

The Impact of ChatGPT Usage on Students Digital Communication

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ABSTRACT

This study aims to investigate the effect of ChatGPT usage on students' digital communication competence. Despite the increasing adoption of ChatGPT in higher education, empirical studies examining its influence on students' digital communication competence remain limited. A quantitative survey approach was employed involving eighth-semester students at STIAB Jinarakkhita Lampung. Data were collected using a Likert-scale questionnaire and analyzed through descriptive statistics and simple linear regression using SPSS. Digital communication competence was measured through students' ability to access, evaluate, and communicate information effectively and ethically in digital environments. The findings reveal that ChatGPT usage has a positive and significant influence on students' digital communication competence. Students who use ChatGPT more effectively tend to demonstrate better abilities in information processing, digital message construction, and ethical digital communication. This study concludes that ChatGPT can serve as a valuable educational tool for strengthening students' digital communication competence when integrated responsibly into higher education. The findings contribute to the growing literature on AI-assisted learning and provide practical implications for the effective integration of generative AI in higher education.



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Introduction

The development of information and communication technology in the digital era has transformed various aspects of human life, including in the field of education. Technological advancements not only facilitate access to information but also introduce various innovations that support the learning and communication processes (Almufarreh & Arshad, 2023). One of the rapidly developing innovations today is Artificial Intelligence (AI) or artificial intelligence, which is capable of helping humans complete various activities more effectively and efficiently. The world today is greatly influenced by technology in daily life, especially in education, where technological advancements are rapidly producing new innovations in education (Syahri et al., 2024).

One form of AI technology that is widely used today is ChatGPT. This service was developed by a major company from the United States called OpenAI (Manurung et al., 2021). ChatGPT is an artificial intelligence-based platform capable of generating text automatically based on commands given by users (Roumeliotis & Tselikas, 2023). In the world of higher education, ChatGPT is starting to be utilized by students to search for information, compile academic assignments, create presentations, translate texts, and even assist in the preparation of scientific works (Tarchi et al., 2025). This convenience has led to an increase in the use of ChatGPT among students. On the other hand, students are required to have adequate digital communication competencies. Digital communication competence is the individual's ability to access, understand, evaluate, produce, and convey information thru digital media effectively and ethically. This competence has become one of the essential skills that students must possess in facing the development of technology and the increasingly complex flow of information.

In the context of higher education, digitalization is no longer just an administrative tool; it has reshaped the entire ecosystem of learning, communication, and social relations on campus (Seno et al., 2025). The use of ChatGPT can contribute to the improvement of students' digital communication. However, the use of AI technology also poses various challenges, such as dependence on technology and low information verification skills. Various previous studies have examined the use of ChatGPT in the context of education and learning. However, research specifically investigating the impact of ChatGPT usage on students' digital communication is still relatively limited. Therefore, this research is important to provide an overview of the relationship between the use of ChatGPT and students' digital communication.

Based on the description, this study aims to determine the impact of using ChatGPT on the Digital Communication of Semester VIII Students at STIAB Jinarakkhita Lampung. The novelty of this research lies in the integration of the concept of using ChatGPT-based Artificial Intelligence with the Digital Communication of Students in the context of Buddhist higher religious education. Unlike previous research, which generally focused on academic aspects and learning effectiveness, this study examines how the intensity of ChatGPT usage affects students' digital communication skills, including information literacy, digital message composition, information evaluation, and digital communication ethics. Thus, this research provides a theoretical contribution to the development of digital communication studies as well as a practical contribution to the use of AI technology in higher education.

ChatGPT Usage

The use of ChatGPT is an activity that utilizes artificial intelligence (AI) technology based on natural language processing (NLP) to assist users in obtaining information, completing tasks, and supporting digital communication processes. ChatGPT is developed to be able to understand questions or commands given by users and generate relevant responses in an easily understandable language. ChatGPT's capacity to learn from a vast volume of data and generate highly relevant and accurate answers to various questions is one of its main features (Sugiarto & Suhono, 2023).

The presence of ChatGPT and other Gen-AI is seen as one of the important commodities that can be used to quickly search for various information with various algorithms that support the information search process for its users (Niyu et al., 2024). ChatGPT is a language model developed by OpenAI designed to interact with humans thru text-based

conversations. This technology is capable of answering questions, explaining certain concepts, assisting in writing, translating languages, and providing recommendations based on user instructions. These capabilities make ChatGPT one of the important innovations in the development of digital communication technology.

