



## **IMPLEMENTATION OF 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 functions as a technological instrument but can also play 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 through a literature review from books, scientific journals, and other reliable sources relevant to the research theme. The data was then analyzed descriptively-analytically to obtain a comprehensive understanding of AI's contribution to Islamic education management. The research results show that AI in planning helps design adaptive curricula that meet student needs; in organizing, 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 moral achievements.

*Keywords: Artificial Intelligence, Islamic Education Management, Society 5.0*

### **INTRODUCTION**

The development of digital technology has brought the world into the era of Society 5.0, a concept initiated 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 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 managerial process, from analyzing student needs, managing academic data, to personalized adaptive learning systems. (Wayne Holesmes, 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. All elements must

adapt, where teaching and learning activities are no longer always carried out face-to-face (offline), but rather emphasize distance learning (online) which tends to utilize technology, especially information technology as a medium. The world of education desperately needs innovation and creativity in the learning process. The development of artificial intelligence in education can help 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 analysis, natural language processing, intelligent guidance systems, and gamification. It is highly 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, and how Islamic values can be an ethical foundation for its use.

## **RESEARCH METHOD**

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

## **RESULTS AND DISCUSSION**

### **Implementation of AI in Islamic Education Planning**

The development of artificial intelligence (AI) technology has permeated various aspects of life, including the world of education. Islamic education, as part of the national education system, is also not exempt from the impact of 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 students' needs, abilities, and interests can be analyzed to design a more effective and adaptive learning system in accordance with Islamic principles.

One implementation of AI in Islamic education planning is the use of an AI-based Learning Management System. This system can help education managers design teaching strategies that suit the needs of students. For example, by analyzing the learning patterns of students in pesantren based on data, the system can recommend the most appropriate learning approach, such as memorization (tahfidz), comprehension (tafsir), or digital yellow book discussions. This certainly supports efficiency and effectiveness in planning more personalized and directed Islamic learning. (Khairuddin, 2022)

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 the content 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 compiled. AI can also be used to detect the suitability of material with sharia principles and identify material that is less relevant or needs to be revised. (Yusuf & Rahmah, S. 2021).

Furthermore, AI plays a role in strategic decision-making in Islamic educational institutions, such as madrasahs and pesantren. For example, by processing statistical data on student numbers, economic backgrounds, and academic achievements, AI can help institutional leaders formulate policies that are fairer and more targeted. This approach aligns with Islamic values that emphasize justice ('adl) and maslahah (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 innovation that remains based on Islamic values. However, its application still needs to be strictly monitored so as not to violate ethical boundaries and Sharia values, which are the main foundation of Islamic education.

### **Implementation of AI in Organizing Islamic Education**

The development of artificial intelligence (AI) technology has opened up 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 institutional frameworks, managing human resources (HR), and automating various administrative processes that were previously carried out manually. With AI support, organization can be done more efficiently, accurately, and adaptively to the challenges of the times. (Zaini, M, 2022).

One real implementation of AI in the organization of Islamic education is in human resource management systems. AI can be used to manage databases of teachers, educational staff, and students in madrasahs, pesantren, 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 organizational frameworks that align with the potential and functions of each individual within the mission of Islamic education. (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 can analyze historical data to create optimal schedules and avoid time overlaps. In fact, AI can provide recommendations for improving the organizational structure of education based on an analysis of student needs, learning trends, and teaching effectiveness in a curriculum based on Islamic values. (Syamsuddin, A. 2023).

The use of chatbots and AI-based information systems has also begun to be implemented in Islamic educational institutions to manage internal and external communication. For example, virtual assistants help students and parents get

academic information, exam schedules, and administrative consultations. This facility accelerates the flow of information within educational organizations and increases the satisfaction of educational service users. (Nurhayati, L. 2020) Thus, the organizing process becomes more dynamic, structured, and responsive to the needs of the times, while still based on Islamic principles such as justice, openness, and trustworthy service.

Nevertheless, clear policies and regulations are needed in the implementation of AI to avoid algorithmic bias, technological access inequality, and data privacy violations. Islamic educational institutions need to align the use of AI with ethical and sharia values so that its use is not only technologically advanced but also blessed and beneficial.

### **Implementation of AI in the Implementation of Islamic Education**

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

One application of AI in Islamic education is through AI-powered learning platforms that adapt teaching methods to the individual characteristics of students. For example, AI can utilize data on students' learning styles, comprehension speed, and learning preferences to customize 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 individualized approach. (Anwar, Z., & Fadillah, S. 2020). This allows students to receive material in the most effective way according to their capabilities.

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 interpretations of Quranic verses, or provide explanations of Islamic laws. The application of this technology not only makes it easier for students to get information quickly, but also provides 24/7 access, thus supporting more flexible learning. These virtual assistants can also provide recommendations related to readings, hadith, 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 exam results or assignments more objectively, quickly, and thoroughly. This more detailed and data-driven assessment allows teachers to provide more constructive feedback tailored to the needs of each student. (Nuryani, L., & Sari, R. 2022).

However, even though AI brings many benefits to the implementation of Islamic education, challenges remain, especially regarding the application of technology that aligns with sharia principles. For example, the use of algorithms in teaching must ensure that the material delivered remains based on authentic Islamic teachings and does not contradict Islamic values. Therefore, strict supervision and regulation of AI use in Islamic educational institutions need to be implemented to ensure that this technology is used wisely and in accordance with Islamic ethics. (Arifin, M. 2023).

### **Implementation of AI in the Evaluation of Islamic Education**

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

One form of AI implementation is the use of analytical systems capable of processing student, educator, and curriculum data comprehensively. This data is then processed into evaluative reports that show 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 development, discipline, and student participation in religious activities. Through pattern recognition technology and behavioral analysis, AI can provide a complete picture of students' character development. This is very important in Islamic education, as success is not only measured by cognitive aspects, but also by the success of forming a Muslim individual with noble 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 the quality of teaching 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).

### **CONCLUSION**

The implementation of Artificial Intelligence (AI) in the management of Islamic education in the Society 5.0 era 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 the effective division of tasks, thereby creating an efficient and transparent institutional structure.

During implementation, AI supports the creation of interactive, personalized learning processes tailored to the characteristics of each student. Meanwhile, in evaluation, AI provides objective and comprehensive analysis of learning outcomes, 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.

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