Implementation of AI in the Lecture Process of Social Sciences Education Students at IAI Tazkia

Muhammad Fuad Hanan[1], Rona Afifah[2], and Yuda Saputra Ramadhan[3]

[1]Social Sciences Education, IAI Tazkia, Jl.Ir.H. Djuanda No.78 Sentul City, Citaringgul, Indonesia. (Email: 2110308010.fuad@student.tazkia.ac.id)

[2]Social Sciences Education, IAI Tazkia, Jl.Ir.H. Djuanda No.78 Sentul City, Citaringgul, Indonesia. (Email: 2110308003.rona@student.tazkia.ac.id)

[3]Social Sciences Education, IAI Tazkia, Jl.Ir.H. Djuanda No.78 Sentul City, Citaringgul, Indonesia. (Email: 2110308019.Yuda@student.tazkia.ac.id)

A B S T R A C T	A R T I C L E I N F O
Artificial intelligence (AI) has been developing rapidly lately, including in the field of education. AI has made most human jobs easier, and Social Science Education students at IAI Tazkia are no exception. This research seeks to explore how students implement AI in their lecture process. We used a descriptive qualitative research method in conducting this research. The research data was collected through interviews with students enrolled in the Social Science Education programme. The questions asked related to students' experiences, frequency of use, and underlying reasons for using AI, as well as expectations, satisfaction, and impact of using the technology. In addition, privacy and ethical aspects were also discussed. This article presents findings related to students' experiences in using AI, both positive and negative, in completing coursework. Students stated that AI accelerated access to information, facilitated understanding of concepts, and helped with assignment completion. While some students found it helpful, there were also feelings of scepticism regarding the accuracy and impact of AI use on literacy and active engagement. We suggest a thoughtful approach to integrating AI technology, involving educational training, ensuring equitable accessibility, and increasing faculty engagement to support students' holistic learning. The results show that most students have used AI in carrying out their coursework, so the wider application of AI needs to be well implemented, especially in the realm of education.	

INTRODUCTION

Artificial Intelligence (AI) is a term to describe machines or computer programmes that simulate human-like thought processes to execute specific tasks, either as robots or integrated in computing applications such as internet search engines and facial recognition technology on social media. Currently, AI tends to be narrow in nature, only capable of performing single or focused tasks such as facial recognition technology. In education, AI is still in its early stages of development, which requires educators to understand the knowledge base to teach and integrate AI effectively, thus empowering students to succeed in an AI-driven world. Teachers' understanding of the economic and social implications, educational potential, and ethical considerations of AI is crucial for learning about and with AI. In addition, there is an urgent need

for the development of ethical, legal, and governance frameworks to ensure positive utilisation of AI and establish transparent processes for accountability at multiple levels, from the classroom to the school community and the entire education system (Southgate et al., 2019).

The existence of artificial intelligence (AI) in this world raises various views on its utilisation, including in the field of education. On the one hand, the integration of artificial intelligence with natural human intelligence unlocks the maximum potential in each individual, increases achievement, and expands access to information for students in the context of independent learning. Artificial intelligence aims to assist human work by using human-like thinking and reasoning frameworks, based on human commands. One of the main advantages in the application of artificial intelligence is its ability to make efficient, fast, and accurate decisions based on existing data (Arly et al., 2023).

AI has been widely used in the academic world, especially AI language models that are able to analyse various languages. In addition to analysis, this technology can make modifications and developments from the data provided by its users. Therefore, many academics use technology to help complete their tasks, including lecturers and students in their lectures.

One form of artificial intelligence utilisation in the context of lectures is through the use of artificial intelligence-based adaptive learning systems. By utilising artificial intelligence, the learning system can analyse and understand the individual needs of students. Artificial intelligence is able to personally assess the level of understanding, learning style, and learning preferences of each student (Putri et al., 2023).

