

## Utilization of AI Media in Christian Religious Education: Effectiveness, Challenges, and Impact

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### ABSTRACT

The advancement of artificial intelligence (AI) technology has brought significant changes across various fields, including Christian religious education. However, its implementation still faces multiple challenges related to effectiveness, acceptance, and its impact on teaching and learning. This study aims to analyze the effectiveness of AI-based media in Christian education, identify the challenges that arise in its application, and explore its impact on both students and educators. This research employs a qualitative approach using a literature review method. Data were collected through an analysis of relevant literature sources, including academic journals, books, and research reports discussing the use of AI in Christian religious education. Thematic analysis was used to identify key patterns in the utilization of AI in this context. The findings reveal that AI-based media can enhance student engagement, provide more interactive learning materials, and support personalized learning experiences. However, several challenges remain, such as the limitations of AI in understanding theological concepts, concerns about the potential reduction of spiritual values in technology-based learning, as well as technical barriers and educators' readiness to adopt AI. In conclusion, the integration of AI in Christian religious education offers significant opportunities to improve learning effectiveness, but it requires a thoughtful approach to ensure alignment with theological and pedagogical principles. The implications of this study emphasize the need for curriculum development that ethically integrates AI, as well as the enhancement of digital literacy among educators and students.

**Keywords:** Artificial Intelligence; Christian Religious Education; Learning Effectiveness; Technological Challenges; AI Impact.

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### INTRODUCTION

The rapid advancement of artificial intelligence (AI) technology has brought significant transformation across various sectors, including education. In the context of Christian Religious Education (PAK), AI integration offers opportunities to enhance the learning experience through more personalized and adaptive approaches. For instance, AI-powered chatbots can provide personalized spiritual guidance, help students gain a deeper understanding of Christian teachings, and increase their engagement in the learning process (Waruwu, 2024). However, despite AI's

promising potential in PAK, its implementation remains relatively new and requires further research to understand its effectiveness, challenges, and impact. Empirical data on AI implementation in Christian Religious Education (PAK) is still limited, making it crucial to explore this topic in depth (Takaredas, 2024).

While some studies have discussed AI's potential in education in general, research specifically examining AI applications in Christian Religious Education (PAK) remains scarce. This gap includes a lack of empirical data on how AI influences teaching effectiveness, the challenges faced in its implementation, and its impact on students' understanding and spirituality. Furthermore, ethical considerations and efforts to uphold Christian values amid digital transformation have not yet been extensively explored (Wardi, 2024).

This study aims to:

- Evaluate the effectiveness of AI-based media in Christian Religious Education (PAK).
- Identify challenges that arise in AI implementation in Christian Religious Education (PAK).
- Analyze the impact of AI usage on students' understanding and spirituality.

To achieve these objectives, this study will address the following research questions:

1. How effective is AI-based media in enhancing students' understanding of Christian teachings?
2. What challenges arise in integrating AI into Christian Religious Education (PAK)?
3. What is the impact of AI usage on students' spiritual development?

This research is expected to make significant contributions both academically and practically. Academically, this study will expand the literature on technology integration in Christian Religious Education (PAK), particularly regarding AI usage. Practically, the findings can serve as a guide for educators and Christian educational institutions in implementing AI effectively and ethically while addressing potential challenges. Additionally, this research can provide insights for policymakers in formulating regulations related to AI usage in religious education.

This article is structured as follows:

- **Introduction:** Presents the background, problem identification, objectives, and research contributions.
- **Literature Review:** Discusses relevant studies on AI in education and Christian Religious Education (PAK).
- **Research Methodology:** Explains the methods used in this study.
- **Results and Discussion:** Presents research findings and their analysis.
- **Conclusion and Recommendations:** Summarizes key findings and provides recommendations for future research and practice.

## RESEARCH METHOD

This study employs a qualitative approach using the library research method. This method was chosen to gain an in-depth understanding of the utilization of AI-based media in Christian Religious Education (PAK) through the analysis of relevant literature. A similar approach has been used in previous studies to explore AI integration in the context of Christian missions (Kumowal, R. L., & Kalintabu, H, 2023).

Data is collected from various sources, including journal articles, books, and other academic publications discussing related topics. Data analysis is conducted using content analysis techniques, which enable the researcher to identify key themes and emerging patterns from the reviewed literature. This method is effective in understanding the opportunities and challenges associated with AI implementation in enhancing the effectiveness of evangelism and biblical teaching within church settings (Kumowal, R. L., & Kalintabu, H, 2023).

Furthermore, this study also incorporates a philosophical methodology in Christian Religious Education to analyze the ontological, epistemological, and axiological foundations of AI integration in PAK. This approach helps in understanding the philosophical and theological implications of AI technology implementation in the context of religious education (Brek, M., Rantung, D. A., & Naibaho, L, 2024). By employing this method, the study is expected to provide a comprehensive insight into the effectiveness, challenges, and impact of AI-based media in Christian Religious Education.

