AI Practices Among Undergraduate Students: A Case Study of Ace College for Girls Kalaske

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Abstract
This study investigates how undergraduates at Ace College for Girls, Kalaske, utilize AI-powered tools, including their understanding of and frequency of use of these technologies and how they perceive the role of these technologies in their academic experiences. It was guided by the Technology Acceptance Model (TAM), Unified Theory of Acceptance and Use of Technology (UTAUT), and Self-determination Theory (SDT) and investigates how these frameworks mediate students' attitudes and motivations regarding AI adoption. A mixed-methods approach was used, comprising questionnaires and semi-structured interviews. The reason is that AI tools are mainly aligned with learning support and research; they are perceived as valuable because they can offer personalized learning experiences. Integration continues to be limited by limited training, data security, and over-reliance. The results highlight the need for focused training and curriculum-based integrated AI tools in education to improve outcomes. This research paper adds to the existing body of knowledge regarding AI in education with localized insights and actionable recommendations for educators and policymakers. This research addresses key barriers to adopting AI for transformative benefits to learning in higher education, where gaps exist in understanding student engagement.
Keywords: Artificial Intelligence, AI Practices, Undergraduate Students.

Introduction

Artificial Intelligence (AI) has emerged as a game changer in many industries, changing how people interact with technology and access information. AI tools have become instrumental innovations in the educational area, as they have the potential to transform learning processes through improved pedagogical methods, individualized learning, and increased involvement of learners (Liu, 2022; Zhang et al., 2023) In a classroom context, these tools are rapidly being integrated into instruction (Huang et al., 2023), leading to an ongoing dialogue among educators, researchers, and policymakers about their effects on learning, especially in higher education.

Adaptive learning platforms, intelligent tutoring systems, and AI-powered feedback mechanisms, in particular, have shown great potential in creating personalized learning environments, effectively improving educational productivity (Zhou et al., 2022). Despite their dramatic increase, there is limited knowledge of student awareness, use, and perceptions of AI in localized educational environments since global development and use of AI, including insights into students, have been widely discussed. This study is based on Ace College for Girls, Kalaske and aims to

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investigate how undergraduate students engage with AI-powered tools, their frequency of use, and their perceived impact on their academic experiences. This study seeks to ascertain the awareness of AI-powered tools and their use age among undergraduate students at Ace College for Girls, Kalaske, and to explore the implications of AI technologies on the student's learning process, training, and education.

The inception of AI in education has evolved into several iterations, from simple computer-assisted instruction to sophisticated AI systems that can analyze student behaviour and provide personalized feedback. To date, most studies highlight the integration and sharing of AI tools worldwide to enrich learning experiences but leave under-researched how far this evolution meets the students of the present in their actual local contexts (Huang et al., 2023). AI is generally considered beneficial in education for accessibility and personalized learning (Zhou et al., 2022). However, how students understand and engage with AI still has critical implications for implementation. While numerous AI tools have entered the education landscape, few studies investigate the practices and perceptions of students in localized areas, especially in developing regions. Without this data from contexts like these, we cannot fill the gap around how culture, institution and technology shape student engagement with AI. Closing this gap is essential for identifying strategies that can promote AI's responsible and fair use in various learning settings.

By exploring how AI has affected the education sector, this research seeks to add to an evolving conversation at a localized level at Ace College for Girls, Kalaske. It aims to raise awareness among educators, administrators, and policymakers of the risks and opportunities of integrating AI into higher education. The findings are expected to inform the design of strategies to enhance students' academic experiences through meaningful interactions with AI-powered systems and tools. This study is motivated by the growing presence of AI in educational spaces and the need for a better understanding of the practical transfer of AI for students in specific contexts of culture and the institution. Examining undergraduate students within a particular region, the study aims to provide insight into the local landscape of AI in undergraduate education. The big idea behind this project is to fill out the big knowledge gap and offer actionable insights to optimize AI in higher education as per its novel role.

Research Questions
The study aimed to address the following research questions:
1. How frequently and for what purposes did students use AI-powered tools and software?
2. How did students perceive the usage of AI-powered tools and technologies in their learning?

