

LECTURERS' PERCEPTIONS OF CHANGES IN MUSLIM STUDENTS' BEHAVIOR AFTER THE USE OF ARTIFICIAL INTELLIGENCE IN LEARNING

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Abstract: This study was motivated by the rapid development of artificial intelligence that has transformed the learning process in higher education. The purpose of this study was to examine lecturers' perceptions of the impact of AI use, particularly on student behavior. Based on a qualitative approach through observation, in-depth interviews, and document analysis, the results of this study found that artificial intelligence has an ambivalent influence. On the one hand, artificial intelligence encourages students to be more independent in accessing information and completing tasks. However, on the other hand, this independence is not always followed by active participation in class discussions, which reduces academic interaction. In addition, concerns have arisen regarding academic ethics, such as plagiarism and low originality of work, as well as excessive dependence on technology that hinders critical thinking skills. In response to this, lecturers feel the need to adjust their roles and teaching strategies to be relevant to the digital era. These findings emphasize the importance of digital literacy and artificial intelligence ethics in higher education, in line with Selwyn and Norman's views on digital learning and technology ethics. Literacy and ethics enable students to use technology wisely.

Keywords: Artificial Intelligence, Student Behavior, Academic Ethics

Abstrak: Penelitian ini dilatarbelakangi oleh perkembangan pesat kecerdasan buatan yang mengubah proses pembelajaran di perguruan tinggi. Tujuan penelitian ini adalah untuk menguji persepsi dosen terhadap dampak penggunaan artificial intelligence, khususnya pada perilaku mahasiswa. Berdasarkan pendekatan kualitatif melalui observasi, wawancara mendalam, dan studi dokumentasi, ditemukan hasil penelitian bahwa artificial intelligence memiliki pengaruh ambivalen. Di satu sisi, artificial intelligence mendorong mahasiswa untuk lebih mandiri dalam mengakses informasi dan menyelesaikan tugas. Namun, di sisi lain, kemandirian ini tidak selalu diikuti dengan partisipasi aktif dalam diskusi kelas, yang menurunkan interaksi akademik. Selain itu, kekhawatiran muncul terkait etika akademik, seperti plagiarisme dan rendahnya orisinalitas karya, serta ketergantungan berlebihan pada teknologi yang menghambat kemampuan berpikir kritis. Menyikapi hal ini, dosen merasa perlu menyesuaikan peran dan strategi pengajarannya agar relevan dengan era digital. Temuan ini menegaskan pentingnya literasi digital dan etika artificial intelligence dalam pendidikan tinggi, sesuai dengan pandangan Selwyn dan Norman terkait pembelajaran digital dan etika teknologi. Literasi dan etika membuat mahasiswa menjadi bijak dalam menggunakannya.

Kata Kunci: Kecerdasan Buatan, Perilaku Mahasiswa, Etika Akademik

INTRODUCTION

The rapid development of digital technology has brought major transformations in various aspects of life, including in the field of education (Hakim, 2022; Sandy et al., 2023). One of the technological innovations that has been widely adopted in the learning process is artificial intelligence (Cathrin & Wikandaru, 2023). The presence of AI makes it easier for students to access information, prepare assignments, and understand material independently. This change marks a significant shift in the way students learn and interact with the education process.

Artificial intelligence includes the study and development of computer programs capable of demonstrating behaviors that are considered intelligent, taking into account that machine intelligence is different from the natural intelligence possessed by humans and animals (Susatyo, 2021). Another definition states that artificial intelligence is an attempt to make computers have the ability to think intelligently (Kalsum, 2022). Although often associated with robotics, artificial intelligence actually covers much more than that, including the human ability to program computers and other technological devices to understand the principles of thinking and acting intelligently. As one of the important inventions in the Fourth Industrial Revolution, artificial intelligence is considered a very influential technology in the current era (Rifky, 2024).

