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ARTIFICIAL INTELLIGENCE IN TEACHING ISLAMIC STUDIES: CHALLENGES AND OPPORTUNITIES

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Abstract
This research aims to explore the potential use of AI technology in Islamic education learning and provide a deeper understanding of the challenges and opportunities associated with AI integration in this context. This research uses a systematic literature review to investigate the implementation and challenges of AI in Islamic Studies teaching. A literature search was conducted in several databases, including Scopus, ERIC, and Google Scholar. Data retrieved from the selected studies were thematically analyzed to identify important patterns, similarities, and differences among the studies. This research led to the findings: AI has the potential to assist in accelerating student development and making teaching more satisfying. In addition, teachers can also use AI to improve their teaching practice and professional experience. However, challenges, such as ethical considerations and data privacy, must be addressed carefully. This research is expected to contribute to understanding the implementation of AI in Islamic Studies teaching, particularly from a sociocultural perspective. The results of this study are expected to provide valuable insights for educational practitioners and researchers in this field. In addition, this research can also help improve the understanding and practice of religious values in daily life.
Keyword: Artificial Intelligence (AI); Islamic Education; Ethical Challenges.

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INTRODUCTION

Religious education, especially Islamic education, shapes individual character and morality. In this era of rapidly developing technology, artificial intelligence (AI) has become an interesting topic in education, including Islamic education learning. AI technology offers various potentials to enhance students' learning experience in understanding and practicing Islamic teachings (Wiranto & Suwartini, 2022).

AI is the result of science and technology achieved in the modern century, precisely since the computer era, and is developing rapidly along with advances in information technology that lead to digitalization in all fields (Akromusyuhada et al., 2023). The main advantages of AI include the incredible speed of thought, high accuracy and precision, and minimal errors, as it does not suffer from fatigue, drowsiness, or shifts in focus as humans often do (Shamdi et al., 2022).

An important challenge in implementing AI into Islamic education is to ensure that the technology is aligned with the values and principles of Islamic teachings. This requires careful consideration of the ethical implications and the creation of AI systems that respect and uphold the core beliefs of Islam.

Despite these challenges, AI offers many opportunities in Islamic education. AI can help create learning pathways tailored to students' needs, automate administrative tasks so educators have more time for meaningful interactions, and facilitate collaborative learning in virtual environments.

Although the use of technology in religious education has increased, several challenges are still faced in integrating AI into Islamic education learning (Wandansari et al., 2022). One of these is the lack of a deep understanding of how AI can be effectively implemented in the context of religious teaching (Millatina & Azfar, 2023). In addition, there are still concerns about how these technologies may affect the religious aspects of Islamic education (Kopp & Finney, 2013).

The main challenge in integrating AI into Islamic education is ensuring that these technologies can be used to support the goals of religious education, not replace them (Vinichenko et al., 2020). Therefore, it is important to conduct further research on how AI can be used in Islamic education and improve education quality.

Most studies have investigated AI in education from a technological perspective (Bankins & Formosa, 2023). However, this approach cannot achieve a deep understanding

of the complex role of AI in the instructional and learning process and its relationship with other elements of education.

Although AI has shown great educational potential, significant knowledge gaps remain. For example, research has shown that publications on AI in education have increased considerably in recent years. However, most of this research comes from computer science and STEM disciplines, not from education departments (Crompton & Burke, 2023). Moreover, this research often uses AI for assessment and evaluation, prediction, AI assistants, intelligent tutoring systems, and student learning management (Chan, 2023; Zawacki-Richter et al., 2019). However, there is still a need for further research on how AI can be used to support more effective instruction and learning (Limna et al., 2022). Therefore, it is important to conduct further research on how AI can be utilized in Islamic education and how this can improve education quality.

The solution to overcome this challenge is to conduct more in-depth research on how AI technology can be effectively integrated into Islamic education learning. This includes developing learning methods and tools compatible with Islamic values and principles and ensuring these technologies do not interfere with Islamic education's spiritual and religious aspects.

AI can assist in accelerating student development and making teaching more satisfying1. In addition, teachers can also use AI to improve their teaching practices and professional experience (Karim & Sugianto, 2023). In the context of Islamic education, further research can be conducted to explore the ethics of AI from an Islamic perspective and how this can contribute to global ethical norms for designing and using AI technologies.

This study explores the potential use of AI technology in Islamic education learning. The research aims to understand better the challenges and opportunities associated with AI integration in this context. This research aims to provide concrete recommendations for Islamic education practitioners and technology developers to improve the quality of religious learning by utilizing AI.

