Exploring Awareness and Engagement with Artificial Intelligence among College Students

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ABSTRACT

Artificial Intelligence (AI) is quickly changing many industries, including education, but many college students still not fully aware of the potential in both positive and negative upon engaging with it. This study investigates the awareness and engagement with AI among college students, focusing on how they perceive and utilize AI in their academic routines. The data was collected through interviews to assess students' knowledge, experiences, and attitudes toward AI. The findings reveal varying degrees of AI awareness, with engagement influenced by academic exposure, accessibility, and personal interest. The findings reveal that students acknowledge the usefulness of AI in tasks such as research, writing, and time management. However, concerns were also raised about overdependence, reduced critical thinking, and ethical challenges. Factors like academic exposure, accessibility, and personal motivation were found to influence student engagement. The study emphasizes the need to integrate AI education to promote responsible and informed usage. By understanding how students interact with AI, it will guide students in developing essential skills and maintaining academic integrity in an AI-integrated learning environment.

Keywords: Artificial Intelligence, Awareness, Engagement, College Students, AI

INTRODUCTION

A growing number of industries, including education, are being influenced by artificial intelligence (AI). By facilitating individualized training and simplifying academic support through the use of technologies like chatbots, intelligent tutoring systems, and automated assessments, it has brought about new methods of teaching and learning. Understanding how students use these devices and if they are successfully enhancing learning is crucial as they grow more common in colleges and universities. Even while AI is becoming more and more common in education, it is still unclear how much students know about these tools and how frequently utilize AI. The ability to improve education pin not only on its accessibility but also on students' familiarity, willingness, and capacity for meaningful application.

Research indicates that many students are not sufficiently aware of artificial intelligence's capabilities and educational uses, despite the technology's rapid growth. Jie and Kamrozzaman (2024) emphasized that many students are not sufficiently aware of artificial intelligence's capabilities and educational uses, despite the technology's rapid growth. Without sufficient knowledge, students may overlook the benefits of AI tools, which would result in poor engagement. It's also possible that some students have misconceptions about AI, thinking it's too complicated or only applicable to those in technical subjects like computer science. This highlights the need to assess how students perceive AI and whether awareness translates into meaningful engagement with AI-based learning platforms. Addressing this gap is essential in determining strategies for promoting AI literacy among college students.

Several studies have examined the role of AI in education and its impact on student learning. Hussain (2024)

conducted an international study on AI's role in higher education, emphasizing artificial intelligence plays a significant role in education and improves personalized learning experiences. AI technology is capable of fulfilling the needs of teachers and pupils in the teaching and learning process effectively e.g., tutoring, communication, evaluation, analysis, supervision, etc. It enhances the teaching and learning process by using modern technologies and methodologies. In the local context, Cruz and Rivera (2021) explored Filipino college students' perceptions of AI in education, revealing that while students acknowledge AI's potential, many have limited exposure to AI technologies, resulting in minimal engagement. These studies highlight the necessity of further research on AI awareness and engagement, particularly in developing educational strategies to bridge this gap.

This study aims to assess the awareness and engagement of college students with AI, focusing on how their level of understanding influences their interaction with Artificial Intelligence educational tools. Specifically, it seeks to determine students' familiarity with AI applications in education, evaluate their level of engagement with AI technologies, and analyze the relationship between AI awareness and engagement. By identifying key factors that affect student interaction with AI, this research aims to provide insights into how higher education institutions can improve AI literacy and promote meaningful student engagement with AI-powered learning platforms. The findings of this study will contribute to existing literature on AI adoption in education, offering recommendations for enhancing AI integration in college curricula.

Objectives Of the Study

This study examines the awareness and engagement of the college students with the Artificial Intelligence. It specifically aimed to:

1. Understand students' perceptions towards the integration of artificial intelligence in their academic lives;
2. Identify the perceived benefits of utilizing artificial intelligence in students' academic lives;
3. Examine the perceived disadvantages of artificial intelligence;
4. Explore strategies employed by students in effectively utilizing artificial intelligence tools for academic purposes.;
5. Develop recommendations for the ethical and effective implementation of artificial intelligence in academic life.