In the context of education, the application of artificial intelligence allows the creation of personalized learning experiences, helps automate administrative tasks, and enables a learning system tailored to the needs of each student. The use of artificial intelligence in learning is considered to increase the efficiency and effectiveness of academic activities. Students have the freedom to learn independently and flexibly, and can quickly get help in understanding complex material (Romah et al., 2023). However, on the other hand, there are concerns about the negative impacts that may arise, such as reduced curiosity, decreased academic ethics, and increased dependence on technology (Ully et al., 2023). This condition provides new challenges for lecturers in assisting and evaluating students in the digital era.

As those who act as facilitators and guides in the learning process, lecturers play an important role in observing and evaluating the changes that occur in students (Azhari & Alaren, 2017). Lecturers' views on the impact of AI use are very important to know, because it can provide an understanding of how this technology affects students' attitudes, motivation, and overall learning behavior. However, to date there is limited research that specifically explores lecturers' perceptions of changes in student behavior due to the use of artificial intelligence in the context of higher education.

Against this background, this study aims to explore lecturers' perceptions of changes in student behavior after using artificial intelligence technology in learning at Universitas PGRI Argopuro Jember. Through a qualitative approach, this was chosen in order to deeply understand the experiences, views, and subjective assessments of lecturers in a real context.

The distinction of this research lies in its focus on examining lecturers' perceptions of changes in student behavior due to the use of artificial intelligence technology in learning in higher education, especially at PGRI Argopuro University Jember. Although research related to AI adoption in education is growing, most studies focus more on the implementation of the technology itself or its impact on students in general, not from the perspective of lecturers who play a direct role in the learning process. This research contributes by addressing the perspective of lecturers as key observers and evaluators, which can provide important insights into the impact of artificial intelligence on learning dynamics, academic ethics, and interactions between students and lecturers.

This research is motivated by the rapid development of digital technology, especially artificial intelligence, which changes the way of learning in higher education. The purpose of this study is to examine lecturers' perceptions of the impact of the use of Artificial Intelligence,

especially on student behavior. Based on a qualitative approach through in-depth interviews, it was found that Artificial Intelligence has an ambivalent influence. On the one hand, Artificial Intelligence encourages students to be more independent in accessing information and completing tasks. However, on the other hand, this independence is not always followed by active participation in class discussions, leading to a decrease in academic interaction. In addition, concerns arise regarding academic ethics, such as plagiarism and low originality of work, as well as over-reliance on technology that inhibits students' critical thinking skills. Lecturers felt the need to adjust their roles and teaching strategies to remain relevant to the digital learning era. The findings confirm the importance of digital literacy and AI ethics in higher education, in line with Selwyn (2016) and Norman's (2018) views on digital learning and technology ethics. This research provides theoretical contributions by enriching the understanding of the impact of Artificial Intelligence on student behavior and practical contributions by providing guidance to lecturers and educational institutions to optimize the use of Artificial Intelligence in learning without compromising students' critical skills and academic ethics.

METHOD

This research uses a qualitative approach with the type of phenomenological study (Moleong, 2020).

This approach was chosen because it is considered the most appropriate to explore in depth the experiences and perceptions of lecturers towards changes in student behavior after the use of artificial intelligence in learning. Phenomenological studies allow researchers to understand the subjective meanings perceived by informants in the context of daily academic activities. This research was conducted at PGRI Argopuro University Jember, with research informants being lecturers who have experience teaching in classes where students use artificial intelligence technology as part of the learning process. The selection of informants was done by purposive sampling with the following criteria: actively teaching in higher education in the last two years, have experience observing students who use artificial intelligence in learning, and are willing to openly express their views and experiences. The number of informants was not determined from the beginning, but was adjusted to the principle of data saturation, that is, when the interview no longer produced new relevant information.