AI has the potential to assist in accelerating student development and making teaching more satisfying (Shamdi et al., 2022). In addition, teachers can also use AI to improve their teaching practices and professional experience (Muttaqin, 2023). In the context of Islamic education, further research can be conducted to explore the ethics of AI from an Islamic perspective and how this can contribute to global ethical norms for designing and using AI technologies.

This research is important in developing more innovative and effective learning methods for Islamic education (Bai, 2024). By using AI technology wisely, it is hoped that Islamic religious education can become more interesting and relevant to the younger generation of Muslims. In addition, this research can also help improve the understanding and practice of religious values in daily life.

AI has the potential to assist in accelerating student development and making teaching more satisfying. In addition, teachers can also use AI to improve their teaching practices and professional experience. In the context of Islamic education, further research can be conducted to explore the ethics of AI from an Islamic perspective and how this can contribute to global ethical norms for designing and using AI technologies.

METHODS

Using a systematic literature review, this research aims to investigate the implementation and challenges of Artificial Intelligence in teaching Islamic Studies and the opportunities that may exist. It analyses the various aspects, strategies, and impacts of implementing Artificial Intelligence in teaching Islamic Studies. This research aims to document the research on the implementation of Artificial Intelligence in teaching Islamic Studies. Second, to analyze the approaches, strategies, and socio-cultural context in implementing Artificial Intelligence in teaching Islamic Studies. Thirdly, to study the impact of Artificial Intelligence implementation on students' learning and skills.

A literature search will be conducted in several databases, including Scopus, ERIC, and Google Scholar. The keywords used include "Artificial Intelligence," "Islamic Studies," and other related keywords. The search will be limited to journal articles, books, and research reports published between 2010 and 2024. The studies found will be screened based on predetermined inclusion and exclusion criteria. Inclusion criteria include studies specifically addressing the implementation of Artificial Intelligence in teaching Islamic Studies. Studies that are irrelevant or do not fulfill the inclusion criteria will be excluded from the review.

The extraction and analysis of data drawn from the selected studies will include information on the context of the implementation of AI, the approaches and strategies used, and the impact on student learning and skills. The data will be analyzed thematically to identify important patterns, similarities, and differences between the studies. The methodological quality of the selected studies will be evaluated using appropriate assessment

tools, such as Cochrane criteria or other qualitative assessment tools. Studies with stronger methodology will be given greater weight in the analysis.

The synthesis and interpretation of the analysis results will be synthesized to develop a comprehensive understanding of the implementation of artificial intelligence in teaching Islamic studies. Practical and theoretical implications of the findings and recommendations for future research. This research report will be prepared based on the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines, which present the findings transparently and comprehensively per the established guidelines.

This systematic literature review is expected to contribute to understanding the implementation of Artificial Intelligence in teaching Islamic Studies, especially from a sociocultural perspective. The results of this study are expected to provide valuable insights for educational practitioners and researchers in this field. This research method will follow a systematic and structured approach to investigate the literature relevant to the research topic. This literature review will utilize PRISMA guidelines to ensure transparent and accurate reporting of the research findings.

Artificial Intelligence in Education: Its Potential, Application, and Benefits

Artificial Intelligence is increasingly prevalent in various industries, including education. Its potential to revolutionize how students learn and educators teach is immense (Fadlurrahman et al., 2024). In this ever-evolving digital era, AI can personalize learning experiences, automate administrative tasks, and provide in-depth data analysis to improve decision-making. As we delve deeper into integrating AI into education, it is important to understand its application and how it can improve the learning environment for students and educators (Septiany et al., 2024). AI can be leveraged to create personalized student learning experiences by analyzing their learning styles, pace, and preferences. By utilizing AI-powered tools, educators can offer customized content and resources to meet the needs of each student, ultimately driving a more engaging and effective learning process.

Additionally, AI can simplify administrative tasks such as grading, scheduling, and record-keeping, allowing educators to allocate more time to learning activities and student interactions (Demilie, 2024). This automation can lead to greater efficiency and productivity within educational institutions.

In addition, AI's data analysis capabilities allow educators to gain valuable insights into student performance, identify areas for improvement, and make informed decisions to

improve teaching strategies (Fadlurrahman et al., 2024). By utilizing AI technology, educators are empowered to customize their methods to suit the diverse needs of their students better.

In teaching, AI can provide learning approaches tailored to each student's needs (Fadlurrahman et al., 2024). With in-depth analyses of students' learning styles, progress, and preferences, AI can generate more precise recommendations to meet students' personalized learning needs. This approach helps improve student engagement and ensures that each student gets help according to their needs.