In the context of education, the use of ChatGPT can assist students in finding references, understanding lecture materials, composing academic assignments, and developing ideas in the learning process. Thru quick access to various information, students can obtain instant assistance without having to wait for direct guidance from lecturers or other learning resources. This makes ChatGPT a practical and efficient learning support tool. The currently functioning AI includes the following types: Expert Systems, designed to simulate human problem-solving behavior, and Machine Learning, which is "the ability of a computer to automatically improve its methods and enhance its results as it acquires more data" (Zein et al., 2023).

The use of ChatGPT is also related to how individuals interact with digital technology in their daily lives. Users can utilize ChatGPT for various needs, ranging from academic activities, work, professional communication, to personal needs. Beside being a source of information, ChatGPT can function as an interactive communication medium that allows for two-way information exchange. Users can ask follow-up questions, request more detailed explanations, or change the context of the discussion as needed. It can be concluded that chatGPT works by gathering various information from journals, articles, and newspapers that have been published on the internet, then chatGPT absorbs all of it so that when someone or a user searches for information on a topic they want to know, chatGPT will summarize the answer based on the information it has collected in a short time (Suharmawan, 2023).

The effective use of ChatGPT does not only depend on the sophistication of the technology but also on the user's ability to provide clear instructions or questions. The more specific the question asked, the more relevant the answer produced. Therefore, the ability to formulate questions and evaluate information becomes an important factor in maximizing the benefits of using ChatGPT. ChatGPT has proven capable of translating between languages with a high level of accuracy and generating coherent and informative summaries of long documents (Wahid et al., 2023).

On the other hand, the use of ChatGPT needs to be done wisely and responsibly. The information provided by ChatGPT should still be verified thru credible sources, especially for academic and research purposes. Users also need to understand that artificial intelligence technology has limitations, so not all information generated can be used as a primary reference without further verification. Although ChatGPT has the ability to process information from text input, this can reduce the originality of the work, making it tend to be less creative (Salmi & Setiyanti, 2023).

Based on the description, the use of ChatGPT can be interpreted as the process of utilizing conversational-based artificial intelligence technology to help users obtain information, complete tasks, and enhance the effectiveness of digital communication. In the field of education, the use of ChatGPT has the potential to support the learning process and improve students' abilities to access, process, and convey information more quickly and efficiently.

Students' Digital Communication

Digital Communication for Students is the ability of students to use digital technology to communicate effectively, ethically, and responsibly in various academic and social contexts. This competence includes the ability to access, understand, process, and convey information thru various digital platforms such as social media, instant messaging applications, online discussion forums, and digital learning platforms. The trend of digital communication is indeed becoming an increasingly significant focus due to the continuous changes occurring in the digital world (Adzani & Irwansyah, 2023).

The digital era has fundamentally changed the landscape of communication, bringing significant changes in the way society interacts, shares information, and forms opinions. The rapid development of information and communication technology has given rise to various social media platforms that have now become an integral part of the daily lives of the global community. This phenomenon not only changes interpersonal communication patterns but also has a wide-ranging impact on social, political, and cultural dynamics (Suhendra & Pratiwi, 2024). The development of information and communication technology has changed the way individuals interact, exchange information, and build relationships. Therefore, students are required to adapt to an increasingly technology-based communication environment and utilize digital media productively.

Digital communication competence is not only related to technical skills in operating digital devices and applications, but also includes the ability to understand messages, interpret information, and convey ideas clearly and effectively to others. Students who possess good digital communication competence are able to choose communication media that align with the communication goals they wish to achieve. Digital communication skills are the ability to communicate based on Information and Communication Technology (ICT) as a means to express oneself, build relationships, and interact with others (Badri, 2022).

In addition, digital communication competence also involves digital literacy skills, which is the ability to search, evaluate, and use information obtained from the internet critically. Students need to be able to distinguish between valid and trustworthy information and information that is hoaxes or misleading. This ability is very important considering the rapid flow of information circulating in the digital space today. Digitalization has transformed and transfigured media and communication technology (Batoebara et al., 2021).

In an academic environment, digital communication competence helps students in following the learning process, discussing with lecturers and peers, preparing assignments, and presenting research results thru various digital media. Good digital communication skills can enhance the effectiveness of learning and expand students' access to various sources of knowledge. Digital communication can accelerate social change in ways that were previously difficult to achieve (Mahsin et al., 2023). Digital communication competence also includes aspects of communication ethics. Students are expected to use polite language, respect others' opinions, maintain privacy, and adhere to the norms and rules applicable in digital communication. An ethical attitude in communication is an important factor in creating healthy and constructive interactions in the digital space.

