

Optimizing Artificial Intelligence in Islamic Education: Opportunities and Challenges in Learning Evaluation

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ABSTRACT

In the digital transformation era, artificial intelligence (AI) has become a key innovation in education, including in the evaluation of Islamic Religious Education (IRE). This study aims to analyze the optimization of AI implementation in IRE evaluation, identify the challenges encountered, and explore its future potential. Using a qualitative approach based on a literature review of 35 national and international sources from Scopus, DOAJ, and Google Scholar, the findings indicate that AI enhances the effectiveness of cognitive aspect evaluation through digital quizzes and real-time data analysis. AI has also begun to expand into affective and psychomotor assessments through technologies such as chatbots, facial recognition, and virtual reality. However, several challenges persist, including AI's limitations in assessing spiritual dimensions, potential algorithmic bias, ethical and data privacy issues, and the readiness of teachers and Islamic education infrastructure. In the future, AI holds the potential to become a comprehensive and personalized evaluation tool if developed ethically, grounded in sharia values, and maintaining the teacher's central role in character and spiritual development.

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1. Introduction

The orientation of Islamic education is to focus on personal development to achieve what is known as *insan kamil*. A person who achieves the degree of *kamil* is a holistic achievement, which in this case not only includes religiosity and spirituality, but also skills, ethics and morals, as well as balanced intellectual abilities [1]. Religiousness and spirituality are efforts to approach Allah and purify the soul in the context of *ma'rifatullah*. The skills possessed are useful as provisions for life and interaction in the community. Morals and ethics shape character; intellectuals are needed to

nurture a person's mind and understanding. Comprehensive Islamic education seeks to combine all these aspects.

The success of education in achieving these goals is seen after evaluating the educational process itself. In this case, evaluation is important as a barometer of the achievement of educational programs. The rapidly developing digital world significantly impacts the continuity of the educational process. This digital transformation has encouraged educational institutions to adapt quickly, not only in terms of teaching methods, but also in terms of how learning is evaluated. The digital world has shifted the traditional and static evaluation model to a dynamic and adaptive one that focuses on student development.

One emerging technology that can solve these challenges is the application of Artificial Intelligence (AI) in educational evaluation. AI based educational evaluation enables the collection and analysis of large amounts of data, as well as the application of sophisticated algorithms to generate deeper insights into various aspects of education, from student behavior to teaching performance.

According to Holmes, Maya, and Fadel, AI enables more personalized learning and allows teachers to understand students' strengths and weaknesses more deeply through real time analysis of learning data [2]. This certainly presents a great opportunity to evaluate learning more effectively, especially in cognitive aspects, such as understanding Islamic concepts, mastery of Fiqh, Aqidah, and Islamic History. AI also enables objective and rapid assessment, such as in the form of digital quizzes, automatic answer analysis, and periodic tracking of learning achievement levels.

However, Islamic religious education's characteristics, including cognitive, affective, and psychomotor aspects, present their own challenges for the comprehensive application of AI. Evaluation in Islamic religious education assesses mastery of knowledge and the formation of students' religious values, attitudes, and behavior. To what extent can AI capture and assess affective dimensions such as sincerity, perseverance in worship, or spiritual integrity? Furthermore, is AI capable of evaluating psychomotor skills in the context of religious practices, such as the procedures for wudu, salat, and reading the Qur'an with correct tajwid?

Sholeh, Rusydiyah, and Abu Bakar explain that AI can assist in cognitive evaluation through digital quizzes and tests, while for affective and psychomotor aspects, AI is beginning to develop through the use of Chatbots, Face Recognition, and VR/AR Technology [3]. These technologies enable teachers to monitor students' expressions, recognize emotions, and provide simulations of religious practices in a digital environment. However, this approach has not been able to completely replace the central role of teachers in shaping character and providing moral examples.

