

## THE INFLUENCE OF ADVANCEMENTS IN AI CHAT GPT TECHNOLOGY IN STUDENTS' LEARNING PROCESS

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### Abstract

One technology that has garnered significant attention recently is Chat GPT, an AI technology that is widely popular and much discussed. The use of ChatGPT AI technology in the student learning process has shown significant positive impacts in improving the quality of learning, stimulating learning interest, and enhancing student engagement. Chat GPT technology enables students to interact in real-time with the system, facilitating adaptive learning tailored to individual needs. Additionally, the implementation of Chat GPT also assists teachers in providing quick and personalized responses to student queries, thereby enhancing teaching efficiency. Other positive impacts include the enhancement of students' critical thinking skills and creativity, expanded access to learning resources, better guidance from educators, as well as the improvement of students' independence and digital skills. With the advancement of Chat GPT AI technology, the student learning process can be enhanced holistically, preparing them to tackle educational challenges in the digital era. This research aims to explore the influence of Chat GPT AI technology advancement in the student learning process. The research method employed is literature review. The findings indicate that the use of Chat GPT in the student learning process has a significant positive impact on improving the quality of learning, stimulating learning interest, and enhancing student engagement.

**Keywords:** GPT Chat, Technology Advancement, Student Learning.

### 1. Introduction

Technological development, including GPT Chat, has brought many benefits in various aspects of human life. In the field of education, technology has opened access to information and knowledge that is broader and more easily accessible, so that it can help improve the quality of education and equal access to education. Apart from that, technology also helps in developing more innovative and effective learning methods and strategies. The use of Artificial Intelligence (AI) technology in the student learning process has become a major concern in recent years. One example of AI technology is very popular and has great potential in improving the quality of education is Chat GPT. Chat GPT is an AI platform that can communicate with humans naturally, allowing users to interact with AI like talking to a teacher (Hutabarat, 2020).

In an educational context, the use of Chat GPT can help increase learning effectiveness by providing access to information and material that is broader and easier to understand. GPT chat also has some challenges and risks, such as data security and usage ethics issues. Therefore, efforts need to be made to ensure the safe and ethical use of technology in all fields, including education. One of the advantages of Chat GPT is its ability to produce text that is very similar to human language. With a large model size, Chat GPT can learn many language patterns and contexts so that it can produce text that is more structured and more accurate (Ahmadi et al., 2017).

In the world of education, Chat GPT plays an important role in supporting students in various aspects, from helping them find information, completing assignments, to understanding complex concepts. Since the last few years, Chat GPT's role in the learning process has become a major focus. However, the impact of advances in AI technology such as Chat GPT on learning is still a relevant topic and needs to be explored further. This article will discuss how developments



in AI technology such as Chat GPT affect student learning. We will explain the ways in which Chat GPT can improve the quality of education by helping students and also how this technology can change the overall learning process. In doing so, we will gain a better understanding of how Chat GPT can be an important part of improving the quality of education in the future (Mambu et al., 2023).

Digital learning is a process that utilizes advances in digital technology to improve students' literacy, thinking skills and abilities. This involves the use of digital- based reference materials that support learning activities. The aim of this research is to evaluate GPT Chat as a digital learning resource for students (Kusworo et al., 2024).

Research related to this study has been conducted by several researchers. Irfan Arifdarma, S.SOS, MM, in his study titled "The Influence of Chat GPT Technology on the Education World: Potentials and Challenges," found that Chat GPT has the ability to understand and generate natural language, thus can be used to build effective and efficient chatbots or learning systems.

Adi Setiawan, Ulfah Khairiyah Luthfiyani, in their study titled "The Use of Chat GPT for Education in the Education 4.0 Era: Proposal for Innovation to Enhance Writing Skills," found that Chat GPT technology can open opportunities to utilize AI in education in Indonesia, particularly in developing the competencies of learners needed in the 21st century. (Hastuti, Aristin and Fani, 2022).

Research related to this research apart from the above, namely Muhammad Jafar Maulana, Cecep Darmawan, Rahmat with the title "Use of Chatgpt in Education Based on an Academic Ethics Perspective" from the results of this research states that the potential for using AI is very significant in the academic realm, AI can make things easier the work of pupils and students in writing or completing assignments quickly and effectively. In recent decades AI has been utilized in a variety of educational environments, including schools, higher education institutions, and online learning platforms. Using ChatGPT and AI can save time in creating assignments, written work and papers, but using ChatGPT is very open to plagiarism and students become uncreative and lazy to think. This research study intends to identify the use of ChatGPT in the review of digital ethics and academic ethics of students.

