

Analysis of the Impact of Using AI-Based Chatbots in Guidance and Counseling Services in Schools

Sul Hastevin^{1*}, Ronaldo Stefanus², Deni Yanto Birrang Allo³, Citra Prasiska Puspita Tohamba⁴, Nurhikmah⁵
Abdul Hakim⁶

¹⁻⁶ Guidance and Counseling, Faculty of Education, Universitas Negeri Makassar, Indonesia

*Corresponding Author: 250015301005@student.unm.ac.id

Abstract. The development of information technology in the Industrial Revolution 5.0 era has brought significant changes to the world of education, including guidance and counseling services in schools. The use of artificial intelligence (AI)-based chatbots is one innovation that can increase the effectiveness, accessibility, and interactivity of services for students. However, on the other hand, the use of this technology also raises challenges related to ethics, privacy, and the reduction of humanistic values in counseling interactions. Based on this, this study aims to analyze the positive impacts, negative impacts, and the role of chatbots on the effectiveness of guidance and counseling services in schools. This study uses study literature “library research”. Data collected from various sources such as book And journals related to with impact, role use chatbot in guidance and counseling services. The results of the study show that the use of chatbots has negative impacts and positive which is very helpful and useful in service guidance counseling in today's digital era but only functions as a supporting tool and cannot replace the role of a counselor "man".

Keyword: Artificial Intelligence; Counseling Services; Digital Interaction; Educational Chatbot; Technology Ethics

1. Background

In the era of the 5.0 industrial revolution, education plays a crucial role in preparing individuals to face complex paradigm shifts. Advances in information technology are currently developing rapidly and have a significant impact on various aspects of life, including education and guidance and counseling services (Lia et al., 2025). One of the most frequently used *artificial intelligence tools* today, both in everyday life and in education, is the *chatbot* (Kinoto, 2024). The existence of AI *chatbots* opens up new opportunities in counseling practices, providing fast, adaptive, and interactive information and services tailored to students' needs (Aisyah, 2025). AI *chatbots* also provide prompt service for every question asked, both during the learning process and in guidance and counseling services at school.

Many important and innovative things can be accomplished through AI *chatbots* in school counseling services, especially in today's digital era, where technology has become inseparable from everyday life. However, AI *chatbots* can also bring negative impacts and challenges if not used appropriately. This is in line with Frans Pantan's (2023) suggestion that the use of AI *chatbots* or artificial intelligence in counseling services has the potential to diminish the meaning and authenticity of humanistic values in the counseling process if counselors rely too heavily on technology without balancing it with direct, empathetic interactions.

Therefore, implementing *chatbots* in guidance and counseling services at schools can be a positive step in meeting students' needs related to any issues they experience. However, in practice, ethical *chatbot use* must still be considered to maintain the security of client data and empathetic relationships with counselors to maintain service quality. Therefore, *chatbot technology* can only be used as a tool to support service continuity but cannot replace counselors. Therefore, it is crucial to anticipate these issues by conducting further research on the positive and negative impacts that can arise from the implementation of AI *chatbots* in school counseling practices.

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Studies on the impact of using *chatbots* in education have been conducted in various countries, in Indonesia, but none have specifically studied the analysis of the impact of using AI *chatbots* in guidance and counseling services in schools, with a focus on ethical considerations and their impact on the quality of the counselor and counselee relationship (*therapeutic alliance*). So the purpose of this study is to analyze "The Impact and Role of Using AI Chatbots in Guidance and Counseling Services in Schools". The results of this study are expected to provide a clear picture of the negative impacts, positive impacts and the role of *chatbots* in counseling services in schools and offer solutions that can be practiced in optimizing the use of *chatbots* in services and counseling in schools. Therefore, this study can contribute to improving the quality of counseling services in schools by utilizing *chatbots* effectively.

2. Theoretical Study

The rapid advancement of information technology has significantly impacted various aspects of life, including education and guidance and counseling services (Lia et al., 2025). One of the most frequently used *artificial intelligence tools* today, both in everyday life and in education, is the *chatbot* (Kinoto, 2024). The presence of AI *chatbots* opens up new opportunities in counseling practices, providing fast, adaptive, and interactive information and services tailored to students' needs (Aisyah, 2025). AI *chatbots* also provide prompt service for every question asked, both during the learning process and in school guidance and counseling services.

However, AI *chatbots* can bring negative impacts and challenges if not used properly. The use of AI *chatbots* or artificial intelligence in counseling services has the potential to diminish the meaning and authenticity of humanist values in the counseling process, if counselors rely too heavily on technology without balancing it with direct, empathetic interactions (Frans Pantan, 2023). Therefore, integrating the use of AI *chatbots* in guidance and counseling must still adhere to the principles of guidance and counseling, one of the most crucial of which is the principle of confidentiality to ensure the security of client information and data. Furthermore, another challenge that can arise with the use of *chatbot technology* in counseling practice is the lack of empathetic "*human touch*," which is crucial in the guidance and counseling process.