Data collection was conducted through three main techniques, namely semi-structured in-depth interviews, non-participatory observation (where possible), and documentation (Fiantika, 2022; Sugiyono, 2016). Interviews were conducted based on guidelines that had been prepared in accordance with the research focus and recorded with the

informant's consent, then transcribed for analysis. Observation was used to observe student interactions or responses in the learning process, while documentation included lecturer teaching notes and academic policies related to the use of artificial intelligence technology. The collected data were analyzed using thematic analysis techniques, with stages including transcription of interview results, data reduction to identify main themes, categorization of findings based on patterns and meanings, and conclusion drawing (Rijali, 2019; S.Kp & Dwi Anggraeni, 2011). Analysis was conducted inductively to maintain openness to new findings that may emerge during the research process (Darmalaksana, 2020). To maintain data validity, source triangulation, member checking, and audit trail techniques were used. These three strategies are used so that the research results have strong validity, credibility, and can be scientifically accounted for.

RESULTS ND DISCUSSION

Through in-depth interviews with several lecturers from various study programs at Universitas PGRI Argopuro Jember, some important findings were obtained regarding their views on changes in student behavior after the use of artificial intelligence in the learning process.

Shifting Student Learning Styles

The advancement of artificial intelligence technology in the education

sector has revolutionized learning methods among students. One of the most significant contributions of artificial intelligence is its ability to provide learning materials more efficiently.

In the observation of several lecturers at PGRI Argopuro University in Jember, they argue that by meeting students show an increase in independence in learning. The use of artificial intelligence technology such as ChatGPT helps them quickly understand the material, so that student responses in learning change such as rarely asking basic things in learning. That is, they are increasingly focused on the object of the problem in a learning phenomenon in the classroom.

"Students now rarely ask basic questions. Before learning begins in campus classes, it seems they have searched for information on their gadgets or laptops about the discussions that will be discussed in class. Of course, with the help of artificial intelligence, students can understand the discussion that initially seemed difficult to digest in texts or books and journals, into a lighter language and easily understood by students," said one of the lecturers of the Early Childhood Education study program.

However, a number of lecturers at PGRI Argopuro University in Jember also noted a decrease in student participation in class discussions, because they felt that they had already gotten answers from artificial intelligence before the discussion process took place.

"The existence of artificial intelligence in the learning environment, according to my analysis, actually reduces student participation in class discussions, which were previously busy asking each other questions and discussing now somewhat reduced. Most likely, this is biased by the convenience offered by artificial intelligence that allows it to be able to provide faster and instant answers in any discussion or problem."

Through artificial intelligence-based systems, students can access lecture content that suits their needs and level of understanding, so that the learning process becomes more personalized and directed. For illustration,

Furthermore, the economics education lecturer explained that although not always 100% accurate, AI is also able to provide instant feedback, so that students can immediately identify and correct mistakes which ultimately makes learning more efficient. In addition, artificial intelligence also supports online learning systems, opening up more flexible and equitable access to education for students from all over the world.

However, there are notes from various lecturers at PGRI Argopuro University Jember who argue that behind these various benefits, there are several impacts that need to be of concern to students and lecturers related to lifestyles that have an impact on student behavior. One of them is the possibility of a decrease in the ability to think critically and creatively in students and in the

behavioral aspect can make students relieve discussions or discussions in class during the learning process because they feel they can answer all material with the help of robots or technology such as artificial intelligence, even though the benefits of discussion are not only in mastering the material but also as an exercise in conveying opinions or arguments to the general public.

Despite the benefits, it also raises concerns from educators that students may become too reliant on technology to find answers quickly, without really practicing deep thinking and understanding independently.

Decline in Academic Ethics and Originality of Work

The majority of informants from PGRI Argopuro University Jember expressed concern about the decline in academic integrity. Many assignments were indicated to be done with the help of artificial intelligence without personal adjustment or interpretation by students. "Sometimes I immediately know which assignments are made by myself and which ones use artificial intelligence. The language written is too neat and perfect," said the Biology Education lecturer.

