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THE FUTURE OF EDUCATION: LEVERAGING TECHNOLOGY TO IMPROVE THE QUALITY OF LEARNING

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ABSTRACT
Artificial intelligence (AI) has become a key factor in the transformation of education in the digital era. This research aims to explore how AI can be used to develop interesting and effective interactive learning media. With AI's ability to analyze student learning behavior and preferences, learning media can be tailored to individual needs, improving student understanding and skills. The research method used is a literature review, which collects and analyzes information from various sources regarding the application of AI in education. The research results show that the use of AI-based tools, such as interactive simulations and virtual tutors, not only increases student engagement but also operational efficiency in educational environments. However, challenges such as the digital divide and ethical issues need to be addressed to ensure effective implementation. This research provides valuable insights for educators and other stakeholders about the potential and challenges of using AI in creating better learning experiences, as well as encouraging collaboration between researchers, educators and technology developers to improve the quality of education in the future.

INTRODUCTION

Artificial intelligence (AI) has emerged as one of the most influential technological innovations in various fields, including education. In this evolving context, AI not only functions as a tool, but also as a strategic partner in the learning process. With the ability to mimic human cognitive traits, such as thinking, learning, and problem solving, AI can change the way we design and deliver education. In recent years, the use of AI in education has increased rapidly, creating opportunities to create more effective and engaging interactive learning media.

Learning media has an important role in the educational process. Educators are required to be more innovative in carrying out the learning process so that it is not monotonous and encourages students' interest to focus on learning (Sudrajat, et.al, 2023), media AI-powered interactive learning offers learning experiences tailored to students' individual needs. Through data analysis and advanced algorithms, AI can identify student strengths and weaknesses, enabling more responsive and adaptive teaching. This is especially important considering the challenges faced by traditional education systems which are often one-way and unable to meet the needs of diverse students. Therefore, this research aims to explore the role of AI in the development of interactive learning media and its impact on the teaching and learning process.

The background to this research focuses on the need to overcome the limitations of conventional education and find innovative solutions through the application of technology. This research will evaluate various AI-based tools that can be used in interactive learning media and how these tools can improve student learning outcomes. Apart from that, this research will also discuss the challenges and opportunities that arise along with the integration of this technology in education.

With increasing interest in the use of technology in education, it is important for researchers, educators, and other stakeholders to continue to explore the potential of artificial intelligence. It is hoped that this research will provide a significant contribution to the academic literature as well as practical guidance for the implementation of AI in education, with the ultimate goal of improving the quality of learning experiences in the future.

METHOD

Artificial intelligence (AI) has become one of the most influential technologies in education in the digital era, with the ability to imitate human cognitive traits such as thinking and learning, which allows the development of more effective and engaging interactive learning media. This research aims to explore how AI can be used to create learning media tailored to students' needs, improving their understanding and skills through analysis of learning behavior and preferences. The research method used is a literature review, which involves collecting and analyzing data from various sources regarding the application of AI in education, as well as the associated benefits and challenges. This study highlights the importance of personalized learning, where AI can identify students' strengths and weaknesses, as well as improve operational efficiency by automating administrative tasks. Secondary data sources from research are scientific articles from previous research or books with the same study (Rahmawati, 2023). Even though there are challenges such as the digital divide and ethical issues, the research results show that AI has great potential to transform the learning experience and improve the quality of education in the future. future, encouraging collaboration between researchers, educators and technology developers to create relevant learning content.

RESULTS AND DISCUSSION

The results of this research indicate that artificial intelligence (AI) has significant potential in the development of interactive learning media, which can substantially improve students' learning experiences. Through data analysis and advanced algorithms, AI can create learning environments tailored to individual needs, enabling greater personalization of learning. Research shows that implementing AI-based tools, such as interactive simulations and virtual tutors, not only increases student engagement but also helps them understand complex concepts more effectively. Multimedia-based learning media combines video, text and audio into a unified form of media (Zahro & Kanzunuddin, 2022).

Additionally, this study identified that AI also plays a role in improving operational efficiency in educational environments. By automating administrative tasks and providing real-time feedback, AI allows educators to focus more on direct interactions with students. This is particularly relevant in the context of distance education, where learning experiences can be simulated through the use of virtual tutors and voice-based assistants. Research by Johnson et al. (2016) supports these findings by showing that technology can speed up the process of evaluating student progress and improve the quality of learning.

However, implementing AI in education is not without challenges. The digital divide, the need for technological skills among educators, and issues of ethics and data privacy are obstacles that need to be overcome to ensure the effectiveness of this technology integration. According to Isdayani B. (2024), these challenges must be faced by improving technological infrastructure and training for educators to make optimal use of AI-based tools. Overall, the results of this research confirm that artificial intelligence has great potential to transform interactive learning media and improve the quality of education in the digital era. To achieve this goal, collaboration between researchers, educators and technology developers is needed in creating relevant and high-quality learning content. It is hoped that this research will provide a significant contribution to the

academic literature as well as practical guidance for the implementation of AI in education, thereby encouraging innovation and improving the quality of learning experiences in the future.

CONCLUSION

The conclusion of this research shows that artificial intelligence (AI) has great potential in developing interactive learning media, which can significantly improve students' learning experiences. AI is able to create learning environments tailored to individual needs through data analysis and advanced algorithms, enabling greater personalization of learning. Implementation of AI-based tools, such as interactive simulations and virtual tutors, not only increases student engagement but also helps them understand complex concepts more effectively. However, challenges such as the digital divide and ethical issues need to be addressed to ensure effective integration of AI in education.

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