On the other hand, the use of AI in Islamic religious education is not without some ethical, pedagogical, and technical issues. Fitriani warns that over-reliance on AI can weaken students' critical thinking skills and reduce the social-spiritual relationship between teachers and students. In addition, AI systems risk bias because they are built on algorithms and data that are not necessarily completely neutral and in accordance with Islamic values [4]. Data privacy, academic integrity, and the potential for misinformation are also serious concerns in its implementation.

Furthermore, another major challenge lies in educators' readiness and Islamic education infrastructure. Many Islamic education teachers still face obstacles in utilizing digital technology due to a lack of training or limited facilities. This has led to a digital divide between regions, impacting the quality of Islamic education nationwide [5].

Nevertheless, the future potential of AI remains promising. AI can be used to detect students' emotions in real-time, conduct affective evaluations through digital engagement analysis, and detect academic honesty [6]. All of this shows that AI is not just a technical tool, but can be developed into a more humane and spiritual evaluation system, provided there is close collaboration between technology developers, educators, and Sharia experts. With these challenges and opportunities, the discussion on optimizing AI in evaluating Islamic religious education learning is becoming increasingly urgent. This study seeks to critically examine the trends in the application of AI in Islamic religious education evaluation according to current literature, evaluate the extent of its optimization,

and describe the challenges and future potential of AI integration in the field of Islamic education. This research focuses on the context of Islamic religious education in Indonesia, particularly at the secondary and higher education levels, so that the study results reflect the characteristics, challenges, and opportunities of the national Islamic education system amid digital transformation.

1.1. Definition of Educational Evaluation

The word evaluation literally comes from the English word evaluation, in Arabic *al-taqdir*, which in Indonesian means assessment. The root word is "value," which is *al-qimah* in Arabic and means "nilai" in Indonesian. Therefore, education evaluation (*al-taqdir al-tarbawiy*) can be literally interpreted as assessment in (the field of) education or assessment of matters related to educational activities [7]. Evaluation in general can be defined as a systematic process to determine the value of something (goals, activities, decisions, performance, processes, people, or objects) based on certain criteria. Evaluation is not merely a set of techniques, but a continuous process that underlies all good learning activities [8]. Another opinion also states that evaluation is the process of collecting data or information about an object systematically and continuously to determine the quality related to the value and meaning of something, based on certain criteria, standards, and indicators, in order to make a final decision [9].

1.2. Islamic Religious Education Learning

Implementing learning is a learning process or an activity of conveying information from teachers to students [10]. According to Law Number 20 of 2003, learning is carried out through interaction between educators and students using learning resources in the learning environment as a teaching and learning process. The teaching and learning process interacts with normative value with objectives, where teachers adhere to the applicable rules and guidelines in schools to implement learning. Islamic education can be defined as learning conducted by an individual or educational institution that provides material on Islam to people who want to know more about Islam, both in terms of academic material and in terms of practices that can be carried out daily [11]. Islamic education basically aims to guide students to have firm faith and spiritual depth, excellent character, broad knowledge, scientific and technological expertise, and professional maturity. Normatively, Islamic Education in public schools reflects Islamic educational thinking, socialization, internalization, and reconstruction of the understanding of Islamic teachings and values. Practically, PAI aims to develop Muslim personalities with cognitive, affective, normative, and psychomotor abilities, which manifest in how they think, behave, and act in their lives [12]. Another important goal in Islamic religious education is to foster a greater sense of trust in God, the creator of the universe. Another opinion expressed by Athiyah al-abrasyi is that the main and primary objective of Islamic education is to educate character and the soul. Meanwhile, the general objective of religious education is to guide children to become true Muslims, firm in their faith, righteous in their deeds, noble in their character, and useful to society, religion, and the state [13].