Lecturers can utilise artificial intelligence systems to automate the grading of assignments, exams, and student work. This will not only save lecturers' time, but also ensure more consistent and accurate grading. AI systems can be used to collect, analyse and understand complex college data. Lecturers can use it to monitor student progress, identify patterns of learning behaviour, and evaluate the effectiveness of teaching methods. All these uses of technology help in designing more effective lecture strategies (Munandar et al., 2023).

Students at the Department of Social Studies Education, IAI Tazkia also use this technology to help them with their work. AI becomes a very helpful assistant for assignments, understanding new information and knowledge, even to the preparation of academic articles.

LITERATURE REVIEW

Pokrivcakova (2019) explains that "Artificial intelligence (AI)-based writing assistants (based on natural language processing and machine learning) help users through various steps in the writing process (fulfilled writing). Using AI systems, they correct grammatical errors in the written text (through continuous error analysis), give recommendations for further improvement, and provide additional resources for further study. In the foreign language classroom, these systems help learners go through the writing process independently, correct themselves, and think about the process itself. Using AI in this way facilitates self-regulation and learner autonomy."

Some language model AI is of the chatbot type, which is a group of computer programs intended to simulate intelligent human language interaction. A human user and a computer (robot) engage in informal chat (in written or spoken form) using natural language (Pokrivcakova, 2019). Chatbots can be used as a tool for learning and practising languages. There are many advantages of having a chatbot as a conversation partner when learning a language, for example it can allow students to practise their language skills at any time, don't mind repeating the same material several times, can combine text and speech which might help students with their reading, writing and listening skills. (Roos S & Lochan R, 2018)

This is the language model of artificial intelligence that is often used by students. The conversation model and easy-to-understand language are the main attractions. Besides being useful for finding information, chatbots can also be interactive discussion partners.

It cannot be denied that the convenience and efficiency offered by this technology affects the lecture and learning process of students. Therefore, the question arises how the implementation of artificial intelligence in the lecture process of social studies education students at IAI Tazkia. In addition, the benefits and challenges that arise as a result of the implementation of AI in this context are also worth examining. Likewise, privacy and ethical aspects are important to discuss together.

RESEARCH METHODOLOGY

In this study, we used qualitative research methods, which are methods used to investigate natural object conditions. In this method, the researcher acts as the main instrument, data collection techniques are carried out through triangulation (combining various data sources), data analysis is inductive / qualitative, and the focus of qualitative research results is more on understanding meaning than generalisation (Nurdin & Sri Hartati, 2019).

Research data were collected by conducting interviews with students enrolled in the Tadris IPS study program. The questions asked related to the experience, intensity, and underlying reasons for students' use of AI, as well as the expectations, satisfaction, and effects of using the technology, as well as the privacy and ethical aspects that accompany it.

In addition to conducting interviews, we also collected data by conducting a literature study. This literature study was conducted by collecting previous studies, comparing them, and summarising them. That way, we can get more complete relevant data about this research.

RESULT AND DISCUSSION

Artificial intelligence has various definitions. It generally relates to a computer system that is tasked with performing a specific job. AI uses the enhanced capabilities of programs and software, such as algorithm-based machine learning, which gives machines the ability to perform

various tasks that require intelligence and the ability to adapt to the surrounding environment (Chen et al., 2020).

The use of AI in IAI Tazkia's Social Studies Education lectures provides positive and negative experiences for students and female students in doing coursework. The positive experience of using AI in lectures is to find ideas or images of lecture material or in preparing presentation assignments. Students who use AI feel that the existence of this AI helps in doing coursework. The assistance provided by AI is to speed up getting information, which before the existence of AI to compile an assignment had to search on search pages such as google, microsoft edge, or firefox and then sort out the results of the search and have to summarise the discussion obtained, with this AI students feel facilitated and shorten the time in doing assignments. This presence increases curiosity and curiosity for some students because with AI we can have conversations and discussions so that it adds insight.