Statement of the Problem
Artificial intelligence can revolutionize students' learning by enabling an adaptive, personalized learning experience tailored to their unique needs and preferences (Zhou et al., 2022). Despite the proliferation of AI tools in educational institutions worldwide, little is known about undergraduate students' awareness and use of such technologies. Moreover, there has been limited exploration of how students view the role of AI in their learning pathways and how those perceptions may subsequently impact their overall academic experience. This gap motivated the present study, which aimed to ascertain the AI practices used at Ace College for Girls, Kalaske and to determine how often and for what purposes students were using AI-powered tools and their perceptions of how these tools impacted their learning.

Theoretical Framework

This research was based on several theories widely recognized about the adoption and usage of AI technologies in education. These theories provided a conceptual frame for understanding students' interactions with AI-assisted tools and how their conceptions of those tools could shape their learning outcomes. The Technology Acceptance Model (TAM) (Davis, 1989) guided the study, which highlights how students' perceptions of ease of use and usefulness of AI tools impacted their intention to use these technologies within their learning. TAM states that that attitude toward use is derived from beliefs about technology's effectiveness and ease of use. To extend existing models, the authors adopted the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003), operationalizing performance expectancy, effort expectancy, social influence and facilitating conditions in the context of examining what led students to use AI tools in the context of their study. Because of this theory, I gained a broader insight into the outside determinants that could impact the usage of AI by students in general. Moreover, Self-Determination Theory (SDT) (Deci & Ryan, 2000) was used to examine the impact of intrinsic motivation on students' engagement with AI tools. According to SDT, when people find their activities autonomous, competent, and related, they are more likely to pursue them enthusiastically and for the long haul. This theory informed our investigation of how students' sense of control over their approach to learning (autonomy) and their competence in using AI tools could affect their perception of AI's impact on their academic success in the context of AI.

Conceptual Framework

The study was guided by a conceptual model delineating which AI practices and perceived learning and moderating variables play a significant role in the process. The independent variable (IV) in the model in the model was AI practices: students' awareness of and usage of AI-powered tools. This research's dependent variable (DV) was perceived learning, that is, students' perceptions regarding how AI tools impacted their learning outcomes. Moderating variables (MV) were autonomy in using AI Tools and students' ability to use AI technologies effectively—the Conceptual Framework Overview.

AI Practices (awareness & usage) → Perceived Learning

This Framework directed the study and helped to focus on the relationship among students' appropriation and use of AI tools, their perceived learning outcomes using this type of tool, and the variables that could potentially affect these perceptions (e.g., students' autonomy to use AI tools and perceived competence while using AI tools).

Significance of the Study

This research is essential as it adds to the increasing literature on AI in education. With a particular emphasis on the case study conducted with undergraduate students at Ace College for Girls, Kalaske (2023) highlighted the nuances of AI practices and perceptions in a localized educational setting. The results can help educators, administrators, and policymakers identify potential opportunities and challenges for incorporating AI tools, such as ChatGPT, in higher education. In addition, the study's results can inform future research and promote the effective use of AI in academic settings.

Literature Review

Over the past few years, there has been increasing interest in the use of Artificial Intelligence (AI)-based tools and software in education and the impact of such tools in an educational ecosystem. Research on AI in accordance with the practices of undergrad students found that these practices have both opportunities and challenges when applied in their decision-making processes. The Review focuses on synthesizing the existing literature on AI usage, perceptions of students, and condensed theoretical prisms through which AI affects learning.

Insights and Awareness of AI in Students

We also agree that undergrad students have recently become familiar with AI technologies and started using them in their studies. For example, Kaur and Sharma (2022) reported that students often used AI-driven tools like essay writing, research assistance, and language learning. However, the frequency and depth of AI use depended on the student's discipline and familiarity with the technology. Likewise, a study performed by Gupta et al. (2023) demonstrated that, although students generally knew about AI tools such as language processing applications and chatbots, they still had minimal understanding of the deeper capabilities of AI. While students indicated that AI was used for basic tasks (grammar check, schedule management) in their study, they felt unsure about applying it to more complicated academic assignments. Again, perceived barriers to adopting AI tools were the lack of training, access to advanced tools, and anxiety about data privacy (Agarwal & Mishra, 2022). These obstacles affected how well they used AI resources in their learning environments. Moreover, the extent of student awareness was sometimes associated with experience with digital learning settings and usage of AI-based tools in their academic institutions (Sharma & Singh, 2023).

