

Student Attitudes Toward the use of AI in Muhammadiyah Universities in the Disruptive Era

Surya Damaruka^{1*}, Rendra Widyatama²

^{1,2} Communication Science, Ahmad Dahlan University, 55191, Indonesia

*Corresponding author's email: _surya1900030271@webmail.uad.ac.id

ABSTRACT

Keywords

Artificial Intelligence
Student Attitudes
Disruptive Era

Technological developments in today's digital era such as Artificial Intelligence (AI) or artificial intelligence are becoming a discussion of technology experts. Artificial intelligence is needed in all fields because of its comfort and convenience. This, of course, affects the readiness of students to face the progress provided by AI itself. This article elaborates on the subject by explaining students' attitudes regarding the use of AI in lecture learning. This article aims to understand the extent to which students accept and are ready to use artificial intelligence. This research uses qualitative methods. Data was collected by interviewing eight Ahmad Dahlan University students. The results showed that students have a positive attitude towards artificial intelligence for education. The majority of students view artificial intelligence as a tool that can increase the effectiveness and efficiency of learning and open up wider educational access opportunities. On the other hand, the ease and speed of artificial intelligence in helping students will make students worry about their dependence on artificial intelligence. The use of intelligence technology has a positive effect on students. However, it also found the fact that the use of artificial intelligence brings other influences such as causing dependence which will have an impact on the critical thinking attitudes of students. Therefore, the impact of using artificial intelligence technology cannot be attributed and concluded for good or bad, because once again everything is adjusted to the purpose of using AI technology and how to use it in each student

1. Introduction

Technology has a significant impact on humans. The influence of technology cannot be separated from aspects of human life, especially in education. These developments have made a statement that we are in the fourth place of the industrial revolution. The Industrial Revolution 4.0 is part of technological developments that bring automation to most fields, including Education. According to Roihan, computer science is one of the fields that has the function of technology to be able to think like humans.

Today's artificial intelligence, commonly known as Artificial Intelligence (AI), has brought enormous changes in reality and affected the way people work, learn, and communicate in life. This artificial intelligence leads to the capacity of machines to show their level of intelligence and perform various tasks that require the ability to think like humans. Examples of several levels of intelligence and performing various tasks in college students' lives are such as ChatGPT, Canva, Slides Go, CapCut, Grammarly, Paraphrasing, Google Meet, Zoom, and many more applications that support to help with work with the help of Artificial intelligence (AI).

Today, the emergence of artificial intelligence (AI) technologies Chatbots, and ChatGPT is significantly changing various aspects of human life, including learning and teaching in colleges

(Popenici & Kerr, 2017). The ease experienced by students in various tasks assisted by AI plays a very important role in determining the progress or even the decline of students in optimism. But in reality, students have experienced various changes in the learning and interaction process, due to the influence of technology. Students use AI-powered learning tools to help them learn more efficiently and effectively. These tools can provide a personalized learning experience based on the student's learning style and pace. Students consider AI to be a partner for discussions and looking for references to support their lectures (Iliashenko et al., 2019). The existence of AI technology makes it easier to access educational resources, although artificial intelligence offers opportunities to simplify learning, the tendency to overuse technology can weaken students' ability to develop critical thinking. College students may tend to rely on direct answers that exceed their critical thinking skills. It can also make students lazy, laziness is the main impact of creativity not developing. Therefore, the lack of creativity and critical thinking skills will cause human resources to be hampered and compete with other countries, especially developed countries in the current disruptive era.

The assistance of Artificial Intelligence (AI) in various learning tasks, especially at a very high speed, can affect persistence and optimism, in addition, the ease provided by AI in learning can reduce the level of student resilience because they cannot face more difficult challenges independently. So students must learn to find solutions on their own and not always rely on the help of AI (Lince & Zaidin, 2021). The attitude of students will depend on AI which causes a decrease in the progress of thinking patterns, reduced creativity, and dependence on technology.

Secord and Backman define attitude as a certain regularity associated with a person's feelings (affection), thinking (cognition), and tendency to act (conation) towards certain aspects of the surrounding environment. These three components together regulate individual attitudes and are known as triadic systems, also called tri-component approaches.