The use of AI technology in education has become a major concern in recent years. One example of AI technology that is very popular and has great potential in improving the quality of education is ChatGPT. ChatGPT is an AI platform that can communicate with humans directly natural, allowing users to interact with AI like talking to a teacher.

The aim of this research is to find out how advances in AI Chat GPT technology can influence the student learning process. We want to know how Chat GPT can help students improve the quality of education, as well as how this technology can influence the student learning process. The benefit of this research is that it is hoped that it can contribute to the development of AI ChatGPT technology, as well as improving the quality of education in the future. Thus, this research can help improve the quality of education in Indonesia.

## 2. Method

The method applied in this research is a literature review. Literature review is a process of searching and research through reading and analyzing various sources such as journals, books and related publications to produce writing that focuses on a particular topic or issue (Marzali, 2016).

The data collection method applied is documentation method that combines information from various literature sources into one document used to address research questions

(Sabarrudin & Masril, 2023). Data are obtained by conducting similar literature searches through Google Scholar, while the data analysis technique used is content analysis.

### 3. Results and Discussion

GPT is an abbreviation for Generative Pre-training Transformer, which literally means a transformer that has been trained generatively. Chat GPT is software that allows users to interact using natural and easy-to-understand language in conversations. Research shows that the use of Chat GPT is currently in great demand to help complete student assignments. ChatGPT is a deep learning model developed by OpenAI in 2018, designed as a generative model to generate text according to the context of the conversation.

Chat GPT is a conversational language model capable of responding to complex questions, acknowledging mistakes, questioning incorrect premises, and rejecting inappropriate requests. In its usage, ChatGPT is designed to respond like a human. It is a type of natural language model based on artificial intelligence, trained with large datasets to understand and generate text in human language.

One of the key features of Chat GPT is its capability to assist in social media tasks, making it a valuable tool for marketers, businesses, and individuals. One advantage of using Chat GPT for social media is its ability to understand natural language input. This enables marketers to convey specific questions or requests for social media content in a manner similar to interacting with humans, without the need for specific keywords or phrases. This makes the content creation process more intuitive and user-friendly for many people.

#### 3.1. Advantages of GPT Chat

One of the additional advantages of ChatGPT in the social media space is its capacity to provide context-appropriate information, rather than simply presenting a list of links or pre-existing content. ChatGPT is able to understand the essence of the question being asked and provide information that is directly relevant to the content being prepared for a post or campaign on social media. This can optimize marketers' time efficiency by providing the information they need more quickly and precisely. Apart from that, ChatGPT has various other functions which include answering questions from various exams, completing homework assignments, assisting in drafting academic essays, and even creating contracts automatically (Zhai, 2022).

In the current academic realm, it is feared that the use of ChatGPT among students could violate student academic ethics, because it interferes with students' creativity and critical reasoning. The potential impact of using ChatGPT is quite greater than expected. To overcome this problem, students must understand the potential and threats of using ChatGPT in the academic realm and must pay attention to academic ethics that must be adhered to, must not be violated.

This data was obtained from various articles which stated that students' perceptions responded positively to the convenience provided by the GPT chat feature. Preparing written work which requires a long time in the process of thinking and creating from finding a framework for thinking to conclusions makes many students anxious. This is why many students are happy with the convenience that chat GPT provides in becoming a friend for writing writing. However, there are still many students who do not care about ethics in writing. Many just copy and paste assignments without going through a proper data analysis and processing process. This behavior causes many ethical violations in students' writing.

### **3.2. The influence of GPT Chat on students**

The impact of GPT chat on future education is enormous as the technology proves itself to be an effective tool in improving students' language skills, social and mental well-being. Apart from that, GPT chat can also be used in adaptive learning systems to provide direct feedback to students which can increase student engagement and confidence in learning. In the future, GPT chat technology can continue to be developed and used in various aspects of education, such as helping students understand difficult things in learning. The influence of ChatGPT on students can be studied from several points of view. A professor of philosophy at Northern Michigan University, USA has a different view (Sukendro et al., 2024)