Learning to Perceived AI

There has to be some interest in the perception of AI's role in learning. Studies show that students' attitudes toward AI are influenced by their autonomy and competence using these tools. The study was based on Davis's (1989) Technology Acceptance Model (TAM), which provided a theoretical framework that could help researchers understand how students adopted AI technologies and showed that perceived ease of use and perceived usefulness were two primary constructs that influenced students' acceptance of the AI technologies. As suggested by Patel and Jain (2022) in their study, the students with confidence in using AI tools showed better distinguished AI tools in a positive sense, and they believed it to be a value-added tool for their learning experiences.

Research by Venkatesh et al. Additional support for this finding emerged from Venkatesh et al. (2003) Unified Theory of Acceptance and Use of Technology (UTAUT), which identified performance expectancy and effort expectancy as essential predictors of intention to use AI. Students who viewed AI as a tool that could help them perform better academically without investing significantly in understanding how to use such technologies were also more likely to adopt them. Another central framework for understanding students' perceptions of AI in education emerged from self-determination theory (Deci & Ryan, 2000). Based on this theory, the degree to which students feel autonomous, competent, and related to others will impact their motivation to engage with an AI tool. Specifically, students with unrestricted access to the use of AI tools independently and those who perceived themselves as competent in their ability to use them were found to have significantly higher levels of motivation to learn (Mishra & Saha, 2022). Conversely, having been forced to use AI tools or struggling with such tools diminished the perceived value of these tools as a part of learning in these students.

The Effect of AI on Learning Outcomes
Several studies have examined the relationship between the use of AI and perceived learning outcomes. Finally, in a review conducted by Joshi and Mehta (2022), the researchers suggested that incorporating AI tools in E-learning could markedly improve the academic side of students' results if they were utilized to their full potential. Advanced AI-driven platforms that adapted to individual learning needs were found to enhance both student engagement and performance. For example, AI-based systems that offer immediate feedback on assignments enable students to identify areas of improvement, leading to improved academic performance (Ghosh & Kumari, 2023). However, the effect of AI on learning was not always consistently positive. Singh and Kumar (2022) found that, especially in students with low levels of digital literacy, AI-based learning tools did not yield benefits. Many students sought out technology over provided tools, interacted with them in ways we could not have anticipated, and ultimately felt frustrated and disengaged. Also, some AI systems were not perceived as providing personalized support, meaning students believed the technology could not satisfy their learning needs.

Theoretical Framework and Model
One of the most used frameworks to assess the acceptance of AI technologies in education is the Technology Acceptance Model (TAM) (Davis, 1989). Davis states that perceived usefulness and ease of use are essential factors that decide if the students will use a specific technology. In AI context, how students perceive the role of AI tools in their learning and their convenience in interacting with such tools have impacts on overall acceptance of AI (Agarwal & Mishra,2022)
UTAUT (Unified Theory of Acceptance and Use of Technology), Venkatesh et al. (2003). Artificial Intelligence in Technology Acceptance: A Review and Future Directions. This theory proposes that several factors influence students' use of AI-powered tools: performance expectancy, effort expectancy, social influence, and facilitating conditions. According to studies conducted by Sharma and Singh (2023), the factors above were also instrumental in predicting the adoption of AI by students in their education, with performance expectancy and facilitating conditions being the most significant predictors.
Self-determination theory (Deci & Ryan, 2000) also provides a way of thinking about students' motivation to use AI tools. According to this theory, basic psychological needs, such as autonomy, competence, and relatedness, contribute to motivation. Regarding AI and education, students who were granted freedom to use AI tools, alongside feeling competent during the process, tended to view AI as a practical learning tool (Mishra & Saha, 2022).
This Review explores the existing literature on the practices of AI among undergraduates, pointing to trends in awareness and usage of AI tools in academic settings, as well as perceptions about their effectiveness for improving learning outcomes. Alternatively, hit on the proper use of AIs that enhance students' academic performance, etc., but relatively depend on students' competence, self-governing, access to these tools, etc. The most common theoretical frameworks used in these studies are TAM, UTAUT, and self-determination theory, which allow researchers to contrast students' acceptance and use of AI in learning. However, more work remains to be done to understand the complex realities of using AI in different educational contexts and the challenges facing students in using these technologies effectively.

Research Methodology
The study utilized a mixed-method research approach, combining qualitative and quantitative methods to understand better the AI practices of undergraduate students at Ace College for Girls,

Kalaske. A case study design was used to examine the specific context of AI awareness, use, and perceived impact on learning at this institution.