1.3. Understanding Artificial Intelligence (AI)

Artificial Intelligence (AI) is a branch of computer science that aims to develop systems and machines capable of performing tasks that normally require human intelligence. AI uses algorithms and mathematical models to enable computers and other systems to learn from data, recognize patterns, and make intelligent decisions. In the context of AI, there are several important concepts, such as machine learning, neural networks, natural language processing, and many more [14]. The development of AI has had a major impact in various fields such as voice recognition, facial recognition, autonomous cars, medicine, and many more [15]. Artificial Intelligence (AI) has become a game changer in many industries, including education. Combined with educational data, AI algorithms can provide powerful insights and revolutionize how educators understand and utilize information [16]. Adapting Artificial Intelligence to the world of education has enormous potential as technology advances. This empowers educators to provide personalized, adaptive, and engaging learning experiences while offering valuable insights that shape pedagogical practices [17].

2. Method

This study uses a qualitative approach with a library research method. This approach was chosen because it is suitable for exploring a deep and comprehensive understanding of the concept and role of artificial intelligence (AI) in evaluating Islamic religious education, particularly in the theoretical and conceptual context [18]. The literature study collected data from various written sources, such as books, scientific journal articles, proceedings, research reports, and relevant policy documents [19]. The literature used was selected based on its relevance to the research topic and the credibility of the sources, and was obtained through online database searches and university libraries. The collected data were analyzed qualitatively using a descriptive-analytical approach by examining and interpreting the contents of various sources to obtain a comprehensive understanding of the research topic [20]. The researchers identified themes, mapped concepts, and synthesized ideas to produce conclusions relevant to the research objectives [21]. To ensure the validity and accuracy of the findings, source triangulation was conducted by comparing various perspectives and findings from diverse literature. Thus, the results of this study are expected to provide theoretical contributions to the development of AI based learning evaluation concepts in Islamic education.

3. Results and Discussion

3.1. Islamic Perspectives and Ethics Related to Evaluation in Learning

The Qur'an and hadith provide a solid normative foundation for the concept of educational evaluation in Islam. These two main sources of Islamic teachings emphasize the importance of balance between worldly and spiritual aspects, between academic knowledge and spiritual character building. Thus, educational evaluation in Islam is not only oriented towards the mastery of cognitive knowledge, but also assesses the extent to which this knowledge can be applied in real life to create benefits for oneself, one's family, society, and humanity as a whole. Evaluation in Islam is a measure of educational success and a means of developing attitudes, ethics, social responsibility, and a deeper spiritual awareness [22].

The Islamic view of education places evaluation as one of the most important components in the process of forming a complete human being [23]. Education in Islam is seen as a comprehensive and integral process, covering intellectual, emotional, moral, and spiritual dimensions [14]. Therefore, evaluation must be designed to balance these various dimensions. Not only does it assess cognitive achievements, evaluation is also directed at forming noble character, strengthening values of faith, and improving the quality of human relationships with God and with one another. In other words, evaluation in Islam not only functions as a tool for measuring educational achievement, but also as a means to achieve higher educational goals, namely the formation of people who are faithful, knowledgeable, and noble people. evaluation in Islam is not merely a measurement of learning outcomes, but also as a tool for assessing the development of character and the relationship of a person with their God.

In the Qur'an, educational evaluation plays an important role in human life. The Qur'an pays special attention to the importance of evaluation in all things, including self-evaluation, the learning process, and educational outcomes. The Qur'an teaches that humans must constantly self-reflect or muhasabah in various aspects of their lives. As stated in Q.S. Al-Hasr verse 18:

يَا أَيُّهَا الَّذِينَ آمَنُوا اتَّقُوا اللَّهَ وَلْتَنْظُرْ نَفْسٌ مَّا قَدَّمَتْ لِغَدٍ وَاتَّقُوا اللَّهَ إِنَّ اللَّهَ خَبِيرٌ بِمَا تَعْمَلُونَ

“O you who believe, fear Allah and let every soul look to what it has put forth for tomorrow (the Hereafter). Fear Allah. Indeed, Allah is All-Aware of what you do.”