MATERIALS AND METHODS

Research Design

Phenomenological approach using descriptive phenomenology research design was employed in this study, to obtain the data on the awareness, benefits and disadvantages of Artificial Intelligence among the college students.

Respondents

The respondents of this study are tertiary students consume and utilize the Artificial Intelligence applications and websites in dealing with their academic lives.

Instrument

A semi-structured interview guide was developed and validated by an expert as primary instrument for the data collection. The interview consisted of open-ended questions that aimed to gather detailed responses from the participants.

Ethical Consideration in the Data Collection

To uphold the quality and credibility of the study and its findings, ethical considerations were carefully observed. A formal consent letter was provided to the participants. Prior to their participation, the students were thoroughly informed about the purpose of the research, the procedures involved, as well as any potential risks and benefits. They were given the opportunity to ask questions and were encouraged to participate only after providing their

voluntary informed consent. It was clearly communicated that participants' involvement was entirely optional, and they could withdraw from the study at any time without facing any consequences. Throughout the research process, participants' identities were kept strictly confidential, with no names disclosed or mentioned at any stage.

Data analysis

The data were collected and organized based on common ideas and recurring themes. This approach allowed the researchers to exhibit meaningful patterns that provided a deeper understanding of the issue. Then the researchers will describe the ideas, strategies and recommendation of the students about the awareness and engagement with Artificial Intelligence.

RESULTS AND DISCUSSION

This section presents the analyses and interpretation of the data obtained from the participants of the study.

On the idea on the use of Artificial Intelligence in academic life

Theme: AI as a Valuable Academic Tool with a Need for Responsible Use

The theme emerges from the responses that highlights how college students perceive the impact of Artificial Intelligence (AI) on the students' academic experience. Students see AI as a powerful tool that boosts their productivity and efficient tasks like research, writing, and summarizing, making academic work more efficient and manageable.

This theme is supported by the following responses from the participants:

> *"AI facilitates research, note organization, and writing, which makes college life easier. Additionally, it helps students manage their time and study, which enables to learn more effectively and complete their assignments on time" (Participant 1)*
>
> *"Using Ai in my Academic Life is very helpful especially when making summarization in our topics that is so many. It's time consuming and productive to have" (Participant 5)*
>
> *"AI in academics is a double-edged sword. Tools like AI can be amazing for research, organization, and even writing, helping summarize complex papers or brainstorm essay ideas. But over-reliance can be detrimental, hindering the development of critical thinking and original thought" (Participant 6)*
>
> *"Artificial Intelligence can enhance my academic life by enabling efficient research, personalized learning, and automated administrative tasks." (Participant 7)*

The use of AI in education brings both exciting opportunities and different challenges. Particularly to the students, this was supported with the study of Alhenaky (2025), states that there is a positive impact of teaching using an artificial intelligence-based program in developing computational thinking skills in the digital skills course of the students. However, relying too heavily on AI might delay the development of critical thinking and original ideas like key skills for independent learning. This highlights the need for educational institutions to play a guiding role in promoting responsible AI use.

According to Al Zaidy (2024), found that while 86% of students use AI for academic tasks, a majority express concerns about over-reliance and ethical usage, highlighting the need for comprehensive AI literacy programs. Similarly, Zhou et al. (2024) identified that excessive dependence on AI can lead to decreased creativity and critical thinking among university students. These findings suggest that while AI can be a powerful educational tool, its benefits are maximized only when used responsibly and with proper guidance.

The incorporation of artificial intelligence into educational settings offers promising opportunities for improving efficiency and delivering individualized instruction. However, its adoption requires deliberate and responsible

application.

On the perceived benefits of using AI in students' academic life

Theme: Academic Support and Productivity

The theme emerges as a central benefit of using AI in academic life and reveals that AI is not just a tool for completing task but also a means to enhance to overall academic experience.