Approach
A mixed-methods approach was used, with qualitative and quantitative data collection methods. The case study design offered an in-depth exploration of AI practices within Ace College for Girls, Kalaske undergraduate students. Using this design, the researcher obtained rich, contextualized data and derived valuable insights from both the numerical and narrative responses.

Population and Sampling
Participants were undergraduate students registered in Ace College for Girls, Kalaske, for ADP and BS programs. This purposive sampling technique helped include participants with adequate exposure to AI tools and technologies, representing people who had enough experience with AI practices in their settings. The study sought to recruit a diverse cohort of students from different academic disciplines.

Data Collection Instruments
Two instruments were used for data collection: close-ended questionnaires and semi-structured interview protocols. The questionnaire collected quantitative information concerning the frequency and purposes of AI tool usage, as well as the students' perceptions of the impact of AI on their learning. It contained Likert-scale questions enabling a systematic evaluation of the responses. On the other hand, these interviews were semi-structured, allowing for qualitative knowledge about students' experiences, attitudes, and perceptions in the context of AI in education. We conducted follow-up interviews with a subset of these participants to explore the quantitative findings in further depth.

Data Collection Procedures
The distribution of the questionnaire to all participants marked the start of the data collection process. Students were given informed consent letters and told their responses would be confidential. Following the completion of the questionnaire, a subset of students was individually interviewed in this study, with an audio recording conducted after obtaining written informed consent. We conducted the interviews in an open-ended manner, inviting students to describe their experiences and understandings in their own words.

Data Analysis Technique
The quantitative data derived from the questionnaires were analyzed using descriptive statistics (mean score and frequency distribution) to identify patterns of AI usage and students' perception levels. The allegorical data received from both interviews were thematically analyzed using thematic analysis by producing codes and thematic mapping of the responses provided, which speak about the student's experiences and the perceived impact of artificial intelligence-based tools on learning. By merging both data sets, the data provided an overall insight into the research questions.

Ethical Considerations
Ethical matters were of the utmost importance throughout the research. Participants were debriefed and made fully aware of the study design, the voluntary nature of their participation, and how their

responses would be kept confidential. The study followed the institutional ethical guidelines, respecting participants by maintaining anonymity and refraining from asking for identifying information.

Implications

This study was expected to provide practical implications to the administration and policymakers of Ace College for Girls, Kalaske. The findings could inform the development of initiatives that improve AI literacy, teach the appropriate use of AI tools, and support students in utilizing AI technologies in their studies. The study, therefore, aimed to learn about the relationship between AI practices and perceived learning to contribute to a broader exploration of the role of AI within higher education.

Data Analysis

This data analysis part describes the processing of data obtained from the research study on AI on undergraduate students from Ace College for Girls, Kalaske. In this data collection, we focused on quantitative and qualitative data to get a complete view of students' experiences, perceptions, and usage of AI tools within their educational context. Descriptive statistics were used for the quantitative data collected by questionnaires, whereas thematic analysis was employed for the qualitative data collected from the interviews.

Quantitative Data Analysis

Descriptive statistics were used to analyze the quantitative data obtained through the close-ended questionnaire. The questionnaire directly measured the frequency and purposes of using AI tools and students' perceptions of how AI affected their learning. This section presents the results of the data analysis, including frequency distribution, means scores, and percentage of response breakdowns.

Frequency of AI Tool Usage

One of the major areas of interest was not how students were using the AI tools but rather how often. The frequency distribution of responses is below in table 1.

Table 1: Frequency of AI Tool Usage Among Students

Frequency of AI Usage	Number of Students	Percentage (%)
Daily	12	20%
Weekly	25	41.7%
Occasionally	18	30%
Never	5	8.3%
Total	**60**	**100%**

As can be seen in table 1, most students (41.7%) had used AI tools weekly. A smaller number of students (20 percent) used them on a daily basis, with a minority (8.3 percent) stating that they never used AI tools at all. This indicates that students were using AI tools to some extent within their academic pursuits.

There is distinct interest in utilizing AI tools for learning assistance (66.7%) and research (50%), as shown in the data. This matches with the tools' perceived usefulness in making academic work

easier. But with 25% using AI for content creation and a mere 16.7% for information retrieval, there's clear underutilization of AI's potential.

The findings indicate that students are using AI tools to address immediate academic needs, and not much else. This gap can be addressed by institutions by laying out advanced AI application workshops on creative content creation and intuitive data extraction and processing. This would allow students to make the most of AI technologies.

