

## Implementing Artificial Intelligence in Islamic Education Management in the Society 5.0 Era

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### ABSTRACT

The development of Artificial Intelligence (AI) technology in the Society 5.0 era presents new opportunities and challenges for Islamic educational institutions. AI not only serves as a technological instrument but is also capable of playing a role in supporting educational management, both in planning, organizing, implementing, and evaluating. The research method used is library research with a qualitative approach. Data was collected thru a literature review of books, scientific journals, and other reliable sources relevant to the research topic. The data was then analyzed descriptively and analytically to gain a comprehensive understanding of AI's contribution to Islamic education management. The research results indicate that AI in planning helps design adaptive and needs-based curricula; in organization, AI facilitates human resource mapping and task distribution; in implementation, AI supports interactive, personalized, and data-driven learning; and in evaluation, AI can provide objective and comprehensive analysis of academic and character achievement.

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## INTRODUCTION

The development of digital technology has brought the world into the era of Society 5.0, a concept coined in Japan in 2016 that emphasizes the harmonious integration of advanced technology with human life. (Keidanren, 2016) In the context of education, especially Islamic education, Society 5.0 demands a transformation in management in order to remain relevant to the needs of the times.

One of the key technologies in this era is Artificial Intelligence (AI). AI can assist in the educational management process, from analyzing student needs, managing academic data, to personalized adaptive learning systems. (Wayne Holes, Maya Bialik, & Charles, 2019) However, on the other hand, there are ethical and spiritual challenges, such as the potential dehumanization of education, technological dependence, and conflicts with Islamic values.

The use of artificial intelligence (AI) technology has become an urgent need to improve the quality of individuals, including schools. Inevitably, all elements must be able to adapt, where teaching and learning activities are no longer always carried out face-to-face (offline), but rather emphasize distance learning (online) that tends to utilize technology, especially information technology as a medium. The world of education is in dire need of innovation and creativity in the learning process. The development of artificial intelligence in education can assist daily activities, including teaching and learning. (Luh Putu Ary, Putu Satya, Made Santo Gitakarma, 2022)

In the education system, AI can improve the efficiency and effectiveness of the education system through various methods, such as adaptive learning models, predictive analytics, natural language processing, intelligent guidance systems, and gamification. It is very likely that artificial intelligence (AI) will continue to develop over time. This is because AI has enormous potential to optimize and improve various aspects of human life, including in the field of education.

Based on this, this paper aims to analyze the implementation of AI in Islamic education management in the Society 5.0 era, as well as how Islamic values can become an ethical foundation for its use.

## LITERATURE REVIEW

### **The Effect Of Artificial Intelligence Technologies On Audit Evidence**

(Al-Sayyed SM, Al-Aroud SF, and Zayed LM, 2018) Research that has been conducted in Jordan. This research uses quantitative research design techniques. Researchers will be able to see the correlation between research variables using quantitative study designs. This will also allow researchers to determine with certainty whether one concept or idea is better than another. The results of this study are that although Artificial Intelligence (AI) offers promising future prospects, most researchers and organizations must adopt the necessary skills and knowledge. The researchers' findings highlight the need to evaluate how AI can change audit evidence. Understanding how AI will affect audit evidence for skills and knowledge development is the driving force behind this project. Furthermore, the research findings show that expert systems have an impact on audit evidence. Artificial neural network technology does not have a significant

impact on audit evidence. The study recommends that audit firms operating in Jordan increase their interest in artificial intelligence technology due to its scientific importance in improving the collection of audit evidence.

### **Artificial Intelligence (AI) in Accounting & Auditing: A Literature Review**

Research conducted by Hasan AR. (2022) in Bangladesh explains that artificial intelligence tools such as spreadsheets and databases are only useful if people know how to use them to simplify business processes. Accountants and auditors cannot be replaced by artificial intelligence in terms of training creativity and human judgment. Technological, regulatory, and economic shifts will continue to challenge historical approaches and professional mindsets, which is a positive development. Market responses to these changes will ultimately influence how audits are conducted. Accountants and auditors must be able to respond quickly to changes in user demands and the creation of new and evolving organizational performance metrics beyond traditional financial statements. Centralization and standardization are necessary as the auditing profession shifts from an apprenticeship model to one with deeper specialization. Accountants and auditors will experience a resurgence in the coming decades, with great opportunities for individuals entering the profession to drive innovation and progress.