In this context, fearing Allah in the first statement is linked to every believer's attitude. This attitude requires them to always evaluate their previous deeds, which will become the basis for determining their next actions [24]. Digital transformation in the world of education has encouraged the integration of Artificial Intelligence (AI) technology in various aspects of learning, including student evaluation [25]. In the context of Islamic Religious Education, AI can help teachers measure

learning outcomes, detect weaknesses, and provide more personalized feedback [26]. However, the application of AI also presents ethical problems, such as algorithmic bias, privacy violations, and the dehumanization of the learning process [27].

Islam, as a religion that emphasizes moral and spiritual values, has a set of ethical principles that can be used as guidelines in using technology, including AI. Three main concepts that are relevant are *maṣlaḥah* (public interest), *'adl* (justice), and *amānah* (trust) [28]. By using these principles as a basis, the evaluation of Islamic religious education using AI can be directed towards achieving the objectives of sharia (*maqāṣid al-syarī'ah*), namely bringing benefits to humanity.

The concept of *maṣlaḥah* emphasizes that all policies or actions must bring real benefits and prevent harm [29]. In the context of AI for PAI evaluation, *maṣlaḥah* can be realized through: a. Utilizing AI to improve the quality of Islamic education so that students can more easily understand sharia values. b. Improve teacher efficiency in evaluation so that they can focus more on spiritual guidance. c. Providing equal access to education by utilizing AI as an instrument for equalizing evaluation services, especially in areas that lack Islamic religious education. teachers.

However, excessive use of AI without considering the human aspect (for example, completely replacing the role of teachers) can actually reduce *maṣlaḥah* because religious education requires direct role models. Islam emphasizes justice as the foundation of social life (QS. al-Nahl: 90). AI-based evaluation must ensure no discrimination or bias regarding gender, social status, or academic ability [30]. In Islamic religious education evaluation, *'adl* is reflected in: a) Bias free algorithms: AI must be designed to assess objectively, without favoring certain groups. b) Equal access: students from different backgrounds must have the same opportunity to receive fair assessments. c) Transparency: evaluation results must be accountable and understandable to students and teachers.

If AI is programmed without considering fairness, the evaluation results can lead to educational injustice. *Amānah* in Islam relates to the responsibility of safeguarding and managing something in accordance with Allah's provisions (QS. al-Ahzab: 72). In the context of AI, *amanah* means safeguarding student data, identity confidentiality, and evaluation results. The three aspects of *amanah* in AI-based evaluation are: 1. Data Security: students' personal data must not be misused. 2. Evaluation Transparency: evaluation results must be trustworthy and not manipulated for specific interests. 3. Academic Integrity: AI must support academic honesty, not create opportunities for cheating.

Thus, the principle of *amanah* ensures that AI is used to support the noble goals of Islamic education, not merely as a technical instrument. By integrating *maṣlaḥah*, *'adl*, and *amānah*, AI can be directed as an evaluation tool that is in line with *maqāṣid al-syarī'ah*. In the *maṣlaḥah* concept, AI must provide tangible benefits for students and teachers. Furthermore, in the concept of *'adl*, it must be able to ensure that the evaluation process is fair and free from discrimination. In the concept of *Amanah*, the use of AI must be able to maintain confidentiality, honesty, and responsibility in the use of AI.

3.2. Optimizing Artificial Intelligence (AI) in Islamic Religious Education Learning Evaluation

Rapid technological developments have brought new advances in human life. One such technological development is the existence of artificial intelligence. The use of AI has entered many fields, including education. This has played a significant role in changing the direction of education from traditional classical methods to a more modern approach that is focused, dynamic, and personalized for both teachers and students [31].

In the context of education, AI plays a role in providing and creating personalized learning systems. This personalization provides a new experience that can analyze learning so that teachers can identify the strengths and weaknesses of their students [32]. Through this effectiveness, teachers can accelerate their efforts to address and provide solutions for students who are still struggling with their learning. In addition to personalization in learning, AI makes the learning system more

interesting and interactive, such as using quizzes to evaluate learning. The use of AI in education also has the potential to be an innovative and more effective learning tool and media [33]. This innovation has a positive impact that leads to maximizing student potential.