Purposes of AI Tool Usage

It was also asking students for what specific purposes they were using AI tools. There were different fields of response options, such as learning assistance, research, content generation, and general information retrieval, etc. In Table 2, we present the frequency distribution of responses.

Table 2: Purposes of AI Tool Usage

Purpose of Usage	Number of Students	Percentage (%)
Learning Assistance	40	66.7%
Research	30	50%
Content Creation	15	25%
Information Retrieval	10	16.7%
Total	**60**	**100%**

The purpose of using AI tools was most commonly reported as learning assistance (66.7%), followed by research (50%) as shown in table 2. Even less students used AI tools for content creation (25%) and information retrieval (16.7%). That means students were mostly using AI tools to enhance their study and academic research.

The data suggest a clear preference for employing AI tools as a means of assistance when learning (66.7%) and conducting research (50%). This aligns with the perceived utility of the tools in simplifying academic tasks. Still, these numbers suggest that the full capabilities of the AI are currently underused content creation at 25% and information retrieval at 16.7%.

These findings indicate that students use AI tools to address short-term academic needs without exploring their more expansive capabilities. They could meet this need through advanced workshops focused on generative AI usage — for instance, in developing creative content or fetching complex data. Doing so would enable students to leverage the capabilities of AI technologies.

Perceived Impact of AI on Learning

To examine students' perceptions about how AI impacted their learning, students rated statements regarding AI's utility, efficacy, and effect on their academic success. The responses were rated on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). The average scores for each statement can be seen in table 3.

Table 3: Perceived Impact of AI on Learning

Statement	Mean Score (SD)
AI tools help improve my academic performance	4.1 (0.8)
AI tools make learning more engaging	3.8 (1.0)

Statement	Mean Score (SD)
AI tools are effective for understanding concepts	4.0 (0.9)
AI tools provide personalized learning experiences	4.2 (0.7)

The scores show that generally, over all the dimensions, the students had positive perception of the AI tools' impact on their learning (with the highest mean score is for "AI tools provides personalized learning experiences"), with the highest mean score for the statement "AI tools provide personalized learning experiences" (4.2). This indicates students appreciated the ability of AI to accommodate their unique learning needs.

The ratings of the students indicate a relatively positive view about AI tools, with the initiated highest value (4.2) for AI tools develop personalized learning experiences. This suggests a robust recognition of AI's involvement in customizing educational resources. Lower scores are provided for engagement with 3.8, confirming an area for improvement in AI interaction being more dynamic and engaging.

These high scores for personalization are consistent with the wider literature on AI in education, which frequently points to individualized learning as a prime benefit. But the lagging engagement score indicates an opportunity that may be met through the addition of gamified or interactive AI tools. On the qualitative side, follow-ups can explain why engagement scores may trail other metrics, yielding actionable insights for developers of the tools and teachers.

Qualitative Data Analysis

The data, gathered through semi-structured interviews, were analyzed using thematic analysis. The goal was to detect common themes about students experience, attitudes, and perceptions of the utilization of AI in education. Key Themes Reflecting the Analysis

Theme 1: Enriched Learning Experience

A significant number of students noted that these AI systems greatly improved their educational experience, especially regarding tailored feedback and learning at their own pace. "*Asking AI about a topic makes it easier for me to understand better since I can get instant explanations and examples that suit the level that I am currently at,*" participant 2.

The feedback underscores the transformational ability of AI to develop individualized learning settings. Progressive assessment combined with ChatGPT enables students to get immediate explanations and personalized feedback, showcasing how AI fills the learning gaps left by traditional education. This theme highlights a key benefit of AI it supports self-directed and student-centered learning. Yet it also represents a call for educators to integrate these tools judiciously, so they supplement rather than supplant traditional instruction. The from Participant 2 further substantiates that how adapted AI is based on your learning level that makes it so crucial to cater to many students in one room.

The potential of enriched learning experience is very significant, however it is important to see if this enhanced experience leads to improved critical thinking and problem-solving or is just an additional round of convenience and accessibility.

Theme 2: Worries over Reliance on AI

A recurring concern among students was the risk of over-relying on AI. But some students said they were concerned that overreliance on A.I. could undermine their critical thinking and problem-

solving skills. As one interviewee put it, *"I think I might get too reliant on AI for an answer, and that would inhibit my thinking myself,"* participant 5 .