### **The use of artificial intelligence technology in the process of Financial auditing: challenges and opportunities.**

The research conducted by (Althin Y, Ilmi B, Jamaris E. 2023) on Information for this study came from in-depth interviews and was a descriptive qualitative study. According to the findings of this study, the accounting profession has undergone significant transformation as a consequence of the widespread use of cutting-edge technologies such as Big Data, Machine Learning, and Artificial Intelligence. Accounting data must be more accurate and less biased, accounting processes must be reengineered, accounting efficiency must be improved, and the accounting career structure must be rethought. With top accounting firms employing accounting professionals (practitioners, educators, and students), we can expect them to overcome these new challenges, gain a deeper understanding of technology, and create more effective accounting practices in the face of widespread integration and convergence of AI and accounting technology.

### **METHODOLOGY**

This study uses a descriptive qualitative method with a library research approach. Data was obtained from books, national and international journals, and digital sources relevant to the themes of AI, Society 5.0, and Islamic education management. The analysis was conducted using a descriptive-analytical model, which describes the phenomenon and then analyzes it based on Islamic education management theory.

## RESEARCH RESULT

The use of artificial intelligence (AI) technology in Islamic education presents challenges and opportunities that must be considered. One of the main challenges is how religion can adapt to the increasingly dominant role of AI in society, while still maintaining its authenticity and values. Second, dependence on AI technology can cause students to lose the ability to reflect and think critically independently, which is an important aspect of Islamic religious education. Third, privacy policies are a concern because the collection and use of student data by AI systems can raise concerns about the privacy and security of students' personal data. In addition, philosophical and theological questions arise about human nature, the purpose of life, and Islamic values that may conflict with the potential of AI, so it is important to ensure that the use of AI does not violate Islamic teachings. Furthermore, it is important for teachers to convey a correct and balanced understanding of AI, as well as teach how to use it in accordance with Islamic principles.

## DISCUSSION

The development of artificial intelligence (AI) technology has penetrated various areas of life, including education. Islamic education, as part of the national education system, has also been affected by this digital transformation. AI has great potential in supporting Islamic education planning, both in terms of curriculum, education management, and personalized learning for students. Through AI, big data related to the needs, abilities, and interests of students can be analyzed to design a more effective and adaptive learning system in accordance with Islamic principles.

One of the implementations of AI in Islamic education planning is the use of an AI-based Learning Management System. This system is able to assist education managers in designing teaching strategies that suit the needs of students. For example, by analyzing the learning patterns of students in data-based Islamic boarding schools, the system can recommend the most appropriate learning approaches, such as memorization (*tahfidz*), comprehension (*tafsir*), or digital discussions of classical Islamic texts. This certainly supports efficiency and effectiveness in planning Islamic learning that is more personalized and focused.

In addition, AI can also be applied in the assessment and evaluation of Islamic education curricula. Natural Language Processing (NLP) technology in AI enables analysis of Islamic texts, whether from the Qur'an, hadith, or classical books. Thus, curriculum designers can ensure the integration of Islamic values in every subject that is compiled. AI can also be used to detect the suitability of material with sharia principles and identify material that is irrelevant or needs to be revised (Yusuf & Rahmah, S. 2021).

Furthermore, AI plays a role in strategic decision-making in Islamic educational institutions, such as madrasas and Islamic boarding schools. For example, by processing statistical data on student numbers, economic backgrounds, and academic achievements, AI can help institution leaders develop more equitable and targeted policies. This approach is in line with Islamic values that emphasize justice (*'adl*) and *maslahat* (public good) in all aspects of life, including in the world of education (Hasan, L. 2023).

Thus, the implementation of AI in Islamic education planning not only strengthens managerial efficiency and teaching quality but also opens up great opportunities for learning innovations that remain based on Islamic values. However, its application still needs to be closely monitored so as not to violate the ethical boundaries and sharia values that are the main foundation of Islamic education.