Furthermore, digital communication competence is related to the ability to collaborate and participate in digital communities. Students who possess good digital communication

competence are able to work together online, contribute to virtual discussions, and build professional networks thru various digital platforms. This ability becomes an important asset in facing an increasingly digitalized work environment.

Based on the description, Digital Communication for Students can be defined as a set of knowledge, skills, and attitudes that enable students to communicate effectively, critically, ethically, and responsibly thru digital media. This competence becomes one of the essential skills that support students' success in academic activities, social life, and preparation to face challenges in the digital era.

Method

This research uses a quantitative approach with a survey method. The quantitative approach was chosen because the study aims to measure and analyze the impact of ChatGPT usage on Students' Digital Communication objectively thru statistical data processing. The survey method is used to obtain direct data from respondents thru the distribution of questionnaires that have been prepared based on the indicators of each research variable.

The population in this study consists of all eighth-semester students of STIAB Jinarakkhita Lampung, totaling 42 students. Considering the relatively small population size, this study uses the saturated sampling technique, where the entire population is made the research sample (Sugiyono, 2019). Thus, the number of samples used in this study was 42 respondents. Research data were collected using questionnaires distributed both directly and thru digital media. The questionnaire was constructed using a five-point Likert scale, namely Strongly Disagree (SD), Disagree (D), Neutral (N), Agree (A), and Strongly Agree (SA). The research instrument consists of two variables, namely the use of ChatGPT as the independent variable (X) and Student Digital Communication as the dependent variable (Y).

The independent variable (X) in this study is the use of ChatGPT, specifically the level of ChatGPT utilization by students in academic activities and digital communication. The indicators used include frequency of use, ease of use, usefulness of use, and intensity of use in academic activities. The dependent variable (Y) is students' digital communication, which refers to students' ability to access, evaluate, manage, and convey information thru digital media effectively and ethically. The indicators used include the ability to search for digital information, evaluate information, compose digital messages, and apply digital communication ethics.

The data obtained were analyzed using the Statistical Package for Social Sciences (SPSS) program. The stages of data analysis include validity tests to determine the accuracy of the research instrument, reliability tests to measure the consistency of the instrument, normality tests to determine the data distribution, and simple linear regression analysis to examine the effect of ChatGPT usage on students' digital communication. Hypothesis testing is conducted thru a t-test (partial) with a significance level of 0.05. Additionally, the coefficient of determination (R square) is used to determine the extent of the contribution of the ChatGPT usage variable to students' digital communication.

Findings

Normality Test

The normality test aims to examine whether the variables in the regression have a normal distribution or not. The normality test in this research uses SPSS 16.0 with the One Sample Kolmogorov Smirnov test with the following hypotheses:

Ha: Data is normally distributed

H0: Data is not normally distributed

If $\text{sig} > 0.05$, then Ha is accepted, meaning the data is normally distributed. If $\text{sig} < 0.05$, then Ha is rejected, meaning the data is not normally distributed.

Table 1. Test of Normalitas

One-Sample Kolmogorov-Smirnov Test			
		X	Y
N		80	80
Normal Parameters ^a	Mean	98.61	104.02
Most Extreme Differences	Std. Deviation	12.157	12.992
	Absolute	.078	.065
	Positive	.058	.065
	Negative	-.078	-.043
Kolmogorov-Smirnov Z		.696	.578
Asymp. Sig. (2-tailed)		.717	.892

a. Test distribution is Normal.

Source: Processed by the Author Using SPSS 16.0

Based on the table above, the results of the normality test conducted on 42 respondents, which include the variable (X) ChatGPT Usage and (Y) Student Digital Communication. The significance value (2-tailed) for the ChatGPT Usage variable is 0.717, which means $0.717 > 0.05$, indicating that the data is normally distributed. Meanwhile, the significance value (2-tailed) for the Student Digital Communication variable is 0.892, which means $0.892 > 0.05$, indicating that the data is normally distributed.

Test of Homogeneity

The homogeneity test is a method to determine whether several population variances are the same or not. The homogeneity test is conducted as a requirement in the independent sample test analysis using the Compare Mean One Way ANOVA method. The testing criterion is that if it is more than 0.05 or 5%, it can be said that the variance of the two data groups is the same. Here is the homogeneity test table.