In addition to that, concerns about how to avoid becoming too reliant on AI resonates with broader discussions about the place of technology in education. Students should be wary of the erosion of critical thinking and problem-solving skills. Participant 5 stated, "I feel like if I relied on AI too much, I wouldn't be independent dependence on AI," which reflected how I felt about over-reliance on AI. This theme presents crucial questions around the tension between using AI for efficient purposes and developing core academic skills by virtue.

Such concerns show that educators must adopt some protections, like using AI tools in manners that foster analytical thinking as well as automation. If these risks are countered by teaching students to critically evaluate AI-generated outputs, perhaps that's something we could all get behind.

Theme 3: Academic Research and the Role of AI

Many respondents noted that AI tools were especially helpful in academic-field research, where they aided in literature discovery and expedited the research workflow. In the words of one of the students, *"AI helps me access a range of research papers and saves me time and effort for my academic projects,"* participant 10.

AI can save researchers time, be very helpful in literature discovery, and help them manage their workflow. Participant 10's feedback exemplifies how AI streamlines the preliminary research process, enabling students to spend less time on menial tasks and more on thorough analysis. This sets a tone condensing the use of AI to help improve academic productivity.

Although AI undoubtedly benefits academic research, it is equally important to consider the long-term effects of academic research skills. Relying on AI too much for literature discovery can mean students are limited to specific sources and less able to engage in critical thinking about the material itself.

Theme 4: Inadequate Training and Support

Besides, some students said they need more training and support in using AI tools effectively. Although AI was helpful, they felt ill-equipped to take full advantage of it. *"I wish we had more workshops on using AI tools effectively for our studies," participant 15.*

Another common theme appears to be the need for training and support, a significant obstacle to effective AI adoption. Participant 15's preference for workshops speaks to the disconnect in institutional preparedness. However, this theme acknowledges that while students see the tools' potential, they frequently do not yet feel prepared to make the most of them.

Colleges and universities should prioritize AI-driven digital literacy programs. Students require formal training and ongoing support to integrate AI confidently and competently into their academic practices.

Integration of Quantitative and Qualitative Data

This combined approach was crucial in understanding the student's experience with AI tools more comprehensively. The quantitative usage data revealed that AI tools were often used for study help and research, and students generally felt these tools benefited their academic performance. These quantitative findings were supported further by the qualitative data, where students articulated how AI supports personalized learning but also expressed apprehensions of over-dependency and the need for more training. The study sheds much light on the usage of AI tools and the willingness

and the apparent challenges students face when using AI within their course environment by combining both data sets.

The combination of both data types strengthens the study's conclusions. The quantitative data demonstrate the broad use of AI tools, and the qualitative insights help illuminate students' experiences with and fears about these tools. Such an integrated approach gives a comprehensive perspective, showing both the advantages and disadvantages of AI in the education sector.

This takes numerical trends and personal stories and stitches them into a model that allows for actionable recommendations. Nonetheless, future research may explore themes in greater detail through subgroup analysis to determine if discipline, previous electronic exposure, etc., affects the identified themes.

The study is further divided into sections exploring how students interpret and use AI resources within the educational realm. Although AI offers many benefits, the issues of dependency, poor training, and lack of critical thought demonstrate the importance of responsible integration. These institutions must mitigate these threats by building an environment wherein AI can help in addition to traditional learning processes. Such a balance will ensure students take advantage of AI's abilities while maintaining important academic skills.

Summary of the Findings

The data analysis process provided the following key insights into the AI practices that undergraduate students at Ace College for Girls, Kalaske, adopted.

1. AI tools were used extensively to aid learning, and for research, about a fifth of students said they used one of the tools at least once per week.
2. Students viewed AI as an asset for improving learning and academic performance and especially appreciated personalized learning opportunities.
3. Although the impact of AI was largely positive, it was noted that overreliance on the tool, paired with a lack of training, could work against the successful implementation of AI in the workplace.

Overall, while students felt that integrating AI tools into the curriculum was beneficial, they desired more support and guidance on how to use these tools effectively.

Discussion

This chapter presents study findings that examined the use of Artificial intelligence (AI) tools by Ace College for Girls, Kalaske undergraduate students. It reflects on the important learnings from this analysis of quantitative and qualitative data and what this might mean for student learning and outcomes. The conversation is grounded in the AI literature related to its use in education, what the role of AI is in learning, students' perceptions of AI, and why wider adoption has not taken place.

