis to examine the significant difference between students in both departments is willing to adopt AI tools for learning, and how do they perceive their readiness to use AI in their studies.

Group	Mean	Standard deviation	N	Df	Standard error	Z (Cal)	Z (Tab)	Decision
Curriculum studies and educational technology	3.90	0.33	41	78	0.14	2.07	1.96	Rejected
Educational management	3.61	0.50	39					

Table 9 investigates the significant difference between students in the Department of Curriculum Studies and Educational Technology and those in the Department of Educational Management regarding their willingness to adopt AI tools for learning and their perceived readiness to use AI in their studies. The results show that students in Curriculum Studies and Educational Technology have a higher mean score ($M = 3.90$, $SD = 0.33$) compared to students in Educational Management ($M = 3.61$, $SD = 0.50$). The calculated Z-value (2.07) is greater than the critical Z-value (1.96), leading to the rejection of the null hypothesis ($H0_4$). This indicates a statistically significant difference between the two groups in their willingness to adopt AI tools and their perceived readiness to integrate AI into their learning process.

H_{05}: There is no significant difference between students in both departments who believe AI will impact their future career opportunities, and how it shapes their attitudes toward technology in education.

Table 10. Table of analysis to examine the significant difference between students in both departments who believe AI will impact their future career opportunities, and how it shapes their attitudes toward technology in education.

Group	Mean	Standard deviation	N	Df	Standard error	Z (Cal)	Z (Tab)	Decision
Curriculum studies and educational technology	3.93	0.10	40	78	0.11	1.90	1.96	Accepted
Educational management	3.72	0.40	40					

Table 10 examines the significant difference between students in the Department of Curriculum Studies and Educational Technology and those in the Department of Educational Management regarding their belief that AI will impact their future career opportunities and shape their attitudes toward technology in education. The results indicate that students in Curriculum Studies and Educational Technology have a higher mean score ($M = 3.93$, $SD = 0.10$) compared to students in Educational Management ($M = 3.72$, $SD = 0.40$). However, the calculated Z-value (1.90) is lower than the critical Z-value (1.96), leading to the acceptance of the null hypothesis ($H0_5$). This suggests that there is no statistically significant difference between the two groups in their perceptions of AI's impact on their career prospects and attitudes toward technology in education.

5. DISCUSSION OF FINDINGS

The present study supports that of Khanzode and Sarode (2020), who discovered that students thought AI-powered learning tools, like adaptive learning platforms and intelligent tutoring systems, were good at allowing them to customize their education. These tools received special recognition for their ability to meet the needs of each unique

learner, provide quick feedback, and give access to additional learning resources. Hoffman (2019) found that AI-based learning platforms providing personalized content have enhanced 72% of students' understanding of difficult subjects.

Furthermore, AI-powered virtual assistants were viewed as a practical means of receiving prompt responses to academic questions, which improved students' involvement in their studies.

According to Gökçearslan, Tosun, and Erdemir (2024), 58% of students were worried about being overly reliant on AI tools, which could result in the loss of interpersonal skills and conventional teaching techniques. According to a different study by Tang, Chang, and Hwang (2023), 46% of students were worried that AI would replace human teachers because they thought that the level of one-on-one interaction and assistance during the learning process would be lower. Students also expressed concerns about data privacy, specifically regarding how AI-powered platforms gather and use personal information. In the Zhang and Li (2021) survey, a sizable percentage of students (64%) expressed concerns about the misuse or sale of their personal information to outside parties.

Many students acknowledge the advantages of artificial intelligence (AI), but Mukherjee (2022) discovered that fewer are informed about the ethical dilemmas related to its application. Ahmed (2018) found that 52% of students expressed concerns about algorithmic bias, where AI systems tend to benefit specific groups more than others. Furthermore, a study conducted by Sîrghi, Voicu, Noja, and Socoliuc (2024) pointed out worries about the transparency of AI algorithms, with 61% of students feeling uneasy about the unclear nature of AI decision-making. This lack of comprehension regarding AI's decision-making processes has fueled skepticism, particularly when evaluating academic performance.

Kasumu and Agbarakwe (2024) found that students who are interested in technology often participate in extracurricular activities such as coding clubs, robotics competitions, or STEM programs, and these activities provide hands-on experience with AI-related tools and concepts, fostering a deeper understanding of technology utilization.

6. CONCLUSION

The study on undergraduate students' perspectives on the role of artificial intelligence (AI) in education highlights both its transformative potential and the challenges associated with its adoption. AI-powered tools offer significant benefits, such as personalized learning experiences, improved academic performance, and enhanced research support. However, concerns persist regarding ethical issues, including data privacy, algorithmic bias, and the transparency of AI-driven decisions.

While many students recognize the advantages of AI in education, limited awareness of its ethical implications often leads to skepticism, particularly regarding fairness and accountability in AI-based assessments. To maximize AI's positive impact, it is essential to promote AI literacy among students and educators, ensuring they understand both its benefits and risks. Additionally, educational institutions should implement policies that emphasize ethical AI use, fostering trust and responsible integration in academic settings. Ultimately, successfully incorporating AI in education requires a balanced approach that embraces innovation while addressing ethical concerns to ensure AI serves as an equitable and inclusive tool for learning.

7. RECOMMENDATIONS

Based on the conclusion, the researchers recommended that.

1. Higher education institutions ought to integrate AI literacy programs into their course offerings to aid both students and educators in comprehending AI technologies, their uses, and ethical considerations.
2. Educational institutions and developers must emphasize transparency in the decision-making processes of AI.

3. Universities should create ethical guidelines and policies that guide the responsible application of AI in educational settings.
4. Students should be motivated to engage in AI research and development initiatives to enhance their understanding of AI operations and areas for improvement.
5. Universities ought to carry out regular assessments to evaluate the effects of AI-based tools on student involvement, academic performance, and ethical issues, making necessary modifications to enhance their application.

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