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The Role of Artificial Intelligence in the Transformation of Knowledge in Muslim Societies: A Multidisciplinary Study

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ABSTRACT

This research explores the role of Artificial Intelligence (AI) in transforming knowledge among Muslim communities through a multidisciplinary approach involving aspects of Islamic education, technology, ethics, and cultural sociology. The study examines how AI can improve the quality of Islamic learning through personalized materials, data-driven evaluation, and optimized educational management, while also presenting challenges related to infrastructure, digital literacy, and ethical issues such as algorithmic bias and data privacy. Furthermore, the study emphasizes the importance of developing AI technology that is sensitive to Islamic values and cultural norms, as well as the need for regulations that integrate the principles of maqāṣid al-sharī'ah to ensure harmonious and sustainable implementation. These findings provide comprehensive insights into the potential and constraints of AI in responsibly enriching and modernizing the knowledge structure of Muslims.

1. Introduction

The development of artificial intelligence (AI) technology has had a significant impact on how society accesses, processes, and disseminates knowledge, including in a religious context. In Muslim societies, this transformation not only affects the Islamic education system but also creates new opportunities for delivering religious teachings in a more interactive, personalized, and contemporary manner. (Moh. Zarkani, et al.: 2022) Several studies have shown that the integration of AI in Islamic education can strengthen learning effectiveness and improve the curriculum's adaptability to the dynamics of the digital era, particularly in the context of Society 5.0.

The emergence of AI has also triggered a shift in knowledge authority, with individuals, particularly students and the younger generation, increasingly relying on intelligent machines as sources of religious information, replacing the traditional role of religious scholars and classical texts. This transformation poses serious challenges to the sustainability of scholarly authority in Islam, particularly in maintaining the authenticity and validity of teaching sources. As AI begins to be used as a tool for learning and interpreting religious texts, a critical examination of how algorithms influence perception, interpretation, and knowledge formation among Muslims is necessary.

Besides its potential, the use of AI in the context of Islamic scholarship also raises ethical issues. Principles of etiquette in seeking knowledge, such as honesty, moral responsibility, and sound intentions, are highly relevant to review to prevent misuse of the technology. The values outlined in classical scientific literature, such as those found in the Adab al-Muta'allim

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(The Law of the Prophets), can serve as an important reference in guiding the use of AI within the framework of Islamic etiquette and morality. Therefore, a multidisciplinary approach involving technology, theology, education, and ethics is needed to ensure that the use of AI does not conflict with the basic principles of Islamic scholarship.

2.Literature review

1. Artificial Intelligence in Educational and Religious Contexts

Artificial intelligence (AI) has become a key tool in transforming various sectors, including education and religious practices. In the context of Islamic education, AI is used as an instrument to improve the quality of learning through adaptive systems, personalized materials, and rapid and broad access to various sources of Islamic knowledge. Zarkani et al. (2022) emphasize that AI has great potential in developing Islamic learning systems that meet the demands of the Society 5.0 era, an era that emphasizes the integration of humans and intelligent technology in everyday life. Furthermore, Yusuf and Ristianah (2023) demonstrate that the integration of AI in Islamic education can create a learning system that is more flexible and responsive to students' needs. This is especially important amidst the current of global digitalization that demands high efficiency and accessibility of information.

2. Transformation of Scientific Authority and Access to Religious Knowledge

The presence of AI has also changed the landscape of scholarly authority in Muslim societies. While previously religious knowledge was conveyed through the authority of clerics, religious teachers, and classical literature, AI is now increasingly relied upon as an alternative source in the search for religious answers. Musthafa (2023) suggests that university students and scholars are increasingly utilizing AI-based platforms to understand Islamic teachings, ultimately shifting the traditional structure of scholarly authority.
This change presents a unique challenge: ensuring that AI-generated religious information is valid, unbiased, and rooted in Islamic scientific principles. Therefore, the involvement of academics, religious scholars, and technology experts is essential to ensure both accuracy and ethical values in this knowledge transformation process.

3. Ethics and Etiquette in the Use of Scientific Technology

In the treasury of Islamic scholarship, etiquette, or ethics, in seeking and disseminating knowledge holds a crucial position. The use of AI in academic and religious activities must consider these principles of etiquette to avoid shifting the moral values of the scientific process itself. Septiana et al. (2023), in their study of the book Adabul 'Ālim wal-Muta'allim, explained that etiquette in seeking knowledge encompasses honesty, moral responsibility, and the connection between intention, deeds, and morals. These values are important to guide the use of AI, so that the technology is not used carelessly or for purposes that deviate from the essence of science.

4. The Need for a Multidisciplinary Approach

Studies on the role of AI in transforming knowledge in Muslim societies cannot be conducted in isolation. A multidisciplinary approach is needed, combining perspectives from technology, education, theology, sociology, and ethics. This approach will help more comprehensively explain how AI shapes ways of thinking, learning, and interpreting religious teachings in the contemporary context. Previous research has shown that without a holistic approach, the application of AI in the Islamic world can lead to disorientation and the misuse of information sources that are not validated by Islamic law and science.