The subsequent data analysis discusses the significant aspects of how undergraduate students at Ace College for Girls, Kalaske used, perceived and faced challenges from AI tools. The analysis shows that AI tools are used primarily every week (41.7%) and are mainly used for learning assistance (66.7%) and research (50%). In comparison, content creation (25%) and information retrieval (16.7%) are less common uses. Such reliance, however, speaks to a narrow approach to the potential of what AI offers in education. Students gave all AI tools positive ratings when asked about their learning impact, with personalized learning experiences rated highest (mean value 4.2). However, engagement was rated lower, with an average of 3.8, indicating a need for more

interactive features. The thematic analysis confirmed this qualitatively, with students highlighting the enhanced learning experience afforded by personal feedback and independent learning. Concerns such as over-reliance on AI, which undermines critical thinking and problem-solving skills, and lack of training and support to use it effectively were also highlighted. A qualitative-quantitative data integration revealed a well-rounded picture, indicating the facilitators (AI tools can enhance academic efficiency) versus the barriers (dependency on AI tools, lack of training). The results indicate that though AI tools present significant advantages to academic work, their potential is still being compromised; thus, higher education institutions may need to implement more advanced workshops and programs focusing on digital literacy, aiming to maximize their use while maintaining critical reflection about academic work.

AI Usage and Awareness
Based on quantitative data, it was found that a considerable share of the students used AI tools on a weekly, if not daily, basis; most of them used AI tools for learning assistance and research support. This corresponds to the study conducted by Kaur and Sharma (2022), in which students reported the growing role of AI in their academic practices, including essay writing and language learning. In this study, a large majority (66.7%) of students predominantly utilized AI tools for academic assistance. This reflects similar findings in the literature, suggesting that AI tools are being adopted as helpful academic assistants.

However, how frequently and intensely students used AI tools differed significantly, suggesting that their relationship with the technology was a more personal matter. This was consistent with Gupta et al. (2023), who found that while students were cognizant of AI technologies like language processing applications, their grasp of what AI could do in more complex ways was limited. The participants of this study reported a similar pattern of using AI tools for basic academic tasks like grammar checking and scheduling. They expressed uncertainty regarding more advanced uses of AI in their learning processes.

They are also a call for awareness and training regarding AI tools, similar to Agarwal and Mishra (2022). They discovered that students' access to advanced resources was limited, and concerns about data privacy prevented them from fully utilizing AI tools. A few students in this study said they would like more guidance in learning how to use AI tools best in their academic work, underscoring the importance of providing tailored support for students to leverage the benefits of such technologies.

Perception of AI in Learning
Attitudes of students toward AI have been an important factor in deciding their adoption and use of AI tools. The quantitative data from the study showed that students had positive attitudes towards the role of AI in improving their academic performance. The statement "AI tools provide personalized learning experiences" had the highest mean score (4.2), showing that students appreciated the ability of AI tools to tailor learning experiences to their individual needs. Joshi and Mehta (2022) corroborated this, showing that artificial intelligence could enhance academic achievement by providing various learning experiences.

By adopting theoretical frameworks like the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT), we can better understand the positive perception of AI in education. According to Patel and Jain (2022), students who felt comfortable with AI tools considered them beneficial to their learning experiences. Similarly, Venkatesh et al. (2003) showed that students' views about the usefulness and ease of use of AI

were key predictors of their intention to adopt these technologies. Students who perceived AI tools as enhancing their academic performance, which cannot be achieved with the effort needed to learn how to use them, were more likely to use them in their studies (Kholodny et al., 2023).

Moreover, self-determination theory (Deci & Ryan, 2000) revealed that students' motivation to employ AI tools depended heavily on their internalization of autonomy and competence. According to Mishra and Saha (2022), students who felt empowered to utilize AI-based tools demonstrated greater intrinsic motivation autonomously. In this study, students utilizing AI at their discretion voluntarily expressed more favourable views regarding these tools.

AI Affects the Results of the Learning Process

This research revolved around the correlation between AI use and perceived learning outcomes. The quantitative data suggested that students believed AI tools could enhance academic performance. This result is consistent with the findings of Ghosh and Kumari (2023), who found that real-time feedback from AI systems could improve students' understanding of concepts and make them aware of the areas to be improved. The research also noted that students valued the personalization of AI's feedback and support, enabling them to be more actively engaged with their learning materials. However, the effects of AI on learning were far from universally positive.