Most students feel that the positive experience gained from using this AI is that it helps them understand terms and words that are not understood or difficult to understand. Furthermore, students also feel facilitated by being helped to paraphrase an assignment so that they can avoid plagiarism. Some students feel helped by the presence of AI because they can do the assignment faster when the assignment is close to the deadline.

Although some students feel that the presence of AI provides a positive experience for them, on the other hand, there are also negative experiences that they feel. Not all existing AI can be accessed freely because to enjoy all features requires a premium account and must pay or subscribe. Then for the use of AI chatbots such as ChatGPT does not provide results or inaccurate answers where the credibility of the information cannot be proven. Some of the information provided by AI is also not based on the latest information, which provides information from sources that are more than two decades old.

The presence of artificial intelligence with the aim of making it easier also has a negative impact on students. Students who use AI feel helped by the presence of this AI, but it makes them lazy to look for other references so that they reduce their interest in reading so that literacy decreases. A small proportion of students are also less wise in using this AI because the main task is to help not do the entire assignment given by the lecturer to students, a small proportion of these students when getting answers or results from AI immediately enter into the writing of the assignment without doing a review. This makes students lack analytical and critical thinking skills.

Most students of the IAI Tazkia Social Studies Education Department have used artificial intelligence to help with coursework during lectures. However, from the research conducted, there are some students who do not use artificial intelligence in lectures. This student does not deny that artificial intelligence is part of the development of technology in the era of globalisation so he is not against the presence of AI, but in his view the use of AI in lectures makes students pragmatic or want everything to happen instantly so that they do not get important lessons from the process of finding information independently. The second student who also does not use AI

during lectures has the reason that he does not really know about this AI and does not want to find out either, because for him as long as he can search and do it himself he does not need AI assistance to do his coursework. Furthermore, the opinion of female students who do not use AI is because they feel less interested in using it in lectures and the main reason is that they have a fear that using AI will reduce their analytical and critical thinking skills, thus making their self-development less optimal.

The students who use AI are also divided into various categories. The first category is students who often use AI and the use is more general or almost in all courses, not depending on one particular course. The second category is students who often use it in almost all courses. The next category is quite often when they feel stuck and need references or ideas. The last category was rarely used but on several occasions had tried to use AI.

Some students do not use AI when they already have good knowledge in a course. The use of AI is also rarely used in courses related to maths or courses related to calculations such as fikih mawarits. Vice versa, students use AI a lot in courses related to theories to facilitate their understanding and also in history courses that require a lot of reading references.

The reasons for the students found by researchers so that they decided to use AI certainly have diversity and are not the same as one another. The most common reason is because the presence of AI today is to facilitate human work, so there is nothing wrong if students use AI as a tool to facilitate and help complete tasks in lectures. Most students feel that there is nothing wrong with using AI in lectures or helping with assignments given by lecturers, as long as AI does not completely take away our main task of doing the assignment. In this view, students feel that AI is only an assistant, where students still need to understand and look for other sources to strengthen the answers or results given by AI. So, AI only helps students get the main idea, overview, and details of the material being searched related to the task at hand.

Using AI is quite flexible, fast so that in doing assignments there is no need to read many articles, journals or books. So this makes it very easy for students, especially if the assignment deadline is close, using AI is the right solution to be used as an option. Not only in working on assignments in the form of papers, papers or essays, students use AI to help make PPt or to fill in presentation materials. However, students who use it like that say that they will still read from other sources to increase their understanding, so that when presenting they can convey it well.

Not only that, there are some students who use AI to add insight and find out unknown information. The results provided by AI are considered quite detailed, relevant, easy to understand and efficient in time, students do not need to open a book but just ask AI. In addition, AI also helps to paraphrase assignments and provide easy-to-understand examples for difficult terms. Another reason is that as a generation Z that grows and develops with technology, it must be able to support technological developments.

The development of AI raises various reactions from its users, including among Tadris IPS students. They tried and tested the use of AI in the lecture process. In the experiments and tests, students revealed that some were satisfied with AI, but some were not satisfied with the

technology.