According to Jalaludin Rakhmat (2015:39), several things can be inferred from the definition of attitude: First, attitude is a tendency to act, perceive, think, and feel when dealing with objects, ideas, situations, or values. Attitude is not a behavior, but a tendency to act in a certain way according to the object of that attitude. Second, attitude is a driving force or motivation. Third, the attitude is relatively more stable. Fourth, attitudes contain evaluative aspects: they contain pleasant or unpleasant values (likes and dislikes). Fifth, attitudes are experiential, not innate, but learning outcomes. Therefore, attitudes can be strengthened or changed (David et al., 2017). A person's attitude can only be known when he or she behaves. In this case, attitude is one of the determining factors of human behavior, apart from motivation and social normality. Therefore, attitudes are sometimes at odds with behavior. Attitude is an evaluative reaction, meaning that the form of reaction that arises is based on the process of individual evaluation of stimuli in the form of good-bad, positive-negative, and pleasant-unpleasant values. All forms of reactions are then formed as reactions that may occur to the object of attitude.

The disruptive era theory has been introduced by Kumaraswamy (2018). According to him, disruptive means innovation that replaces the old system to produce and form a wider range of new technological and industrial innovations to the demands of the times. Disruptive also means a breakthrough that occurs by replacing the old manual and traditional system with something new digital and virtual (Kasali, 2017).

The phenomenon of education in the era of disruption is a key topic for education stakeholders to understand in the era of disruption, which aims to enable stakeholders are able to manage various educational problems in that era. Lecturers and students need to increase technology awareness in utilizing technology and information so that students can easily understand learning (Adam et al., 2022)

Based on the background that has been given, the author is interested in researching the theme of student attitudes toward the use of AI in Muhammadiyah higher education in the Disruptive era. This study aims to determine the influence of the use of AI on the critical thinking attitude of Muhammadiyah students. The benefits of this research are mainly for students who are expected to be able to face and respond to the increasingly advanced development of AI, use AI in lectures optimally, and not depend on AI, therefore students are expected to utilize AI for better things to support their needs in lectures.

2. Method

The researcher used a qualitative approach. The qualitative approach is research to describe and analyze phenomena, events, beliefs, attitudes, and social activities individually and in groups. The qualitative approach is a collection of methods to analyze and understand more deeply the meaning of several individuals and groups considered as humanitarian problems or social problems. In this study, the researcher used the interview method as a data collection method for the research. The researcher prepared several questions for the speakers. The results of interviews from all sources were analyzed to obtain answers to the researcher's questions. Interviews are a very decisive communication process in the research process. With interviews, the data obtained will be more in-depth, because it can explore thoughts or opinions in detail. This in-depth interview aims to obtain constructions about people, events, activities of educational institutions, feelings of motivation, and recognition. The informant population was obtained from students of all departments at Ahmad Dahlan University Yogyakarta taken several samples and students of all semesters on campus.

3. Result and Discussion

3.1. Result

Based on the results of interviews with eight Muhammadiyah University students regarding Student Attitudes toward the Use of AI in Muhammadiyah Universities in the Disruptive Era, students know and understand what AI is like, they say AI is artificial intelligence or technology to facilitate and petrify person's work, such as finding answers, references and other tools. The types of AI that are often used by students are ChatGPT, Google Scholar, CapCut, Canva, Adobe Illustrator, Corel, and Bing AI. Students often use AI to answer lecturers' questions and assignments, some do not use AI completely, and some sometimes do not use it very often. AI helps make work easier such as looking for references, unknown things and even developing the mind, that's why students need AI technology in lectures. The positive impact that students feel from using AI is to facilitate the learning process, find unknown material, ask about assignments using AI, and make it easier to get a lot of information and references quickly, for example making PPTs, posters, etc. While the negative impact of AI itself makes students dependent because of the perceived convenience, sometimes the material or answers provided by AI are not correct and valid, it is easy to get the answer, and it makes students immediately copy it which makes them lazy. Students felt they were more comfortable using AI in class than not using it, many students agree with that because many are already dependent on AI, students become confused about finding references if they don't use AI, if they use AI it immediately displays what we want, and there is one student who disagrees, and the other is still fifty-fifty/half-half.