## **RESULTS AND DISCUSSION**

The development of digital technology, particularly Artificial Intelligence (AI), has had a significant impact across various fields, including Christian religious education. AI enables personalized learning, enhances interaction between students and learning materials, and provides broader access to relevant educational resources (Waruwu, 2022). In the context of Christian religious education, AI presents an opportunity for educators to deliver material more effectively, while also posing challenges related to ethics, theological validity, and students' faith comprehension (Laia et al., 2024).

The implementation of AI in Christian religious education is not merely about improving learning effectiveness but also about integrating this technology without diminishing spiritual and theological values. According to Akullah and Dantani (2024), the use of AI in Christian education must carefully consider moral and religious aspects to ensure that it does not replace the role of human educators as primary guides. As stated by Laia et al. (2024), "AI can serve as an effective tool in theological education, but it cannot replace authentic spiritual experiences." Therefore, it is crucial to thoroughly examine the impact of this technology to ensure its utilization supports students' faith development while remaining grounded in Christian principles.

The following section on results and discussion will elaborate on the key findings regarding the effectiveness, challenges, and impact of AI-based media in Christian religious education, based on the collected data and conducted analysis.

### **Enhancing Student Engagement**

The use of artificial intelligence (AI)-based media in Christian Religious Education has demonstrated significant potential in increasing student engagement. AI enables the delivery of more interactive and adaptive learning materials, thereby motivating students in the learning process. For instance, AI can provide realistic social situation simulations, making learning more effective and engaging (Malau & Brake, 2022).

Additionally, AI allows for the personalization of spiritual learning, where materials can be tailored to each student's needs and level of understanding. This approach helps students gain a deeper and more contextualized comprehension of religious teachings (Waruwu, 2024). With AI's ability to adjust content to individual needs, students can enhance their understanding of the Bible or access learning resources at any time (Rajiman, 2024).

However, the implementation of AI in Christian education also presents challenges. One major concern is the potential bias in AI algorithms, which could influence how religious information is presented or how learning materials are recommended (Pantan, 2023). Moreover, there is a concern that AI usage might diminish the role of teachers as spiritual mentors, making it essential to ensure that technology serves as a supportive tool rather than a substitute for educators (Waruwu, 2024).

Therefore, it is crucial for educators and educational institutions to consider ethical and integrity aspects in AI implementation. With a thoughtful approach, AI can serve as an effective tool in supporting Christian Religious

Education while preserving spiritual values and maintaining the central role of educators in guiding students (Rajiman, 2024).

Artificial Intelligence (AI) has significantly transformed educational methodologies by enabling the creation of more interactive learning materials, such as simulations and educational games, which facilitate a deeper understanding of theological concepts among students. This aligns with findings that suggest AI can enrich the learning process by providing more immersive and personalized experiences. For instance, Oliver (2018) discusses the potential of Digital Game-Based Learning (DGBL) within Technology-Enhanced Learning (TEL) as an innovative tool to enhance education, including theological studies. Moreover, Vlachopoulos and Makri (2017) conducted a systematic literature review indicating that games and simulations positively impact learning goals, identifying cognitive, behavioral, and affective outcomes. However, it is essential to consider ethical aspects such as data privacy and algorithmic bias when implementing AI in education.

### **Support for Personalized Learning Experiences in Christian Education**

In the digital era, artificial intelligence (AI) increasingly plays a crucial role in education, including within Christian education. One of AI's primary benefits is its ability to analyze student learning data in real time and tailor instructional materials and methods to meet individual needs. This approach enables the creation of personalized curricula that not only cater to each student's unique needs but also enhance their understanding of Christian teachings.

### **Personalization in Christian Education**

Personalized learning has become a major trend in modern education. According to the U.S. Department of Education (2017), personalized learning refers to an approach in which the pace, methods, and content of learning are tailored to the specific needs of each student. In the context of Christian education, this can be applied to ensure that students grasp spiritual values in the most effective way for them.

AI has significant potential to support faith-based learning by adjusting biblical materials according to students' levels of understanding. For example, AI systems can analyze students' responses to doctrinal questions and adapt learning materials accordingly. According to Luckin et al. (2016), adaptive technology in education can enhance learning experiences by providing specific and personalized feedback.

### **The Advantages of AI in Christian Education**

1. **Curriculum Adaptation** AI allows educators to adapt curricula according to students' learning speeds and interests. A study by Popenici and Kerr (2017) states that AI can create a more inclusive learning experience by adjusting educational content to meet individual needs.
2. **Enhanced Understanding of Christian Teachings** With AI, students can gain deeper insights into Christian teachings through more interactive learning. This technology can recommend Bible readings or theological literature relevant to students' comprehension levels, supported by data-driven analysis (Holmes, 2019).
3. **Data-Driven Approach to Spiritual Assessment** Spiritual assessment is often subjective, but AI can provide more objective metrics through data analysis. For example, AI can help measure students' theological understanding based on their response patterns in exams or class discussions (Selwyn, 2019).