In addition, AI can also play a role in the evaluation of learning outcomes. With its in-depth analysis of student performance, AI provides educators with valuable information about individual student development and which areas require additional attention (Zhu et al., 2023). Thus, educators can design more effective teaching strategies that address the unique needs of each student.

Through the application of AI in education, we can expect positive changes in how education is understood and accessed. With a more personalized, adaptive, and responsive approach, AI has great potential to create a more inclusive and beneficial learning environment for all students.

Strategies for Developing Artificial Intelligence in Education

In developing artificial intelligence in education, a holistic and sustainable strategy must be implemented to ensure that this technology can add significant value to learning.

It is important to focus on developing AI to provide individualized student support. This can be done by integrating AI into adaptive learning that can customize learning materials and methods according to each student's needs and level of understanding. Thus, each student can have a learning experience that suits his or her abilities, improving the effectiveness and efficiency of learning.

The application of AI technology should also pay attention to developing critical skills for students, such as problem-solving, creativity, and critical thinking ability. AI can be used in learning to provide challenges that match students' intelligence levels and interests, increasing students' motivation and engagement in the learning process.

AI development can also focus on enriching the curriculum with innovative content that supports the development of students' multiple intelligences. With the application of AI in creating and presenting learning materials that are interesting and suitable for students' learning styles, the learning process can become more interesting and varied.

Ensuring the continued development of AI in education requires investment in research and development of AI technologies relevant to educational needs. Increased collaboration between educational institutions, industry, and government can drive the development of innovative and impactful AI solutions for learning.

By implementing a holistic and sustainable AI development strategy, AI can be an effective tool in creating learning experiences that can improve the quality and relevance of education for all students.

AI Implementation in School Curriculum

To discuss the implementation of AI in the school curriculum, we can take an example of a high school that successfully integrates AI technology into learning. Using an AI-powered online learning platform, the school can personalize students' learning experiences based on their progress. The system also provides valuable information to educators to identify areas that need more attention and improve teaching strategies (Marlin et al., 2023).

In this implementation, schools work closely with AI experts and educators to develop approaches that suit the needs of students and ensure that the use of AI technology does not compromise the human and caring aspects of the educational process.

Through a collaborative and sustainable approach, the school overcame technical obstacles and optimized the benefits of AI in improving learning effectiveness. This case study shows that with the cooperation between technologists and educators, integrating AI into the school curriculum can significantly impact students and the teaching process.

Several popular AI technologies have made a significant impact in the education sector. One is Chatbot, which can quickly respond to student queries and assist with school administration (Vogt et al., 2024). Chatbots can also assist students in learning, making it a virtual assistant ready to help students.

In addition, Adaptive Learning technology uses AI to tailor learning materials to students' abilities and needs (Syse & Cook, 2023). By integrating and analyzing students' responses to learning materials, AI can adjust curriculum and teaching methods in real-time, creating an optimal learning experience for each student.

AI technology also creates learning content, such as automatically generating exam questions based on difficulty levels that match students' abilities (Septiany et al., 2024). This allows for more accurate and fair assessment and reduces educators' burden of manually composing exam questions.

With the continuous development of AI technology, the education sector can continue to utilize various innovations to improve the effectiveness and quality of learning. By understanding the advantages and applications of AI technology, educators can explore ways to enhance students' learning experience and create a more innovative and inclusive educational environment.

Moreover, Adaptive Learning technology uses AI to customize learning materials based on students' abilities, thus creating an optimal learning experience by adapting curriculum and teaching methods in real time to suit each student's needs (Sentosa, 2024).

Continued advances in AI technology offer ongoing opportunities for the education sector to capitalize on innovation and improve the quality and effectiveness of the learning experience (Simonigar et al., 2023). By understanding the power and application of AI technology, educators can explore diverse approaches to enhance student learning and create a more innovative and inclusive educational environment.

The benefits of using Artificial Intelligence in learning and teaching are diverse. One is its ability to provide timely and personalized student feedback (Septiany et al., 2024). With in-depth data analysis, AI can provide specific information about each student's learning progress so that educators can provide guidance that suits individual needs.

In addition, integrating AI in learning enables the application of projection-based teaching methods that support real practice in the educational process (Sentosa, 2024). This helps students to develop practical skills and principles of theoretical concepts in a real-world context.