The convenience and speed of using AI tools in students make students lazy, many students agree with that, because the simplicity of AI can provide specific information quickly, relying on one source/source on AI will affect students' interest in reading and critical thinking because it means not working alone, working with the help of AI, Such a thing seems lazy. 2 students disagree because they depend on themselves because according to him, it helps with AI to find references, answers, but how do we also have to think after getting that. AI spoils us so that it makes us lazy, laziness affects strong critical thinking skills in students, and more students agree with that, When using AI, the answers given are not understood and learned, even not developed by students, because students are already fixated on the help provided by AI, therefore the existence of AI makes students think faster to complete their tasks instead of thinking hard to complete them his duties.

This makes students unaccustomed to critical thinking, not thinking for themselves and thinking logically. Developed in today's era, critical thinking is important for students because as students we need to develop the soft skills we have, train our skills by being able to do a job without assistance, also to express or develop the ideas and ideas we have, have a broad perspective if we think critically, and as a basis for making a decision. The biggest or most difficult challenge in building critical thinking in students facing the use of AI in lectures is their own will, when students have found answers from AI, it makes students lazy to think for themselves and develop the answers again because they are AI-oriented, and lack of optimal understand of the material and choosing the answers given by AI, often copy-paste directly from the AI. First of all, it starts with intention, then using AI as a

learning aid, not solely as a tool to complete tasks quickly, using AI we must also understand the answers given by AI and read them again, after that we must develop the answers and not overdo it in using AI itself, Here are steps you can be taken to foster critical thinking in lectures encouraged by AI . to achieve a balance between dependence on AI critical thinking for students, students answer back to the students themselves, it is very possible to achieve that balance if students want to think critically because both must be balanced.

Of course, it can be balanced as long as we process it correctly because in lectures we do not only use one of them, so using AI we also have to redeveloped by critical thinking by the student. Should we limit of AI in lectures, the answers from students are balanced, some say it should, some say it shouldn't, students say there must be a limit because the reason is so that there is no dependence and excess, while those who say it doesn't have to be the reason is that we have to explore it, make more use of it, because what should be limited is the way students use and are oriented towards AI. How to respond to the use of AI to be useful in honing critical thinking skills. students answer using AI as an informative tool, used when needed such as honing skills, looking for reading materials, looking for journal references, and then not immediately trusting the answers and information provided by AI to be read again to find out the truth and intention that AI gives us, Then paraphrase the sentence structure as well where we can also think.

Entering a disruptive era like today, the rapid development of AI has brought progress in various fields, which must be prepared for the world of Education to face the current development of AI. Students answered that what needs to be prepared is to first prepare the system and Human Resources, as well as provide seminars about AI to students, let students explore, and also provide support to students, but still limit AI itself, there needs to be education, review and provide certain limits in the use of AI. So that it can make students, become individuals who can think more critically, no fixated on AI alone. What about the role of educators or lecturers at UAD in supporting the use of AI as a learning medium, whether they have supported it or not, all the students answered that they were supportive, one student said that some of his lecturers were also paperless so they didn't use much paper, everything was online and almost all of them also used AI, and some said that learning was also based on using AI. There's no denying the role of AI in making our work easier, but the lecturer also suggested it as a guide only, don't just copy and paste.

3.2. Discussion

AI or Artificial Intelligence has different meanings for each person. However, everyone agrees AI will have a huge impact on human work, helping us get things done quickly and easily. Every student at UAD Yogyakarta needs their educational process, Today's students use AI to facilitate these needs. The presence of various types of AI helps students in the learning process. Students use AI-powered learning tools to help them learn more precisely and effectively. These tools can provide a personalized learning experience based on the student's learning style and pace. Because of this, AI can help relieve students when they have difficulty finding references and unknown things and can add broad insights. According to (Putri et al., 2023) The development of AI has also changed many aspects of human life, including the world of Education. AI can help students face learning challenges, achieve academic success, and facilitate more effective and personalized learning.