Similarly, Winkler and Solner (2018) found in their research that *chatbots* can provide *real-time* answers but cannot understand the situation experienced. Similarly, research conducted by Nyugen et al. (2023) found that *chatbots* can improve student counseling by helping students find study plans and choose courses, although they cannot completely replace human counselors due to their lack of individuality and inspirational effect. A previous study by Lia et al. (2025) found that integrating *chatbots* into school counseling services can increase the effectiveness and accessibility of services. Thus, the position of *chatbot technology* in the counseling process can only be used as a means to assist the continuity of services but cannot replace counselors.

3. Research Methods

The research method used is library research. Library research is research conducted to collect data or materials needed to complete a research project. A study (Zed, 2024). Data were obtained from books and previous journal articles relevant to the research objectives through searches on Google Scholar, ResearchGate, ScienceDirect, and Semantik Scolar. The selected articles were *journal publications published between 2016 and 2025*. The steps used by the author to obtain relevant data were as follows: with the research objectives, namely: 1) to find data that discusses the use of AI "chatbot", 2) to identify the negative and positive impacts that arise from the use of chatbots in counseling services and 3) identifying the role of chatbots in counseling services in schools and 4) interpreting the impact and role of using chatbots in guidance and counseling services at schools. The data analysis techniques used are data reduction by identifying each finding from the literature, secondly presenting the data or categorize information based on variable focus impact positive And impact negative chatbots and the role of chatbots in guidance and counseling services in schools and finally drawing conclusions from the analyzed literature.

4. Results And Discussion

Entering the digital era has made many educational institutions utilize technology and applications to support human and organizational activities, including in the guidance service process. And counseling in school. The following will be reviewed impact positive And impact negative and the role of chatbots in guidance and counseling services at schools based on data analysis from various sources.

Impact positive Chatbot usage

Wrong One innovation technology Which Lots used moment This that is chatbot Which is an *artificial intelligence* designed to provide feedback on questions asked by users automatically. Use of chatbots in services guidance And counseling in school can become means Which effective For Facilitating students living in the 5.0 era, where artificial intelligence (AI) technology has become an integral part of their lives. One of the positive impacts of using chatbot technology is helping students be more creative in solving problems (Barr, 2018). Problems faced by students can include individual problems, social problems, and academic problems related to learning. In this case, guidance counselors can utilize chatbots to help students overcome various problems they experience. A study conducted by (Ilham et al., 2022) found that the use of chatbot technology has been proven to increase student interest in learning. This is relevant for guidance counselors to implement by utilizing chatbots in conducting initial assessments to identify student problems and as a means to explore potential. interest And talent Which owned student. In tune with Which put forward by (Alexsander, et al., 2025) that Chatbot plays a role in facilitating counseling services for students by providing access to information and assisting in the process of reporting problems that occur at school.

The positive impact of artificial intelligence chatbot technology innovation has changed the learning method and the provision of counseling services which previously only used traditional and monotonous methods, now it is interactive and more varied even though conventional methods Still still used in give service counseling in school. Chatbot implementation in practice counseling in school make it easier communication ongoing more flexible because it is not bound by space and time (Ummi, 2024). By because of that, the guidance teacher need to update on development And understand importance technology chatbot Because Also can help with administration such as making schedules and notes BK services, as well as improving the quality of guidance and counseling services (Arfansyah, 2022).

The implementation of chatbots has significant positive potential in supporting the learning process and can be adapted for school guidance and counseling services to increase reflection, interest, and effectiveness. However, its implementation requires consideration of ethical aspects, privacy, and the balance between the guidance and counselor and the guidance counselor to optimize its benefits (Deng & Yu, 2023).

Additionally, chatbots serve as a 24/7 emotional support platform. This is crucial because counselors may not always be available when individuals need immediate support. In such situations, chatbots can provide an initial response and help clients manage their emotions, as well as direct them to a counselor if needed (Trull & Carter, 2016; Wirahmi, 2024).

This innovation also enables better personalization of guidance and counseling content. Chatbots can be designed to analyze client data, such as psychological profiles and history, then present guidance materials tailored to individual needs. For example, if a student shows signs of anxiety, a chatbot can design materials that focus on anxiety management techniques that are more relevant to their condition. This capability makes guidance materials more engaging, interactive, and easier for clients to understand, which can ultimately accelerate the learning process and improve understanding (Wirahmi, 2024). Furthermore, chatbot technology in counseling also has the potential to reduce the routine workload of counselors, allowing them to focus on tasks that require more intensive human involvement and attention (Trull & Carter, 2016).