With these benefits, it cannot be concluded that AI greatly improves the effectiveness of the learning and teaching process. With a deep understanding of AI applications in educational contexts, we can use this technology to create more meaningful and empowering learning experiences for students and educators.

Challenges and Solutions in AI Integration in Education

The role of AI in transforming education is undeniable. Through its ability to analyze large amounts of data, AI can offer personalized learning experiences for students, facilitate administrative tasks, and provide valuable insights for educators. One popular AI technology in the education sector is using chatbots to provide instant support and guidance to students.

These virtual assistants can answer questions, provide feedback on assignments, and provide additional resources to aid the learning process.

An interesting case study on the application of AI in schools is the use of AI-powered educational software that adapts to the needs of individual students. These programs can adjust the difficulty of the material based on student performance, ensuring that each student is appropriately challenged and supported (Wandansari et al., 2022).

While AI brings many benefits to education, challenges such as ethical considerations and data privacy must be carefully addressed. Educators and policymakers need to set clear guidelines on the ethical use of AI and maintaining student data privacy. The integration of AI in education is expected to continue to grow. Adopting AI-based tutoring systems, virtual reality for immersive learning experiences, and advanced data analysis for early intervention are anticipated trends in the next decade.

Navigating this transformative era, it is important for educators and stakeholders in the education sector to continuously assess the impact of AI, implement ethical practices, and utilize AI technologies to create a more adaptive and dynamic learning environment for future generations. Artificial Intelligence has made significant progress in transforming the education sector, and its role is expected to continue to increase. One of the most prominent benefits of AI in education is its ability to provide personalized learning experiences for students. By analyzing students' learning styles, paces, and preferences, AI can tailor content and resources to meet the individual needs of each student. This not only increases engagement but also makes the learning process more effective.

AI can also simplify administrative tasks, allowing educators to focus more on teaching activities and student interactions. AI-powered chatbots for instant support and guidance are one example of how technology is being utilized to enhance the learning experience. These virtual assistants can provide real-time assistance, feedback on assignments, and additional resources, thus supporting students' educational journey.

Additionally, implementing AI-powered educational software that adapts to individual students' needs has greatly impacted how students learn. These programs can dynamically adjust the difficulty level of material based on student performance, ensuring that each student is appropriately challenged and supported.

However, as AI becomes more prevalent in education, ethical and data privacy considerations must be addressed. Clear guidelines must be established to ensure the ethical

use of AI and safeguard student data privacy. Educators and policymakers must address these challenges and establish best practices for AI integration in education.

The future of AI in education brings more significant changes. Anticipated trends include implementing AI-based tutoring systems, using virtual reality for immersive learning experiences, and advanced data analysis for early intervention. These developments can create a more adaptive and dynamic learning environment for future generations.

As we move forward, educators and stakeholders in the education sector must continue to assess the impact of AI, uphold ethical practices, and utilize AI technologies to create more inclusive and innovative learning environments for all students.

One of the key challenges is the lack of understanding and technical skills required in implementing and utilizing AI in educational settings. Human resources skilled in understanding, managing, and integrating AI technologies effectively are crucial in optimizing the benefits of AI in the learning process (Zhu et al., 2023).

In addition, concerns related to data privacy and security are issues that need serious attention in implementing AI in education. It is important to establish clear policies and transparent governance regarding the use of student data in the context of AI, thus protecting student privacy and ensuring data security (Vogt et al., 2024).

Educators and stakeholders in the education sector can overcome these challenges through an integrated approach, customized training, and clear guidelines related to ethics and security. Thus, using AI technologies can deliver maximum benefits and provide a more meaningful learning experience for students while keeping the security and privacy of student data in mind.

CONCLUSION

Artificial Intelligence (AI) has become an integral part of the education sector, providing significant benefits such as personalizing learning experiences, automating administrative tasks, and deep data analysis to improve decision-making. AI has helped create a more inclusive and beneficial learning environment for all students. Nonetheless, ethical considerations and data privacy must be carefully addressed. It is important for educators and stakeholders in the education sector to continuously assess the impact of AI, implement ethical practices, and utilize AI technologies to create a more adaptive and dynamic learning environment for future generations.

To maximize the benefits of AI in education, further research is needed in several areas. First, research on how AI can be more effective in providing individualized student support. Secondly, research on how AI can be used to develop critical skills for students. Third, research on how AI can enrich the curriculum with innovative content. Fourth, research on how AI can improve efficiency and productivity in educational institutions. Finally, research on how AI can be used to protect the privacy and security of student data. With further research in these areas, we can ensure that AI benefits the education sector.

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