Based on the results of the interview, it shows that the majority of respondents know and understand what AI is like. This is a sign that most students have a strong understanding of artificial intelligence. This certainly makes students in general more prepared to face technological changes in the future. Students are more easily adaptable to AI-based learning tools and can utilize them in the learning process. Most of the students use ChatGPT. ChatGPT in the current era of industrial revolution 5.0 will certainly increasingly help people in various circles. ChatGPT (Generative Pre-Training Transformer) commonly called AI (Artificial Intelligence) is an artificial intelligence that uses a chat format, where people can usually ask questions to tools such as artificial intelligence which will automatically receive answers in a short time. Technologies such as ChatGPT have become a highly reliable partner to help students formulate ideas and improve their writing skills (Suharmawan, 2023).

The presence of artificial intelligence technology has a good impact on students, the majority of students are Generation Z where they understand more and are familiar with technology. For example, to increase productivity and help students' access to various appropriate learning materials, AI can

grow the quality and accessibility of education, allowing students to learn more personally and effectively. Researchers found that students' understanding and performance of assignments improved thanks to the support of artificial intelligence systems.

In the interview results, the respondents expressed their views on the positive effects of using artificial intelligence on learning. Most college students see AI as a useful tool in enhancing their learning experience. One of the main benefits obtained is the ease of accessing information in large quantities and quickly. Artificial Intelligence allows students to quickly access various journals from many sources that are relevant to their wants and needs,

The thing that is the focus of the negative impact of the use of AI in learning is the problem related to the lack of critical thinking in students. Because students are already comfortable with the use of AI in the academic process, this is what makes students dependent on AI, if they do not use AI, students will feel confused about finding sources, and references and ask where to go, because students are fixated on the ease and speed that AI provides. It is difficult to control the use of AI to improve students' critical thinking.

In the results of the interview, the respondents conveyed that the negative impact felt if they use AI in lecture learning is that they become dependent on AI, and dependence has an impact on student laziness. Because of the frequency and ease felt when using AI, it is easy to get answers and copy them directly without them thinking. This will certainly have an impact on critical thinking in students.

Students demonstrated involvement in the use of AI to aid academic processes, such as searching journals and creating papers and materials that they did not understand. The speed and ease of using it make students need AI. It should be noted, that behind the many benefits offered by AI, it is detected that there is an influence on critical thinking skills in students. This, of course, must be avoided, because thinking is very important for students by having critical thinking skills, we can develop the soft skills we have, train ourselves to get used to doing things on our own, be problem solvers, and as basis for making a decision (Manurung et al., 2023).

In the interview results, the respondents responded to the use of AI as an informative tool in finding reading materials, honing skills, and looking for journal references. The habit of students when they have found the results and answers from AI they are immediately fixated on it without knowing the truth meant by AI with the will we want, students only think faster to complete their tasks without developing themselves by participating in critical and logical thinking. But we also have to find out the truth of the material that has been obtained earlier by re-reading, then students can find out whether the intention that AI gives us is the same as what we want. We also have to think after using AI.

Students need to be helped to think critically about the lecture material and the problems they face. Thinking skills are very important skills for students. With this ability, students can find the best way to solve problems in various sciences or theories studied, both intrapersonally and interpersonally. Improving and developing critical thinking cannot be just an explanation, but requires a lot of practice and practicing these skills. Therefore, students must try to analyze the problems that exist around them and find solutions (Anggraeni, 2020).

In the results of the interview, the respondents conveyed. First, start from the purpose of what AI is used for, then use AI as an information tool to be used when needed such as looking for journal references and looking for reading materials. Then don't immediately believe the answers, references, and information provided by AI. It is re-read to find out the truth and intention that AI gives us, then reformulate the sentence structure so that we can also think without just relying on AI. If we often practice this without realizing it, we have limited the use of AI in our lives to support and facilitate our work.