The majority of students were satisfied with AI technology. This satisfaction arises because the answers given by AI to students' questions are appropriate and relevant. In addition, AI is very helpful in completing tasks owned by students. This finding is in line with what was revealed by Qodarullah et al (2023) that AI can be used to determine areas where students may have difficulty, and provide recommendations for adjusting materials or teaching strategies to overcome these problems.

However, there were some students who criticised AI regarding the answers she gave. There was disappointment from students who initially felt that the answer AI gave was quite promising. However, after being checked again by the student, it turned out that the information provided by AI had many errors and inconsistencies. This caused the credibility of the answer given by AI to decrease. Some students also think that the answers given by AI cannot be fully accounted for. Therefore, there is a need to recheck AI's answers.

In addition to the many students who felt that AI had met their expectations, there were students who felt that progress was less significant. It's fantastic appearance did make many people interested. This has resulted in a decrease in students' interest in AI.

AI has had a diverse impact on students' learning and engagement in the classroom. There are students who use AI as an idea generator. This is very helpful in starting a task. In addition, discussions with AI, especially chatbots, create a dimension of curiosity in students so that they are encouraged to find out more about the information provided. This is because the answers provided by AI can stimulate new questions.

Some students revealed that AI has increased their participation in class. With AI, students can search for a topic instantly. From the search results, they can get answers that can be used as material for discussion in class.

However, there are also students who feel that AI does not significantly affect their participation in class. Not all topics in lectures can be solved with AI. In Fiqh Mawarits (Inheritance Science) for example. It cannot necessarily be solved with AI because there are many variables that must be understood in depth in order to solve the problem.

Language model AI such as ChatGPT, BingAI, Quilbot, etc., which are often used by students provide answers in a language that is easy to understand. Easy language is one of the factors that can improve student understanding.

There are many journals with complicated language. In addition, language differences are also sometimes a problem for students. With the help of AI, the problem of complexity and language differences in difficult journals can be understood more easily.

It is not only a positive effect, some students argue that there is a risk behind the convenience it offers. The convenience and efficiency provided by AI can actually make students lazy, less literate, and reduce the intensity of interaction between lecturers and students.

We found different effects on students. Some with AI increase their curiosity, while others with AI increase their laziness. Some with AI read more, some with AI read less. Thus, we

conclude that the effect of AI differs based on each student's personality.

Despite the many benefits, some students have concerns about privacy and ethics. They revealed that there were concerns about personal data being used to log into AI service provider websites. There were also concerns about leaking AI chats to third parties.

The students developed certain strategies to overcome these problems. Some deliberately set up special accounts to test AI websites. By using a secondary account, students felt secure about their privacy as it did not store any real personal information. Others minimise communication with AI to avoid the risk of data leakage.

Sharma (2019) highlighted several critical issues related to artificial intelligence in education that need to be addressed. First, control mechanisms are needed to ensure transparency in the collection, use, and dissemination of AI data. Second, there is a need to proactively develop codes of conduct and standards so that the benefits of AI in education can be obtained without harming humans or other entities. Third, it is important to ensure the privacy of learners and protect them from potential harm. Furthermore, awareness about AI needs to be raised so that individuals can protect themselves and take a critical stance when necessary. Finally, it is necessary to go beyond conceptual studies on AI in education and evaluate its success through quantitative, qualitative, or mixed approaches. This emphasises the need for concrete actions and thorough evaluation to optimise the positive impact of AI in the educational context.

CONCLUSION

The use of artificial intelligence (AI) in Tadris IPS IAI Tazkia lectures provides diverse experiences for students. Positively, the use of AI accelerates access to information, helps understanding of terms, and shortens time in doing assignments. Students find it helpful in finding ideas, designing presentations, and paraphrasing assignments to avoid plagiarism. However, there were also negative experiences that included limited access to premium AI features and inaccurate answers from AI chat boxes such as ChatGPT.