This theme is supported/generated by the following responses:

> *"When I am studying, I use this tool of AI to summarize our topic for tomorrow, and it really manages my time." (Participant 5)*
>
> *"Using AI for academic research can be incredibly beneficial; for instance, an AI could efficiently summarize numerous research papers on a topic like social media's impact on mental health, allowing for focused analysis." (Participant 6)*
>
> *"AI can help me give ideas on how to answer my assignments and also introduces me to new words. Through AI, I explore a lot of learnings and how to formally construct sentences." (Participant 7)*
>
> *"Enhanced learning experience - A student who's having a tough time grasping physics concepts turns to Wolfram Alpha for help. They use it to visualize tricky equations and get detailed, step-by-step solutions. Improved tutoring support - A university student gearing up for an English essay turns to Grammarly and QuillBot to polish their writing." (Participant 8)*

These responses show that students value AI as a tool to help them with their studies. Students use it to understand difficult subjects, and improve even their communication. AI becomes a bigger part of education as students are becoming more independent and resourceful in learning. According to the study of García-Martínez (2023), states that there is a positive impact of AI on student performance, finding a rise in their attitude towards learning and their motivation, especially in the STEM (Science, Technology, Engineering, and Mathematics) areas. It was evident that the students benefited with the use of artificial intelligence in their academic lives.

According to study conducted by Khairuddin, Z et al. (2024), students perceived AI as a tool that could help them in their learning process. This implies that educators need to be more ready in using technology in the classroom and they should equip themselves with 21st century skills that are relevant in today's education system. By integrating technology in teaching and learning processes that may assist the educators and students to be more engaged in the classroom and two-way communication may occur. Despite the multiple benefits provided, the implementation of these technologies in instructional processes involves a great educational and ethical challenge for student that utilized AI.

On the perceived disadvantages of AI

Theme: Overreliance on AI and its Negative Impact on Personal Development

The theme that emerges from the responses is overreliance on AI and its negative impact on personal development. While AI can increase productivity, students said that relying too much on technology could disrupt the development of critical thinking, creativity, and problem-solving abilities.

This theme is supported/generated by the following responses:

> *"Many students rely on AI for tasks, risking reduced critical thinking. While AI boosts efficiency, balancing technology with personal effort is essential for true learning." (Participant 1)*
>
> *"I always rely on AI; for example, in my research/lab report, I always use AI to answer them, and it's not very helpful for me because it makes me lazy to study or understand those reports." (Participant 6)*

"Overreliance on AI can lead to reduced critical thinking, plagiarism risks, misinformation, lack of personalized learning, privacy concerns, and diminished real-world problem-solving skills." (Participant 7)

"Dependence on Technology: Imagine a student who leans completely on AI to get through their assignments. When it comes time to think critically without that digital crutch, they find themselves at a loss. Overreliance on AI Tutoring: Picture a student who can't seem to write without the help of AI-driven grammar checkers and paraphrasing tools. This constant reliance leaves them struggling to express themselves effectively when they have to go it alone." (Participant 8)

These findings highlight a crucial concern that students were relying too much that can hinder the development of essential academic and cognitive skills. These results were supported by the study of Ortiz Jr. (2025), systems and prompts produced by AI may not provide adequate instructional content for higher level of engagement, learning and retention. Students might become less involved in active learning, leading to a shallow understanding and reduced ability to solve complex problems on their own. This overreliance can also ruin confidence and motivation in the students learning.

Recent research supports the shared experiences of students in the disadvantages of AI in the academic lives. A study by Pisica (2024) found that the disadvantages and threats coming from implementing AI, expected results have been received. Students are concerned about the threats of losing critical thinking skill, about privacy and security, about ethical issues, about perspectives on human interactions and the costs generated by AI and between using AI and traditional teaching methods that encourage critical thinking and creativity.

Furthermore, qualitative research by Darwin (2023), supported the students experiences and acknowledge the utility of AI in enhancing various facets of critical thinking, such as academic research, theory scrutiny, and experimental design. Despite this, students also expressed concerns about the limitations of AI. These include issues like lack of personalization, risk of echo chambers, and challenges in nuanced understanding.

On the strategies in using Artificial Intelligence

Theme: The Need to Balance AI Use

The theme of the need to balance AI use emerged as participants described the strategies of using AI in their academic lives. Students shared that while Artificial Intelligence (AI) is helpful, it's important to use it wisely and not depend on it completely. Students are aware of both the benefits and risks of using AI. Student understand that while AI can save time and help them get started on tasks, it's not perfect. Students seem to recognize the need to keep using their own thinking skills and to make sure the information AI provides is correct. This balanced approach can help students avoid becoming over-reliant on AI, which could affect their ability to think critically or solve problems on their own.