4. Conclusion

The presence of technology helps humans to facilitate daily activities effectively. Technological advancements have brought many changes. For example, in the field of education. The presence of Artificial Intelligence technology has had a great influence in the field of education. On the one hand, combining Artificial Intelligence with natural human intelligence will create maximum potential in each individual, achieve greater achievements, and expand students' knowledge in independent

learning. According to student respondents, Artificial Intelligence is technology to help and facilitates a person's work, such as finding answers, references, and other tools. Artificial Intelligence aims to help humans work in a human-like frame of mind based on human commands, and one of the biggest advantages of using Artificial Intelligence is the ability to provide specific information quickly. On the other hand, there is a very dangerous impact on the use of Artificial Intelligence in education. This can be seen in students who now tend to choose to shorten their work with the help provided by Artificial Intelligence in doing assignments, therefore Artificial Intelligence makes students think faster to complete their tasks instead of thinking hard coupled with the help of Artificial Intelligence technology to complete their tasks. Responding to this, UAD students who were respondents said that to overcome dependence on Artificial Intelligence and foster a critical thinking attitude, it can be overcome with the following steps, start with the intention of what Artificial Intelligence is used for, focusing on the use of Artificial Intelligence as an informative learning tool, used when needed such as honing skills, not solely as a tool to complete tasks quickly, use Artificial Intelligence wisely, don't be too easy to receive the information and references given, we must understand what we need with what Artificial Intelligence gives us, need to be read and understood again, after that we must develop the information so that we can think for ourselves, and not overdo it in using Artificial Intelligence itself.

5. Acknowledgement

The researcher expressed his highest gratitude to Allah SWT. which has provided smoothness for researchers in conducting this research. We also thank the relevant parties, especially the informants, who have given space to researchers to analyze the data and provide responses related to the questions we gave. Thank you to Mr. Rendra as the author's supervisor in completing this research. Thank you also to the Communication Study Program for supporting this research. The researcher did not forget to thank himself for completing this study.

6. References

- Adam, E., Lailatussaadah, L., Madya, W. A., Diklat, B., & Aceh, K. (2022). The Roles Of Educator In Disruptive Era: A Literature Review. *Jurnal Pendidikan Teknologi Informasi*, 6(1), 52–64.
- Anggraeni, L. (2020). Penerapan Metode Studi Kasus Dalam Upaya Meningkatkan Kemampuan Berpikir Kritis Mahasiswa Pada Mata Kuliah Hubungan Internasional. *Media Komunikasi FIS*, 11(1), 1–15.
- David, E. R. (Eribka), Sondakh, M. (Mariam), & Harilama, S. (Stefi). (2017). Pengaruh Konten Vlog Dalam Youtube Terhadap Pembentukan Sikap Mahasiswa Ilmu Komunikasi Fakultas Ilmu Sosial Dan Politik Universitas Sam Ratulangi. *Acta Diurna*, 6(1), 93363.
- Iliashenko, O., Bikkulova, Z., & Dubgorn, A. (2019). Opportunities and challenges of artificial intelligence in healthcare. *E3S Web of Conferences*, 110.
- Lince, R., & Zaidin, M. A. (2021). Persepsi Mahasiswa Terhadap Daya Tahan Kuliah Di Universitas Terbuka. *Jurnal Studi Guru Dan Pembelajaran*, 4(3), 692–706.
- Manurung, A. S., Fahrurrozi, F., Utomo, E., & Gumelar, G. (2023). Implementasi Berpikir Kritis dalam Upaya Mengembangkan Kemampuan Berpikir Kreatif Mahasiswa. *Jurnal Papeda: Jurnal Publikasi Pendidikan Dasar*, 5(2), 120–132.
- Popenici, S. A. D., & Kerr, S. (2017). Exploring the impact of artificial intelligence on teaching and learning in higher education. *Research and Practice in Technology Enhanced Learning*, 12(1).
- Putri, V. A., Carissa, K., Sotyawardani, A., & Rafael, R. A. (2023). Peran Artificial Intelligence dalam Proses Pembelajaran Mahasiswa di Universitas Negeri Surabaya. *Prosiding Seminar Nasional*, 615–630.
- Suharmawan, W. (2023). Pemanfaatan Chat GPT Dalam Dunia Pendidikan. *Education Journal : Journal Educational Research and Development*, 7(2), 158–166.