The following are several ways used in shaping the Implementation of Artificial Intelligence in Islamic Education Management in the Society 5.0 Era, including

### **1. Implementation of AI in the Organization of Islamic Education**

The development of artificial intelligence (AI) technology has provided new opportunities in organizational management, including in the context of Islamic educational institutions. In the process of organizing Islamic education, AI plays an important role in structuring institutions, managing human resources (HR), and automating various administrative processes that were previously done manually. With the support of AI, organization can be carried out more efficiently, accurately, and adaptively to the challenges of the times. (Zaini, M, 2022).

One of the concrete implementations of AI in the organization of Islamic education is in the HR management system. AI can be used to manage databases of teachers, educational staff, and students in madrasas, Islamic boarding schools, and Islamic universities. Through this technology, the system can automatically group human resources based on competence, performance, and professional development needs. This greatly assists institutional leaders in structuring organizations that align with the potential and functions of each individual within the framework of the Islamic education mission. (Hidayat, R., & Salsabila, N. 2021)

In addition, AI can also be applied in managing teaching and learning schedules, distributing teaching assignments, and monitoring teacher performance. By utilizing machine learning algorithms, AI is able to analyze historical data to compile optimal schedules and avoid time overlaps. In fact, AI can provide recommendations for improving the structure of Islamic education based on an analysis of student needs, learning trends, and the effectiveness of teaching in an Islamic values-based curriculum. (Syamsuddin, A. 2023).

The use of chatbots and AI-based information systems has also begun to be implemented in Islamic educational institutions to regulate internal and external communications. For example, virtual assistants help students and parents obtain academic information, exam schedules, and administrative consultations. These facilities accelerate the flow of information within educational organizations and increase the satisfaction of education service users. (Nurhayati, L. 2020) Thus, the organizational process becomes more dynamic, structured, and responsive to the needs of the times, while remaining based on Islamic principles such as justice, openness, and trustworthy service.

However, there needs to be clear policies and regulations in the implementation of AI so as not to cause algorithmic bias, technological access inequality, and data privacy violations. Islamic educational institutions need to align the use of AI with ethics and sharia values so that its use is not only technologically advanced, but also beneficial and beneficial.

## 2. Implementation of AI in the Implementation of Islamic Education

The implementation of artificial intelligence (AI) in Islamic education has brought about various innovations that improve the quality and efficiency of the learning process. AI offers a range of tools that can support teaching in Islamic educational institutions, whether at the madrasah, Islamic boarding school, or Islamic university level. In this context, AI is not only used to simplify administration, but also to create a more personalized, interactive learning experience that is tailored to the needs and abilities of each student. (Karim, I., & Hendra, S. 2021)

One form of AI application in Islamic education is through AI-based learning platforms that adapt learning methods to the characteristics of individual students. For example, AI can utilize data on students' learning methods, comprehension speed, and learning styles to adjust teaching materials. In the context of Islamic education, AI can be used to personalize the teaching of the Qur'an, hadith, tafsir, and fiqh, taking into account the specific needs of each student, such as in memorization (tahfidz) learning, which requires an individual approach. (Anwar, Z., & Fadillah, S. 2020). This allows students to receive material in the most effective way according to their capacity.

In addition, AI also enables the use of chatbots or virtual assistants to provide academic support to students. These assistants can help answer questions related to Islamic religious material, such as the interpretation of Qur'anic verses, or provide explanations about Islamic law. The application of this technology not only makes it easier for students to obtain information quickly, but also provides 24/7 access, thereby supporting more flexible learning. These virtual assistants can also provide recommendations related to readings, hadiths, and Islamic sources relevant to the topic being studied. (Syukri, A., & Rauf, M. 2023).

The use of AI in Islamic education also has the potential to improve the quality of learning evaluation and assessment. With AI, teachers can access more complete data on each student's progress, both in terms of memorization, conceptual understanding, and critical thinking skills. AI-based systems can analyze student test or assignment results more objectively, quickly, and comprehensively. This more detailed and data-driven assessment allows teachers to provide more constructive feedback tailored to each student's needs. (Nuryani, L., & Sari, R. 2022).