Table 2. Test of Homogeneity

Test of Homogeneity of Variances				
	Levene Statistic	df1	df2	Sig.
X	.998	1	78	.321
Y	.782	1	78	.379

Source: Processed by the Author Using SPSS 16.0



The results of the homogeneity test are seen from the output of the homogeneity variance test, with a significance value for ChatGPT Usage of 0.321, which means $0.321 > 0.05$, so the ChatGPT Usage data is homogeneous. Meanwhile, the significance value for Student Digital Communication is 0.379, which means $0.379 > 0.05$, so the Student Digital Communication data is homogeneous. Since the significance values are greater than 0.05, it can be said that both data sets are homogeneous.

Simple Linear Regression Analysis

From the Model Summary output, it is known that the percentage of influence of the independent variable (X) on the dependent variable (Y), referred to as the coefficient of determination (R square), is 0.468, which means that the influence of the independent variable on the dependent variable is 46.8%, while the remaining 51.3% is influenced by other factors outside the study

Table 1 3. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.698 ^a	.487	.468	6.007

a. Predictors: (Constant), X

b. Dependent Variable Y

Source: Processed by the Author Using SPSS 16.0

Discussion

Based on the results of the normality test using the Kolmogorov-Smirnov method, the significance values for the ChatGPT Usage variable is 0.717 and the Student Digital Communication variable is 0.892. Both values are greater than 0.05, indicating that the research data is normally distributed. These results indicate that the data obtained from the respondents have met one of the basic assumptions in parametric statistical analysis, specifically simple linear regression analysis. With the fulfillment of the normality assumption, the analysis results can provide more accurate estimates and can be used to test the relationship between ChatGPT Usage and Students' Digital Communication.

Next, the results of the homogeneity test show a significance value of 0.321 for the ChatGPT Usage variable and 0.379 for the Student Digital Communication variable. Both values are greater than 0.05, so it can be concluded that the data have homogeneous variance. Data homogeneity indicates that the characteristics of data distribution between groups are relatively the same, making the data suitable for further analysis using simple linear regression. Thus, both the normality and homogeneity assumptions have been met, allowing the analysis model used in this study to be applied appropriately.

The results of the simple linear regression analysis show a correlation coefficient (R) value of 0.698, indicating a strong influence between the use of ChatGPT and students' digital communication. This correlation value indicates that the higher the level of ChatGPT usage by students, the higher their digital communication competence tends to be. This strong relationship indicates that the use of artificial intelligence-based technology like ChatGPT can be one of the factors supporting the improvement of students' communication skills in the digital environment.



Additionally, the adjusted R-squared value of 0.468 indicates that the use of ChatGPT can explain 46.8% of the variation in students' digital communication. This means that almost half of the changes in Student Digital Communication are influenced by the use of ChatGPT, while the remaining 53.2% are influenced by other factors not examined in this study, such as digital literacy, the intensity of social media use, technology usage experience, critical thinking skills, learning motivation, and academic environment factors. These findings indicate that ChatGPT has a significant contribution in supporting the development of students' digital communication, although it is not the only factor influencing it.

Theoretically, the results of this research reinforce the view that the use of Artificial Intelligence (AI) technology can assist students in accessing information, organizing ideas, improving writing skills, and facilitating communication in the digital environment. The presence of ChatGPT allows students to receive feedback quickly and facilitates a more interactive learning process. Therefore, the wise and responsible use of ChatGPT can be an effective means to enhance Student Digital Communication in the current era of digital transformation.

Conclusion

Based on the research results regarding the influence of ChatGPT Usage on Students' Digital Communication, it can be concluded that the research data have met the assumptions of statistical analysis as indicated by the results of the normality test and the homogeneity test. The normality test results show a significance value of 0.717 for the ChatGPT Usage variable and 0.892 for the Students' Digital Communication variable, both of which are greater than 0.05, indicating that the data are normally distributed. Additionally, the homogeneity test results show a significance value of 0.321 for the ChatGPT Usage variable and 0.379 for the Students' Digital Communication variable, both of which are also greater than 0.05, indicating that the data are homogeneous.

The results of the simple linear regression analysis show a strong influence of ChatGPT Usage on Students' Digital Communication with a correlation coefficient (R) value of 0.698. Meanwhile, the adjusted R square value of 0.468 indicates that ChatGPT Usage contributes 46.8% to Students' Digital Communication, while the remaining 53.2% is influenced by other factors outside the study. Thus, it can be concluded that the use of ChatGPT affects students' digital communication. The more students utilize ChatGPT, the better their digital communication competence will be. Therefore, ChatGPT can serve as a supportive learning tool that helps students improve their digital communication skills in the era 5.0

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