Some lecturers have also begun to develop an assessment approach that focuses more on the process, not solely on the final product, as an anticipatory step against the potential for artificial intelligence-based plagiarism. "In anticipating plagiarism, of course, a

lecturer needs to apply a new approach to assessment. That is, not fixated on the results of what students do but rather on the process by which students work in completing tasks. Of course, with various new tools that are appropriate, this is to maintain the quality of students.

In addition, one of the lecturers at PGRI Argopuro University Jember also believes that it is important to teach and maintain the originality of the work so that students are not accustomed to or not only consume instant products that are sometimes irrelevant. This is bad for students because they can become consumptive individuals and cannot process a phenomenon because of the absence of critical thinking power.

Improving the Utilization of Artificial Intelligence among Students

The use of artificial intelligence technology is becoming more widespread among Indonesian students. From writing reports to analyzing data, AI has become a tool that helps them complete various tasks more quickly and effectively. Despite its many benefits, there are concerns that reliance on artificial intelligence may negatively impact students' academic literacy (Dahnial, 2024; Rahmawati, 2021).

Many students use AI to support their academics. Apps such as ChatGPT, Grammarly, and Perplexity are often found to be very useful in completing tasks that require fast processing and engaging delivery of material.

According to one PGRI Argopuro University Jember student, artificial intelligence technology is very helpful, especially when I have to complete a writing assignment with a tight deadline. This tool makes it easier for me to understand the material and organize arguments in a more structured way. Not only in terms of academics, students also use artificial intelligence for creative purposes such as creating presentations and visual designs.

A number of lecturers expressed concern that the convenience offered by artificial intelligence could actually reduce the practice of critical thinking and independent writing in students. "There is a tendency for students to directly copy the results of artificial intelligence without really understanding the content or structure of the text. This can reduce the quality of their literacy skills."

This decline in literacy can be seen in the weakening of students' ability to construct arguments and understand a topic thoroughly. Dependence on technology makes them tend to skip the real learning process, such as reading critically and conducting independent research.

The advent of artificial intelligence has brought about a major transformation in the education system. However, uncontrolled use can pose a serious threat to students' literacy skills. It takes a collective awareness from students, educators and educational institutions to use this technology wisely, so that the

benefits can be felt without sacrificing basic skills that are very important for their future.

In the interview, the lecturer explained that he also saw symptoms of a high dependence on artificial intelligence, which has led to a decline in critical thinking skills. "I am worried that they will be reluctant to think. Everything is directly asked to artificial intelligence. In fact, critical thinking skills are very important in the learning process."

From the explanation above, it can be concluded that in addition to the various benefits obtained in the use of artificial intelligence, there are also negative things that follow in students, especially so that it invites the attention of educators or lecturers to make various kinds of new creations in learning so as not to have a bad impact on student behavior (Panjaitan et al., 2024; Ramawati & Gunatirin, 2024; Sakti et al., 2024).

The Behavior of Muslim Students after the Use of Artificial Intelligence in Learning

The use of artificial intelligence technology in the university environment has had a significant impact on the learning patterns of PGRI Argopuro University Jember students. Based on interviews with a number of teaching staff at PGRI Argopuro University Jember, various new dynamics were identified that showed a shift in the way students think and interact in the academic process.

Changes in student learning patterns are in line with the constructivist approach as proposed by Jean Piaget and Lev Vygotsky, which states that learning is an active process of building knowledge through direct experience (Wardani et al., 2023). In this case, artificial intelligence acts as a tool that allows students to explore the material before the lecture begins. They become more independent in finding information and forming understanding, which is a characteristic of active learners.

However, these changes also have an impact on classroom interactions. Referring to Sociocultural Theory, the process of social discussion and collaboration plays an important role in knowledge development (Plampang, 2010). When students feel that they have gotten enough answers from artificial intelligence, their participation in class discussions will decrease. This narrows the space for the zone of proximal development, which is the distance between what can be achieved alone and with the help of others. Active participation in discussions is an important bridge to achieve more complex understanding, something that artificial intelligence cannot fully provide.