The professor, Antony Aumann, is of the view that the pace of development of tools such as ChatGPT is very fast. Even if there is a text detection tool created by an AI chatbot, it still cannot keep up with the speed of development of applications like ChatGPT. He himself once caught a student red-handed who was suspected of submitting a writing written by ChatGPT on the topic of banning the burqa, because his writing was very structured and very coherent. But he only asked him to rewrite his assignment. Using GPT Chat in education offers benefits such as personalized learning, accessibility and affordability, interactive learning resources, and assignment and solving assistance problem. However, there are also limitations to using GPT Chat, such as limited understanding, inability to replace creative work, answers that are not always accurate, inability to differentiate between fact and opinion, and the need for a stable internet connection. Although Chat GPT can be used in research activities for instant data retrieval, summaries, and several other research tasks, its use can also reduce the essence of the manual research process (Setiawan, 2023).

First, from an educational perspective, interaction with ChatGPT can open access to extensive information and knowledge, allowing students to learn about various topics and concepts. This can help increase their understanding of the world around them and broaden their horizons beyond what is taught in class. In addition, ChatGPT can act as an interactive learning aid. Students can use Chat GPT to get additional explanations about course material, ask for advice on completing assignments, or even for writing practice. In this case, Chat GPT can help improve students' academic skills by providing additional support and answers to their questions.

GPT Chat is an application that is still being developed by Open AI to become more optimal and safe for use in human civilization. But this cannot be denied because the sophistication of GPT Chat can have an impact on changing work roles. GPT chat works optimally without emotional feelings and the costs incurred by entrepreneurs will not be too much compared to the costs of paying employees salaries, unlike humans, the quality of work is influenced by the environment as well as expensive costs and limited time capabilities. With advanced technology such as Chat GPT which is always being updated to be more optimal, companies will definitely choose Chat GPT to replace jobs. This is a human challenge in the Society 5.0 era, technology is a factor in the loss of jobs in the future.

GPT chats do not have wise reasoning like humans (Mbakwe et al., 2023). This means that Chat GPT can sometimes be wrong in conveying or answering questions submitted through the use of Chat GPT. Using ChatGPT positively in the world of education can provide a great learning experience personalized and interactive for students and students in learning (Jumriah et al., 2024). Furthermore, with rapid technological advances, GPT Chat services are becoming more and more perfect. It is therefore important to carefully consider the ethical challenges of using GPT Chat. AI or artificial intelligence technology will continue to develop rapidly and its application in education is expected to grow in the near future.

AI technology has great potential in the world of education, OpenAI and ChatGPT can be utilized optimally in improving learning experiences and interactive learning methods (Zhang & Aslan, 2021) If used well and wisely, ChatGPT can be a fun tool, used by students in



interactive learning, for example using ChatGPT to test students' understanding of learning material by providing responses to questions given.

Using the Chat GPT tool can violate plagiarism or copying other people's written work. Therefore, researchers have formulated several strategies to avoid plagiarism violations in writing essay assignments or scientific papers as follows: First, compiling activities for creating essay assignments or scientific papers, by showing the progress of the work on the assignment. Second, using Google Document software to submit assignments via Google Drive. so that you can see the progress of each creation, Third, use specific writing techniques following standard rules or regulations used in preparing scientific papers, Fourth, ask the student to explain, discuss and criticize their writing.

#### 4. Conclusion

In conclusion, technology development, including the development of Chat GPT, has brought various significant benefits in various aspects of human life. In the context of education, technology has opened wider and easier access to information and knowledge, improved the quality of education, and equalized access to education. In addition, technology has helped in developing more innovative and effective learning methods and strategies.

The use of AI technology, such as Chat GPT, in the student learning process has become a major focus in recent years. GPT chat allows for more personalized interactions and helps in various aspects of learning, from providing additional information to assisting in completing assignments.

However, the use of GPT Chat also raises various challenges and risks, such as data security issues and ethics of use. From the results of the literature review, it appears that the use of GPT Chat has the advantage of producing text that is similar to human language and providing responses that are appropriate to the context of the conversation. However, there are also challenges associated with using GPT Chat, such as the risk of plagiarism and the inability to replace human creativity.

Overall, the use of GPT Chat in education can help increase learning effectiveness and provide a more personalized and interactive learning experience for students. However, there needs to be serious attention to issues of data security, ethics of use, and the risk of plagiarism in implementing this technology in an educational context. By taking into account the challenges and advantages of Chat GPT, education in the future can make optimal use of this technology to improve the quality of learning and student experience.

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