This confirms the findings of Singh and Kumar (2022), who indicated that the previous level of digital literacy could influence and impact students with lower levels who could not benefit from AI tools. Some students struggled to understand the platforms, causing them to become disengaged and frustrated. The lack of personalized support in some AI tools made these challenges worse, as this did not fully address the individual learning needs of some students. This reflection resonates with the report issued by Sharma and Singh (2023), from which the authors emphasized that the insufficient digital literacy of students would reduce the efficacy of AI technologies in the prospect of learning improvement.

Qualitative data obtained through interviews also showed concerns about over-reliance on AI. Some students are worried that over-reliance on AI tools could negatively impact their thinking capacity and problem-solving skills. These concerns echo those in prior, mainly qualitatively-driven studies (Agarwal & Mishra, 2022), which cautioned that students might develop a dependence on AI response generation, thus impeding cognitive development. This theme appeared during the interviews where some students expressed concerns about becoming too reliant on AI for their assignments, which could impact their ability to think freely.

AI Tools Integration and Support Requirements

Student responses indicated that introducing AI tools into the curriculum was beneficial but noted a need for more support and training. Analyses of qualitative data revealed that many students felt unprepared to use AI tools effectively; several expressed the hope that more workshops on AI usage would help them maximize these tools. This resonates with Agarwal and Mishra (2022), who identified a lack of training as a significant hindrance to the widespread adoption of academic AI tools and suggested that the lack of proper training could also give rise to fear and mistrust of AI tools. Students reported that while AI tools were beneficial, they could not utilize their full potential without proper guidance.

The study's results supported the significance of a systematic method for incorporating AI into higher education, together with training for students and teachers. Higher education institutions need to allocate resources to training programs to prepare students to utilize AI technologies (Sharma & Singh, 2023). Such an initiative would significantly improve the quality of education

and guarantee that the students are well-equipped for a future in which AI becomes a more prominent feature within many professions.

Conclusion

The findings of this study underscore that AI has a place in the realm of undergraduate education, offering improvements to our learning experiences, research and experience as professionals. The quantitative data showed that the highest frequency of use was for learning assistance (66.7%) and research (50%), highlighting that most students use AI tools to meet immediate academic needs. However, qualitative insights indicated limited exploration of AI's vast capabilities and concerns about over-reliance on technology and neglecting critical thinking development. Students also liked AI personalization (mean score: 4.2), given the ability of AI to adapt to their learning needs. However, the engagement scores (mean score: 3.8) indicated improvement in making AI interactions more vibrant and engaging.

Thematic analysis additionally demonstrated that although students appreciated the enriched learning experiences offered by AI, they expressed apprehension that reliance on these tools could adversely impact their independent problem-solving abilities. Overly strong barriers were seen as part of a bigger institutional problem with under-training, prompting students to propose workshops to optimize the use of AI tools in their studies. Specific policy suggestions are made based on these well-being findings. Educational institutions must focus on AI literacy programs to prepare students to utilize meaningfully and responsibly. Workshops around advanced use cases like generative, creative content and conversational data extraction can empower students to maximize AI's capabilities. In addition, teachers will be encouraged to use AI to engage in critical thinking and cognitive development in a style that fosters the strengthening of soft skills or transferable skills that will be part of their students' learning. This study provides a classifier stage for the future of AI in education. Institutions can find a medium ground for converging AI's strengths and the essential ones by focusing on areas of concern like overdependence, underutilization, and inferior training.

Recommendations

You need to provide students with more comprehensive training on AI tools. Many people asked for additional workshops and resources to help them use AI tools effectively. Students can utilize AI to its full potential in their scholastic endeavors with structured training programs.

a) You must promote the Use of AI tools within the curriculum. The study proved beneficial for learning assistance and research with AI tools. Integrating AI tools into the curriculum can enhance students' learning experience and academic performance.

b) You need to respond to concerns of overreliance on AI: Some students raised concerns about being too reliant on AI, saying it inhibits their critical thinking. Educators worldwide must continue encouraging responsible and balanced use of AI to complement regular learning and promote independent problem-solving skills.

c) You can offer tailored support to students using AI tools: Since students have disparities in digital literacy, tailored support, such as customized advice or peer mentorship programs, is a great help to students with whom the AI platforms are still unfamiliar.

d) You need to help raise awareness of AI tools beyond them for writing more straightforward stuff: Many students are using AI to perform basic tasks, and no more than this, and they are not even aware of what else could be done. Teaching students how AI can be used enables them to get the most out of it in any academic task.

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