3.Methodology

This research is a qualitative study with a multidisciplinary approach that combines perspectives from the fields of information technology, Islamic education, the sociology of religion, and scientific ethics. The aim of this approach is to explore in depth the dynamics of knowledge transformation in Muslim societies as a result of the application of Artificial Intelligence (AI) in various social and religious contexts. This research relies on library research and content analysis methods, by reviewing various relevant scientific literature, including academic journals, research reports, and policy documents related to the use of AI in education and religious life. The data sources used consist of primary data in the form of recent scientific articles on AI in Islamic education, digital da'wah, tafsir, and technology ethics, as well as secondary data such as

classic Islamic books, education policy reports, and statistical data on AI use by Muslim communities. Data collection was carried out through systematic searches in various scientific databases such as Google Scholar, DOAJ, and Garuda, with selection based on keywords such as Artificial Intelligence, Muslim society, knowledge transformation, Islamic education, and digital scientific ethics. The data obtained were then analyzed using thematic analysis techniques to identify thematic patterns related to the shift in knowledge authority, the digitalization of Islamic teachings, and the ethical and normative impacts of AI use on Muslim religious practices.

4. Results and Discussion

1. Potential and Benefits of AI in Knowledge Transformation

The integration of Artificial Intelligence (AI) in Islamic education makes a significant contribution to strengthening the process of transforming Muslim knowledge. One of its primary benefits is AI's ability to deliver personalized learning, where the material, pace, and delivery method can be tailored to the characteristics and needs of each student. In the context of Islamic Religious Education (PAI), this is reflected in the provision of interactive materials, adaptive modules, and automated feedback systems that encourage more effective learning and adapt to students' learning styles. A study in Mauriduna confirmed that AI can accelerate the evaluation process and increase the relevance of teaching materials (Mauriduna, 2023). Furthermore, AI also contributes to the efficiency of educational management, particularly in data processing, automated assessment, and structured, information-based curriculum management. Through this approach, Islamic educational institutions can strengthen their administrative systems quickly and accurately, as emphasized in the IAI Faqih Asyari journal that AI supports data-driven educational systems and automated evaluation (Nasihuddin, 2023). Equally important, AI also has the potential to instill Islamic values through more contextual and character-based educational content, such as honesty, empathy, and responsibility. A study published in the Arraayah e-Journal states that AI-based content developed with Islamic ethics can strengthen the internalization of Islamic values in the educational process (Hadziq et al., 2023).

2. Challenges and Obstacles.

Although the integration of Artificial Intelligence (AI) into Islamic education offers significant potential for improving the quality of learning, its implementation still faces several fundamental challenges. One major obstacle is the infrastructure gap, particularly in remote areas, characterized by limited internet access, a lack of technological devices, and a lack of adequate technical support (Nasihuddin, 2023). Furthermore, limited digital competency among educators, particularly Islamic Religious Education (PAI) teachers, is another inhibiting factor. Many educators lack the technical skills to optimally utilize AI or the ethical understanding needed to incorporate Islamic values into the technology (Hadziq et al., 2023). Another crucial challenge is ethical issues, such as bias in algorithms, issues of student data privacy, and the risk of presenting content that is inconsistent with Islamic principles without adequate oversight. In addition, the lack of comprehensive regulations and normative frameworks based on maqāṣid al-syarī'ah creates a void in the application of AI in Islamic education environments, which has the potential to disrupt the consistency and integrity of value-based scientific development (Rumah Jurnal UIN Datokarama Palu, 2023).

3. Multidisciplinary Implications

In multidisciplinary studies of the context of Islamic education, Artificial Intelligence (AI) opens up significant opportunities for methodological innovation by shifting the teacher's role from a sole authority to a facilitator or moderator, while enabling more interactive and adaptive presentation of learning materials, as well as formative and ongoing evaluation based on individual data (Hadziq et al., 2023). From a technological perspective, particularly in computer science and AI, the development of models sensitive to Islamic culture, language, and context is crucial, such as the application of Natural Language Processing (NLP) to religious texts, the creation of Islamic chatbots, and recommendation systems that respect religious norms (Nasihuddin, 2023). Ethically and theologically, the integration of AI must uphold the principles of scholarly adab (ethics), maqāṣid al-syarī'ah (objectives of Islamic law), the authenticity of Islamic sources, and moral values, without allowing AI to replace humans in interpretations that require ijtihad or blur the boundaries between text, interpretation, and culture (Rumah Jurnal UIN Datokarama Palu, 2023). Furthermore, from a cultural sociology perspective, the application of AI is expected to change the way Muslim communities access and interact with knowledge, making it faster and more accessible. However, it also poses the risk of losing the richness of local and traditional nuances if foreign content and methods become too dominant.

5.Conclusion

Artificial Intelligence (AI) holds enormous potential to transform Islamic knowledge and education by providing more personalized, interactive, and data-driven learning, as well as optimizing educational management. However, its successful implementation depends heavily on infrastructure readiness, educator competence, and strict ethical oversight to uphold Islamic values and prevent algorithmic bias. Furthermore, the development of AI technology must consider cultural sensitivity and the principles of maqāṣid al-shari'ah (obligatory objectives of Islamic law), while clear and comprehensive regulations are urgently needed to ensure the harmonious integration of AI within the context of Islamic education and Muslim society at large.

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