However, even though AI brings many benefits to the implementation of Islamic education, challenges remain, especially in terms of applying technology in accordance with sharia principles. For example, the use of algorithms in teaching must ensure that the material presented is based on

authentic Islamic teachings and does not conflict with Islamic values. Therefore, strict supervision and regulation of the use of AI in Islamic educational institutions needs to be implemented to ensure that this technology is used wisely and in accordance with Islamic ethics. (Arifin, M. 2023).

### **3. The Implementation of AI in Islamic Education Evaluation**

The implementation of Artificial Intelligence (AI) in the evaluation of Islamic education management is a strategic step in improving the quality of educational institution management. Evaluations that are usually carried out manually often take a long time and are prone to subjective bias. With the help of AI, the evaluation process can be carried out more quickly, objectively, and based on real data so that the results are more accurate and can be used as a basis for making the right decisions by Islamic education management (A. H. Ramdhani, 2021).

One form of AI implementation is the use of an analytical system capable of comprehensively processing data on students, educators, and the curriculum. This data is then processed into evaluative reports that display achievement trends, weaknesses, and recommendations for improvement. Thus, management can monitor the effectiveness of the Islamic-based curriculum and ensure alignment between academic goals and the spiritual values promoted. (S.M.Al-Khalifa, 2020).

In addition, AI can also assist in evaluating non-academic aspects, such as character building, discipline, and student participation in religious activities. Through pattern recognition and behavioral analysis technology, AI is able to provide a complete picture of the character development of students. This is very important in Islamic education, because success is not only measured by cognitive aspects, but also by the success in shaping Muslim individuals with good character. (Fahrudin Faiz, 2021).

Furthermore, the application of AI in the evaluation of Islamic education management supports transparency and accountability. The evaluation results generated by the AI system can be used as a basis for institutional leaders to formulate development policies, improve the quality of educational services, and maintain teaching quality in accordance with Islamic education standards. Thus, AI is not only a technical tool but also a strategic instrument to ensure that the quality of Islamic education remains relevant in the digital era (M. Yusuf & A. Hamzah, 2022).

## **CONCLUSIONS AND RECOMMENDATION**

The implementation of Artificial Intelligence (AI) in Islamic education management in the era of Society 5.0 is a strategic necessity to improve the quality and competitiveness of education. In terms of planning, AI helps design curricula and programs that are more adaptive to the needs of students and the times. In terms of organization, AI facilitates the mapping of human resources and effective task distribution, thereby creating an efficient and transparent institutional structure.

In the implementation stage, AI supports the creation of interactive, personalized learning processes that are tailored to the characteristics of students. Meanwhile, in evaluation, AI provides objective and comprehensive analysis of learning achievements, educator performance, and student moral development. Thus, AI can be a strategic partner in delivering modern, high-quality Islamic education that remains grounded in spiritual values. The following are several ways to implement Artificial Intelligence in Islamic Education Management in the Society 5.0 Era, including:

- 1) Implementation of AI in the Organization of Islamic Education**
- 2) Implementation of AI in the Implementation of Islamic Education**
- 3) The Implementation of AI in Islamic Education Evaluation.**

The use of artificial intelligence (AI) technology has become an urgent necessity to improve the quality of individuals, including schools. Inevitably, all elements must be able to adapt, where teaching and learning activities are no longer always carried out face-to-face (offline), but rather emphasize distance learning (online) that tends to utilize technology, especially information technology as a medium. The world of education is in dire need of innovation and creativity in the learning process. With the development of artificial intelligence in education, it can help with daily activities, including teaching and learning.

Several studies show that AI has great potential to change management and learning processes in Islamic educational institutions. AI enables more adaptive and personalized learning according to individual needs, through personalization algorithms and in-depth data analysis, and can help teachers manage and analyze student data automatically, making the interpretation of student performance more efficient.

Technology infrastructure and literacy are still limited, especially in Islamic educational institutions that are not yet digitally ready. In a case study on the implementation of digital technology-based Islamic religious education to address the challenges of Society 5.0, the main obstacles include inadequate infrastructure and low technological skills among teachers. Thus, the implementation of AI in Islamic education planning not only strengthens managerial efficiency and teaching quality but also opens up great opportunities for learning innovation that remains grounded in Islamic values.

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