The ease of accessing artificial intelligence has the potential to encourage the practice of plagiarism and reduce originality in the academic work of PGRI Argopuro Jember University students. This phenomenon is in line with Lawrence Kohlberg's view of moral development,

which illustrates that individuals develop from the stage of obedience due to fear of punishment towards morality based on principles (Ibda, 2023). When students use artificial intelligence without ethical consideration, it indicates that they may not have reached a mature level of moral understanding. They treat artificial intelligence not as a thinking tool, but as a way to complete tasks quickly.

Therefore, it is important to foster character and introduce digital ethics education. According to the *Digital Literacy* concept, digital literacy includes more than just technical skills; it also involves a critical understanding of the responsible use of technology (Tinmaz et al., 2022). By improving students' digital literacy, including awareness of academic honesty, educational institutions can reduce this unethical behavior.

Some lecturers respond to this condition by changing the assessment system from focusing on the end result to the learning process, in accordance with the principle of *Assessment for Learning*, which emphasizes that assessment should be part of the learning process (William, 2011). Thus, students are encouraged to evaluate their way of thinking and realize that success lies not only in the results, but also in the process.

Today's students are part of the *Digital Natives* generation, individuals who grew up amidst the advancement of digital technology. They tend to integrate artificial intelligence in their daily academic activities, not only to complete

tasks, but also to support creativity such as presentation creation and data analysis.

However, as the use of AI increases, there is a potential decline in higher-order thinking skills, such as the ability to analyze, evaluate, and create, as emphasized in Bloom's revised Taxonomy. When students rely too much on instant results from artificial intelligence, they become less trained in constructing arguments and understanding a problem in depth.

This view is in line with the warning from the book *The Shallows*, which states that the convenience offered by technology can reduce critical thinking skills and make the learning process superficial (Caldeira, 2010). Therefore, there is a need for teaching methods that can strengthen deep thinking skills along with the use of artificial intelligence.

Teachers' concerns about students' dependence on artificial intelligence are closely related to the concept of *Cognitive Offloading*, which is the tendency to hand over thinking processes to external devices such as artificial intelligence (Risko & Gilbert, 2016). While beneficial for efficiency, overuse of artificial intelligence can reduce the brain's ability to store and process information.

This is contrary to the basic principles of higher education in the Merdeka Belajar-Kampus Merdeka policy, which emphasizes the importance of developing critical thinking, creativity, and independence. If students rely more on instant answers from artificial

intelligence rather than thinking for themselves, then achieving these educational goals becomes difficult.

To overcome this, lecturers need to provide *scaffolding* or gradual support in learning, so that students can process from dependence to independence. This approach can take the form of open-ended case study-based assignments, reflective questioning, or idea synthesis activities. Artificial intelligence can still be used, but its position as an exploration tool must be emphasized, not as the sole source of truth.

CONCLUSION

Based on the results of qualitative research conducted, the use of artificial intelligence in learning has a significant influence on student behavior, both in terms of positive and negative. Lecturers see four main trends: first, there is a change in student learning patterns, with increased independence in finding information and completing assignments, but accompanied by decreased involvement in class discussions. Second, academic ethics has become an important issue because the unwise use of artificial intelligence has the potential to reduce the originality of work and increase the tendency of plagiarism. Third, there is a symptom of student dependence on technology which is feared to hinder the development of critical thinking skills. Fourth, lecturers feel compelled to adjust their roles and teaching strategies to align with the current challenges of digital

learning. These findings confirm the importance of digital literacy and ethics of artificial intelligence in higher education, in line with Selwyn and Norman's views on digital learning and technology ethics. Strong digital literacy and ethics will help students use technology wisely. The implication of this finding is the need for curriculum development that integrates digital literacy and artificial intelligence ethics, as well as training for lecturers in managing technology-based learning so as not to reduce the overall quality of education.

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