Artificial intelligence, or AI, that can be used in education is quite diverse. For example, there is a Virtual Tutor that can facilitate students in the learning process. Another form is a Chatbot that can provide speed for students to obtain material while providing specific feedback for each student [3]. This makes it easier for both students and teachers to evaluate and make improvements. Additionally, Virtual Reality technology integrated with AI can also provide students with a new experience in acquiring learning materials [34]. In the context of Islamic Education, for example, students can explore the history of prophethood in the past using this technology.

The development of AI in the world of education is undeniable. The evaluation or assessment process in education covers cognitive, affective, and psychomotor aspects. Despite its rapid progress, the assessment of these three aspects can be aided by AI. For example, in the cognitive aspect, various types of quizzes can be used as an enjoyable and easy evaluation process [3]. Additionally, using virtual tutors integrated with AI can address other aspects, such as facial recognition, which includes expressions and emotions, and voice analysis [35]. This enables teachers to accelerate improvements because students' difficulties are detected early on. Regarding psychomotor skills, training can be conducted using VR or AR. This provides students with direct experience through a more enjoyable and engaging method.

At a minimum, optimizing the implementation of Artificial Intelligence (AI) in education involves several important strategies to improve learning effectiveness and educational management efficiency. First, personalizing learning is a major focus by utilizing AI platforms to tailor material based on students' abilities and needs. For example, using adaptive learning tools and platforms such as Khan Academy can provide relevant lessons based on students' quiz results, creating a more immersive and relevant learning experience.

Second, automated AI assessment can improve student evaluation efficiency and accuracy. AI tools can be used to assess multiple choice or essay questions by providing automatic feedback, such as Grammarly, which helps assess grammar. Automated assessment can reduce teachers' workload and make assessment more objective. Third, creating creative learning materials with AI allows teachers to create more interesting and relevant content. AI technologies such as Canva AI can be used to create visual learning materials, such as infographics for history lessons. Fourth, optimizing school management through the use of AI in educational administration can improve the efficiency and effectiveness of school operations. AI can automate administrative tasks, improve operational efficiency, and assist in data-driven decision making [36].

With the increasingly massive use of AI and the increasingly varied models, both must be optimised so that education does not fall behind the times. This requires cooperation from various parties so that the ideal of equality in advancing the learning and education process can be realized optimally and equitably. This optimization can be done by conducting training for teachers in the use of AI [2]. Additionally, the development and socialization of AI must also be carried out so that teachers and students share a common vision, thereby supporting the optimization of higher quality education [37].

3.3. Opportunities for using AI in Islamic Religious Education Evaluation

The use of AI in education certainly offers some advantages in improving the quality of learning. AI can analyze students' individual needs and abilities, so that learning materials can be tailored to their needs. In addition, AI can automate routine tasks such as assessment and grading, allowing teachers to focus more on teaching and interacting with students [38]. AI also makes it easier for

students to access learning materials and can provide multimedia content, quizzes, and simulations that make students more active in learning.

Although the implementation of AI benefits learning and evaluation in Islamic education, weaknesses or negative impacts need to be considered. First, it can lead to excessive dependence on technology in Islamic learning. Students become too dependent on AI to understand religious concepts and reduce their critical thinking skills. Second, interaction between teachers and students is reduced. The aspects of togetherness, empathy, and personal approach that are necessary in learning may not be fully conveyed through technology. Third, AI systems have the potential for bias because they tend to follow existing data patterns. Fourth, the use of AI also raises concerns regarding student data privacy. Personal information about students collected by AI systems can be misused by unauthorized parties [39].

The use of AI in educational development, especially in Islamic religious education, also raises various complex challenges, both ethically, pedagogically, and philosophically. One of the biggest challenges is the concern that humans will be displaced in the educational process, especially teachers in their role as spiritual guides [40]. In learning and evaluation in Islamic religious education, teachers are not only conveyors of material, but also mentors, moral role models who influence the formation of student's morals and character. When there is a shift in learning towards overly technical and system-based automation, there is a risk of losing the role models, empathy, and emotional warmth that should be present in religious education [41].