Negative Impacts of Using Chatbots

Although the implementation of *chatbots* in Guidance and Counseling (BK) services has shown many positive aspects, this study also identified several challenges where *chatbots* do not significantly impact critical thinking skills and user motivation. This occurs because *chatbots* provide answers and solutions quickly and easily. This easy access to information

and instant solutions can reduce users' habits of in-depth analysis or critical thinking in solving problems or challenges, resulting in a reliance on instant sources (Deng & Yu, 2023). This finding aligns with research confirming that the use of *AI chatbots* does not always significantly impact critical thinking skills (Widiastuti et al., 2025).

In counseling and self-development services, the success of motivation for behavioral change is greatly influenced by the therapeutic relationship rooted in authentic interactions between counselors and clients. Various studies conducted by (Amalia, R. 2019) and (Yoseppin, et al., 2025) emphasize that although chatbots are capable of providing rapid responses, their mechanical nature cannot provide true empathy (they cannot be programmed), making them unable to replace the depth of emotional connection and encouragement from guidance and counseling teachers. Therefore, chatbot interventions are often considered ineffective in increasing clients' intrinsic motivation to change and act sustainably. Furthermore, the limitations of *chatbots* in understanding complex emotional contexts and in building deep trust are also inhibiting factors in their effectiveness in encouraging sustainable motivational change (Hidayati & Permana, 2024).

Role Chatbot in service counseling in school

Role technology is Something that very important in education And service Counseling in today's digital era. Rapid technological developments require BK teachers to act as counselors in school to be able to develop various kinds of services. One of them One way is through the application of chatbots. Chatbots are a popular technology today, transforming the role of teachers from mere sources of knowledge to facilitators and companions in students' learning processes (Ilham et al., 2022). Therefore, implementing *chatbots* in Guidance and Counseling (BK) services not only improves operational efficiency and 24/7 service accessibility (Khairan & Habib, 2025), but also transforms the role of BK teachers to be more adaptive, collaborative, and focused on in-depth interventions that require *a human touch* in the digital age.

Based on the analysis of the positive and negative impacts of using chatbots, it was found that although chatbots provide a significant positive impact and are very useful in current counseling services, the role of the BK teacher as a counselor cannot be replaced. Although chatbots have been shown to provide a significant positive impact, especially in the context of early problem identification and basic emotional support, various studies by (Amalia, R. 2019) and (Yoseppin, et al., 2025) emphasize that authentic therapeutic relationships and empathy can only be provided by "human" counselors. Therefore, the core role of the BK teacher cannot be replaced by AI chatbot technology. So the position of chatbots in counseling services can only be used as a means to complement the running of counseling services in the current digital era. Therefore, chatbots only play a role as a complementary means or facilitative tool, whose function is to support and expand the reach of flexible BK services that can be accessed anywhere without limitations of space and time, not to take over the personal and in-depth counseling tasks (Amalia, 2019).

5. Conclusion And Suggestions

Based on the results of a literature review from various sources, it can be concluded that chatbots have a significant positive impact, particularly in assisting with the initial identification of problems and providing basic emotional support to students. However, chatbots cannot replace the primary role of guidance counselors, who possess the ability to empathize and build deep therapeutic relationships.

Thus, chatbots function solely as a complementary or facilitative tool in counseling services, supporting and expanding the reach of counseling services, making them more flexible, efficient, and accessible anytime and anywhere. This technology serves to enhance or complement, not replace, human interaction, the core of the counseling process itself.

The findings of this study yield several important practical implications for guidance and counseling practices in schools to ensure optimal and ethical use of technology. First, guidance and counseling teachers (BK teachers) must proactively improve their digital literacy and competency in integrating *AI chatbots*. This competency enhancement aims to ensure that *chatbots* are effectively used as administrative tools, such as scheduling and record-keeping, and as an initial *filter* in identifying student problems, rather than as a primary substitute for individual counseling sessions. Second, schools, along with

professional counseling organizations, need to immediately formulate strict and specific ethical guidelines regarding the use of AI *chatbots*. These guidelines must explicitly regulate the principle of confidentiality of client data and the limits of interventions that *chatbots* may perform to ensure the security and professionalism of services. Third, the use of *chatbots* must be balanced with a greater focus on strengthening humanistic values in counseling services. This requires BK teachers to continuously develop skills in empathy, nonverbal communication, and building a strong therapeutic alliance to ensure that service quality is not degraded by *technological interventions*.

Considering the limitations of this study which is a literature review (*library research*), it is recommended to conduct empirical research in the future, namely first, analyzing acceptance and perception in this case conducting qualitative and quantitative research to explore the perceptions and experiences of BK teachers and students directly towards the use of chatbots in counseling services with a focus on factors such as comfort, data security and level of satisfaction. second, examining the long-term impact of chatbot use on students' intrinsic motivation and the level of student dependence on instant solutions provided by technology.

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