This theme is supported/generated by the following:

"Through fact-check and verification to obtain accurate information" (Participant 1)

"I use AI strategically, focusing on tasks where it excels like summarizing information or generating initial drafts, but avoiding those needing creativity or ethical judgment. I always critically evaluate its output, fact-checking and editing to ensure accuracy and originality." (Participant 6)

"Use it as a learning aid and do not rely everything to AI." (Participant 7)

"To make the most of Artificial Intelligence, I take a balanced approach, treating it as a helpful tool rather than a substitute for my own critical thinking. I always double-check any AI-generated content against reliable sources to make sure it's accurate and to steer clear of misinformation" (Participant 8)

The theme underscores the growing awareness among college students about the limitations and potential risks

of AI tools. While students recognize the utility of AI in tasks such as summarization and research assistance, they are cautious about its accuracy and reliability. The study of Arya (2024), suggested that integrating AI into education can revolutionize teaching and learning experiences, fostering personalized, efficient, and innovative approaches. However careful consideration of ethical implications and investment in teacher professional development is essential to harness the full potential of AI in education and ensure an inclusive and equitable learning environment for all students

According to Pillai, S., & Ramakrishnan, R. (2024), balancing and responsible use of AI in education it demands a clear purpose, regulatory compliance, AI literacy among educators and learners, a balanced risk-benefit analysis, academic integrity, and human agency. Continuous evaluation of AI systems can ensure they serve educational goals effectively. The responsible use of AI in education requires a clear purpose, adherence to ethical and regulatory standards, and can help both educators and learners. It is essential to strike a balance between the potential benefits and risks of AI, while conserving academic learning process of students.

On the future users of AI for academic life

Theme: Responsible and Ethical Integration of AI in Academic Life

The theme of responsible and ethical integration of AI in academic life emerged from student responses emphasizing the importance of using AI as a supportive tool rather than a replacement for critical thinking.

This theme is supported/generated by the following responses:

> *"I propose adopting AI as a tool for support, not as a replacement for critical thinking" and "Never be too dependable; we are better than AI."(Participant 1)*
>
> *"Use AI responsibly in your studies! Understand plagiarism rules and your school's AI policies; be transparent about using AI. AI's great for summarizing research, finding patterns, and speeding up literature reviews, but it's not a replacement for your own thinking." (Participant 6)*
>
> *"Double-check any information generated by AI against trustworthy sources to make sure it's accurate and reliable... steer clear of plagiarism and focus on crafting your own original ideas." (Participant 8)*

Participants highlight the importance of utilizing AI as a helpful tool rather than as a replacement of their own thinking, emphasizing the necessity of finding a balance between AI support and critical thinking and active personal involvement. The observations show a careful approach to incorporating AI in ways that improve learning and academic integrity rather than compromise them.

The implications of this theme are significant for higher education institutions. Universities may create explicit rules and regulations governing AI's use as it becomes more commonplace while encouraging students' digital literacy. Instead of using AI to replace intellectual engagement, educators should highlight its potential as an enhancing tool. Institutions should also fund training initiatives to assist students in assessing AI results critically and incorporating them into their educational experiences in an ethical manner.

Recent studies reinforce the importance of ethical integration of AI in education. The 2025 Chegg Global Student Survey found that while 80% of undergraduate students use generative AI tools for academic purposes, trust remains a concern due to inaccuracies in AI-generated content. Students demand education-specific tools and training to navigate these challenges responsibly.

CONCLUSION

The college students view Artificial Intelligence as a practical tool that supports productivity, facilitates learning and aids in academic tasks. Many were aware of risk of overdependence, though, as it can affect the critical thinking and creativity n applying to academe. The study emphasizes the need for balance, with Artificial Intelligence being used to support, not replace, personal effort and learning. It also emphasizes the importance

of incorporating AI literacy in order to teach students the ethical and responsible manner in utilizing AI. Promoting a proper use of AI in education can help students' benefits form its advantages while upholding academic integrity.

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