AI based content is also not necessarily fully aligned with Islamic values. AI works based on data and algorithms developed by humans, so there is a high possibility of information deviation or bias if the data source is invalid or does not comply with Islamic teachings [4].

Another challenge arises from the readiness of educators and Islamic educational institutions to face the technological revolution. Due to limited training and facilities, many Islamic education teachers still find it difficult to operate digital devices or utilize AI-based learning platforms. This creates a digital divide between teachers and students, impacting learning effectiveness. In some madrasas or Islamic schools, infrastructure limitations such as internet networks, technological devices, and educational software are major obstacles to implementing digital learning. Inequality of access to technology also deepens the educational gap between urban and rural areas, ultimately affecting the quality of Islamic Education nationally.

From a psychological and social perspective, the presence of AI also poses challenges in building values of spirituality and a holistic awareness of religion. Excessive use of technology can lead to an instant lifestyle and reduce the depth of self reflection. Students tend to seek quick answers through search engines or AI applications, without reflecting on the meaning behind religious teachings. Values such as patience, sincerity, trust in God, and self-control are central to Islamic education. It is risk of being eroded by a pragmatic and fast paced digital culture. Religious learning, which should build closeness to God and strengthen the spiritual dimension, can lose its substance if it is only packaged technically and visually [42].

On the other hand, challenges also arise regarding the ethics of data use and student privacy. Many AI based platforms collect and analyze large amounts of user data. If not managed properly, this data has the potential to be misused or exploited by third parties for commercial gain. In Islam, maintaining trust and privacy is important to moral ethics. Therefore, the application of AI in religious education must be accompanied by a strong monitoring system and the principle of prudence to not violate Sharia norms and protect individual rights [43].

The application of artificial intelligence in evaluating Islamic religious education learning offers great potential to strengthen the effectiveness of a more adaptive, comprehensive, and meaningful

assessment process. AI can provide a personalized evaluation approach that adapts to the needs and abilities of individual students. In the context of Islamic religious education learning, which encompasses cognitive, affective, and psychomotor aspects, AI can provide comprehensive assessments through a system that adapts the difficulty level of questions, provides instant feedback, and automatically generates accurate learning outcome reports. This is in line with the findings showing that AI-based evaluation systems can improve learning effectiveness by providing personalized learning experiences [44].

Furthermore, AI enables longitudinal monitoring of student development, not only in cognitive aspects but also in the process of internalizing Islamic values. This technology can observe students' learning patterns, participation in digital religious activities, and affective responses to the material, so that teachers can obtain a holistic picture of student progress. This approach is reinforced by the study emphasising the importance of integrating a cognitive neuropsychological approach in adaptive character assessment [45]. In addition, AI is also capable of predicting students' potential success or difficulties in understanding certain material, as well as providing recommendations for early intervention. For example, if a student shows a pattern of declining engagement with material on faith or *fiqh*, the AI system can alert the teacher to take a special approach. Research by Raza also confirms that AI supports learning that is more responsive to student needs through personalized and adaptive evaluation [46].

AI also opens up the possibility of developing more varied and innovative evaluation forms, such as digital religious projects, video-based spiritual reflections, interactive value simulations, or observations of religious behavior through digital platforms [47]. This explains that AI can be integrated into the Islamic education curriculum to design interactive, enjoyable learning platforms that align with developments in digital technology. With this, evaluation is focused on theoretical knowledge and students' emotional, spiritual, and social engagement.

However, the use of AI in Islamic religious education learning evaluation also poses some challenges, especially in terms of ethics and Islamic values. The collection and processing of student data must be done carefully, given the issues of privacy, confidentiality, and potential bias in algorithms. In addition, AI based evaluation approaches should not neglect the human touch in education, especially in shaping students' character and spirituality [48]. In their research emphasized that it is important for educators to understand the limitations of technology and continue to place teachers as the main guides in the educational process, especially in value-oriented subjects such as Islamic religious education.