The importance of a thoughtful approach to AI use is reflected in the finding that some students tend to over-rely on AI, read less, and engage less in analytical and critical thinking skills. While many students found it helpful, some also felt there was no need to use AI if they already had sufficient knowledge in a course.

The variation in the use of AI, both in frequency and in specific courses, shows the complexity of students' behavioural patterns towards this technology. There are students who see AI as a flexible and quick tool, while others prefer to search for information independently.

In addition, the impact of AI on class participation also varied. Some students felt encouraged to search for more information, increase participation, and initiate discussions thanks to the interaction with AI. However, there were also those who felt that AI was not significant in some complex courses, such as Fiqh Mawarits.

To increase the use of artificial intelligence (AI) in Tadris IPS IAI Tazkia courses, it is necessary to conduct intensive training and education for students and lecturers. This education should include optimal utilisation of AI, validation of AI answers, and emphasis on the ethical

use of this technology. It is also important to encourage the use of AI as a learning tool, not a substitute, by motivating students to keep developing analytical and critical thinking skills. Accessibility of AI needs to be guaranteed so that all students can access this technology without financial constraints. Regular evaluation and updating of AI algorithms should be done to improve the accuracy of answers. In addition, strategies should be devised to stimulate students' reading interest and active engagement, maintain data privacy, and actively involvelecturers in AI curriculum development. Continuous monitoring of the impact of AI use and evaluation of effectiveness should be implemented to ensure this technology makes a positive contribution to learning.

REFERENCES

Arly, A., Dwi, N., & Andini, R. (2023). Implementasi Penggunaan Artificial Intelligence Dalam Proses Pembelajaran Mahasiswa Ilmu Komunikasi di Kelas A. Prosiding Seminar Nasional, 362–374.

L. Chen, P. Chen and Z. Lin, "Artificial Intelligence in Education: A Review," in IEEE Access, vol. 8, pp. 75264-75278, 2020, doi: 10.1109/ACCESS.2020.2988510.

Munandar, H., Ade Kurnia Harahap, M., Haryanto, H., & Lisma Lestari, V. (2023). Pemanfaatan Teknologi Artificial Intelligences (AI) Bagi Dosen Dalam Menghadapi Tantangan Perguruan Tinggi Pada Era Disrupsi. INNOVATIVE: Journal Of Social Science Research, 3, 10566–10576. https://jinnovative.org/index.php/Innovative/article/view/6138/4310

Nurdin, I., & Dra Sri Hartati, Ms. (2019). METODOLOGI PENELITIAN SOSIAL (S. H. Lutfiah, Ed.). Penerbit Media Sahabat Cendekia.

Pokrivcakova, S. (2019). Preparing teachers for the application of AI-powered technologies in foreign language education. Journal of Language and Cultural Education, 7(3), 135–153. https://doi.org/10.2478/jolace-2019-0025

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.

Qodratulloh, W., Suhartini, I., & Rahman, R. (2023). Penggunaan Artificial Intelligent dalam Perkuliahan PAI pada PTU: Analisis Peluangdan Tantangan. Jurnal Keislaman, 4, 146–154. https://doi.org/10.24036/kwkib.v4i2

Roos, S., & Lochan, R. (2018). CHATBOTS IN EDUCATION A passing trend or a valuable pedagogical tool?

Sharma, R. C., Kawachi, P., & Bozkurt, A. (2019). The Landscape of Artificial Intelligence in Open, Online and Distance Education: Promises and concerns. Asian Journal of Distance Education, 14(2), 1-2. Retrieved from https://www.asianjde.com/ojs/index.php/AsianJDE/article/view/432

Southgate, E., Blackmore, K., Pieschl, S., Grimes, S., McGuire, J. & Smithers, K. (2018). Artificial intelligence and emerging technologies (virtual, augmented and mixed reality) in schools: A research report. Newcastle: University of Newcastle, Australia