The Influence of AI Technology on Students' Academic Abilities and Cheating Behavior

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Abstract: The aim of this research is to determine the effect of AI technology on students' academic abilities and cheating behavior. The research method used is systematic reviews from literature sources searched using the Google Scholar search engine. Several questions as research questions in this study are: 1) what is the effect of using AI technology on students' academic abilities?; 2) how is student cheating behavior linked to the use of AI technology? From the results of the literature review, it is known that the use of AI technology can improve students' academic abilities by making it easier to access information. However, there is an increase in the potential for cheating by students with AI technology in the form of students tending to avoid writing assignments because they rely on AI to do their writing assignments. It is recommended that policy makers in the education sector be able to regulate regulations on the use of AI for students to ensure that AI technology is utilized as well as possible without any misuse that leads to cheating or cheating.

Keywords: AI, academic, students

1. INTRODUCTION

The use of AI (Artificial Intelligence) technology has recently continued to increase. The development of AI technology is growing very rapidly in all information media because AI can be created and controlled at will by its creator for the needs of humanity (Putri et al., 2021). The use of AI technology has become a symbol of the progress of civilization because of its ability to make human work easier.

However, the use of AI still has several challenges. One of these challenges is the concern that human dependence on AI technology will reduce the quality of human resources. It is feared that students will become dependent on AI technology in their learning process, thus encouraging cheating. Research by Ali et al., (2023) found that there is potential for student cheating behavior by utilizing AI technology, namely the use of electronic devices, such as gadgets, to obtain information that is not permitted during exams or assignments, such as searching for answers via ChatGPT. If this continues, it is feared that students will lose their integrity values and decline in cognitive abilities due to dependence on AI. Therefore, the aim of this research is to determine the effect of AI technology on students' academic abilities and cheating behavior.

2. LITERATURE REVIEW

AI

Based on rational understanding, AI is a system that functions as an intelligent agent that can sense the surrounding environment to take actions that can maximize the value of an outcome based on a realistic objective function based on data or experience (Russel & Norvig, 2016). In contrast to ordinary computer programs which tend to be more static, AI acts with a certain level of autonomy that develops over time and adapts to changes in its environment (Russell & Norvig, 2016). Based on humanist understanding, AI can be interpreted as a system that exists because of subjective expectations, namely the hope that humans can interact with AI technology to bring about change (Dahlke, 2024). One example of AI technology used by students is ChatGPT (Generative Pre-trained Transformer) which can provide educational support and services for students (Abdillah et al., 2023).

Academic

Academics are processes related to teaching with the aim of producing academic understanding. This process is expected to provide knowledge about educational activities. With the academic process, people are able to give and get knowledge, information and ideas (Pangaribuan & Subakti, 2020; Pratiwi et al., 2020).

Cheating

According to Andres (2023), cheating is behavior that results in an unfair academic advantage for a student or an unfair academic disadvantage for another student, including inappropriately claiming someone else's work as one's own. When related to AI technology, cheating includes the use of AI to create assignments in ways not permitted by the assignment instructions or directions. This instruction is caused by the desire of assignment creators, such as teachers, so that students do not use AI technology beyond reasonable limits in carrying out certain assignments.

3. METHODS

The research method used is systematic reviews from literature sources searched using the Google Scholar search engine. According to Arief & Sugiarti (2022), the systematic review method is carried out by determining research question you want to know the answer to, conducting a literature search, determining inclusion and exclusion criteria for the literature you are looking for, and specifying literature based on the research question you want to answer. The aim of this research is to determine the effect of AI technology on students' academic abilities and cheating behavior. Therefore, here are some questions as research questions in this research, namely:

1. What is the impact of using AI technology on students' academic abilities?

2. How is student cheating behavior linked to the use of AI technology?

The inclusion criteria in this research are literature sources that match the keywords, namely AI, academic, and cheating as well as literature sources published within the last 10 years. The exclusion criteria include literature that does not match the keywords and was not published within the last 10 years.

4. RESULTS & DISCUSSION

The Influence of Using AI Technology on Students' Academic Abilities

Research by Sappaile et al. (2024) shows that there is a positive relationship between the academic abilities of secondary school students and the use of AI technology. Of the 110 students surveyed, the average frequency of use of AI-based learning technology was 3.5 times per week with a standard deviation of 1.2, which indicates a fairly moderate level of use. The average academic score of the students surveyed was 78 which is between the range of 60 to 95 with a standard deviation of 8.5. The research concluded that the higher the frequency of using AI technology in learning, the better the students' academic performance because students who use AI more often tend to have better academic performance.

Viorennita's (2023) research results also show that students' use of AI, such as ChatGPT, has grown rapidly in recent years. AI technology is used in various educational processes or activities, including as a learning assistant, virtual tutor, assignment corrector, and interactive learning assistance. The use of ChatGPT is considered to make it easier for students to improve their academic abilities, which is characterized by AI capabilities that increase student accessibility to learning material, support providing fast and personalized feedback, and provide enthusiasm and motivation for student involvement in the learning process.

Students' Cheating Behavior is Linked to The Use of AI Technology

The findings of Saduk & Chariri (2024) show that there is a trend of AI-based academic cheating behavior among students in the Accounting Study Program at the Faculty of Economics and Business, Artha Wacana Christian University, Kupang due to high campus academic pressure. Fyfe's research (2022) also shows the assumption that with the existence of AI technology, students tend to avoid writing assignments because they rely on AI to do their writing assignments. Oravec (2023) also added that AI has added a new dimension to the challenge of academic cheating because students can easily access sophisticated systems to generate writing assignments from AI that can be presented in assignments, exams, or papers that are claimed as their own work. Nguyen & Goto's (2024) research shows that

although AI makes education more accessible and efficient, there is intentional misuse of AI chatbots because the AI technology facilitates academic cheating. The findings also revealed that when questioned directly, students tended to hide their academic cheating behavior by utilizing AI technology.

5. CONCLUSION

1. The use of AI technology can improve students' academic abilities by making it easier to access information.

2. There is an increase in the potential for cheating by students with AI technology.

6. RECOMENDATION

It is recommended that policy makers in the education sector be able to regulate regulations on the use of AI for students to ensure that AI technology is utilized as well as possible without any misuse that leads to cheating or cheating.

7. LIMITATION

In this research, there are limitations in the form of only assessing the influence of using AI on students' academic abilities and cheating behavior, so further research is needed on other influences that can influence students' academic abilities and cheating behavior.

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