## **Challenges and Ethical Considerations in Using AI in Christian Education**

Despite its advantages, the application of AI in Christian education faces challenges, particularly regarding ethics and spiritual values. Some scholars argue that technology cannot fully replace the spiritual guidance provided by human educators (Smith & Anderson, 2018). Therefore, AI should serve as a supportive tool that complements rather than replaces faith-based instruction.

### **CHALLENGES THAT HINDER**

#### **The Limitations of AI in Understanding Theological Concepts**

Although AI can process and analyze texts at an exceptional speed, it still has limitations in grasping the nuances and depth of theological concepts. Theology is not merely a collection of information; it also involves spiritual, interpretive, and personal experiential dimensions that are difficult for machines to capture. As Smith (2021) argues, AI tends to struggle with understanding the historical, cultural, and linguistic contexts embedded in religious texts. This challenge can hinder its ability to convey complex and profound theological material accurately (Johnson & White, 2020).

#### **Concerns Over the Potential Reduction of Spiritual Value**

The implementation of AI in religious education raises concerns about the potential reduction of spiritual value and religious experience. Theological education is not solely about delivering information; it also aims to shape faith, character, and spiritual experience. According to Jones (2019), technology-based learning may not be able to replace the depth of personal relationships between educators and students, which often serves as a crucial aspect of religious education. The religious experience gained through human interaction may diminish when technology takes over the educator's primary role (Brown, 2022).

#### **Technical Barriers and Educator Readiness**

The integration of AI into theological education requires adequate technological infrastructure and skilled educators who can operate these systems. However, many theological institutions still face limitations in terms of technological resources and educator training. This lack of preparedness can pose a significant challenge to the effective implementation of AI. As Anderson and Carter (2021) point out, the readiness of educators in utilizing AI plays a crucial role in determining the success of its integration into education.

### **The Impacts of Artificial Intelligence on Christian Religious Education**

#### ***Enhancing Learning Effectiveness***

AI has the potential to improve the effectiveness of theological learning by providing interactive and personalized materials. With the help of AI, students can access learning resources tailored to their needs, enabling a deeper understanding of Christian teachings. According to research by Williams (2023), AI in education can help students comprehend and internalize theological teachings more effectively through adaptive and responsive learning methods.

#### **Transformation of the Educator's Role**

The use of AI may shift the role of educators from being the primary source of information to facilitators in the learning process. This requires educators to develop new skills in guiding students and interpreting AI-generated

insights. As Miller (2020) states, the role of educators in the AI era is no longer just to deliver information but to act as mentors who assist students in theological reflection and critical thinking development.

### **Broader Access to Learning Resources**

AI can expand access to various learning resources that may have previously been difficult for students to reach, such as ancient manuscripts, interpretations from different traditions, and the latest academic sources. This can enrich the learning experience and broaden students' perspectives on Christian teachings. According to a report by the Digital Theology Initiative (2022), the use of AI in religious education has increased accessibility to theological literature for many students worldwide.

The integration of AI into theological education offers various benefits, including enhanced learning effectiveness, changes in the educator's role, and wider access to learning resources. However, challenges such as AI's limitations in understanding theological concepts, concerns about the reduction of spiritual values, and technical barriers related to educator readiness must be carefully considered. Therefore, a wise approach to integrating AI into theological education is essential to ensure that this technology serves as a supportive tool for learning without diminishing the essence of religious education itself.

### **CONCLUSION**

The utilization of AI in Christian religious education holds the potential to enrich the learning process by providing a more dynamic, interactive, and personalized experience tailored to students' individual needs. This technology can enhance student engagement, present material in a more engaging manner, and offer a more adaptive approach to delivering religious teachings.

However, the implementation of AI in this field also faces significant challenges that cannot be overlooked. One of the primary obstacles is AI's limitation in comprehending and interpreting deep and spiritual theological concepts. Additionally, there are concerns that excessive reliance on technology may diminish the personal and transcendent dimensions of religious learning. Other challenges include the readiness of educators to effectively utilize AI and the technical difficulties that may arise during its application.

Therefore, the integration of artificial intelligence in Christian religious education must be approached with careful and responsible strategies. A balance between technological advancements and the preservation of spiritual values is essential to ensure that learning remains theologically and pedagogically relevant. This study highlights the need for curriculum development that not only accommodates AI as a teaching tool but also instills ethical awareness in its use. Furthermore, enhancing digital literacy among educators and students is a crucial aspect to maximize the benefits of AI without compromising the essence of Christian religious education.

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