Considering these various potentials and challenges, it can be concluded that the future of PAI learning evaluation with AI support is very promising. However, successful implementation requires cooperation between stakeholders, from teachers and technology developers to Islamic education experts, to ensure that this technology can truly strengthen the quality of education without sacrificing the basic values that form the main foundation of religious learning.

In the future, artificial intelligence (AI) has the potential to become an evaluation tool that is not only limited to cognitive aspects (knowledge), but also capable of reaching non cognitive aspects, such as emotions, attitudes, motivation, and academic integrity. In the context of Islamic religious education, this is very relevant because religious learning not only measures the ability to memorize and understand concepts, but also aims to holistically shape students' character and spirituality.

First, AI can be used to analyze students' emotions during the learning process, both through learning videos and interactions on digital platforms. Using technologies such as Facial Recognition, Eye Tracking, and Sentiment Analysis, AI systems can detect students' levels of engagement, confidence, anxiety, and interest in Islamic material. This provides teachers with deeper insights to

adjust learning methods and forms of evaluation to be more empathetic and supportive of students' mental health. Research by El Harfi in *Frontiers in Psychology* confirms that AI can be used to evaluate students' emotional conditions in real time and provide data-driven interventions [49].

Second, AI also has potential in affective assessment, which involves evaluating students' attitudes, values, and interests toward religious teachings. The system can analyze data from students' digital activities, such as participation in online discussions or reflective assignments states that AI-based affective assessment technology in Islamic religious education can help teachers understand students' spiritual tendencies more objectively and provide in depth and targeted feedback [50]. The system can record student interactions, such as responses in online discussions, comments in forums, and participation in digital spiritual activities. The AI algorithm then analyzes the frequency, consistency, and quality of student engagement to measure the level of internalization of Islamic values. A study by shows that a neuropsychology based AI approach can help evaluate affective dimensions personally and longitudinally [51].

Third, an equally important aspect is the detection of academic dishonesty, such as plagiarism, cheating in online exams, and insincerity in reflective assignments. AI systems can recognise anomalous patterns, such as similar answers between students, unreasonable completion times, or unauthorized use of external sources. This is very important in Islamic religious education, where honesty is a core value. National research in an educational technology journal states that the use of AI-based digital technology in madrasahs can help minimize cheating in online learning, while encouraging the internalization of the value of honesty.

Despite its great potential, the use of AI in measuring non-cognitive aspects must still be monitored ethically. Data obtained from emotional expressions, online behavior, and recordings of student interactions is sensitive, requiring policies that guarantee privacy and algorithmic fairness. Teachers, as guardians of Islamic educational values, retain ultimate control, while AI serves as a complementary tool, not a replacement, for human assessment.

The application of artificial intelligence (AI) has great potential to improve the efficiency of Islamic religious education learning evaluation. AI enables automated assessment, the use of chatbots to provide instant feedback, and integration with learning management systems (LMS) that can record and analyze student performance in real-time. Automatic assessment greatly helps teachers correct multiple-choice or short-answer assignments quickly and objectively [52]. Meanwhile, AI-based chatbots can answer students' questions outside of class hours, increasing engagement and communication efficiency. Integrating AI with LMS also makes it easier for teachers to monitor student progress and recommend remedial materials based on evaluation results. Furthermore, adaptive AI systems can adjust evaluation questions to the level of student ability, providing a more personalized learning experience. Furthermore, adaptive AI systems can adjust evaluation questions to the level of student ability, providing a more personalized learning experience [53]. However, the use of AI must remain grounded in Islamic educational ethics and principles. AI is a tool, not a substitute for the role of teachers in shaping students' character and religiosity.

In Islamic Religious Education (IRE) context, spiritual assessment has dimensions that transcend numbers, data, and algorithms. Spirituality is not only about outward behavior that can be measured quantitatively, but also includes sincerity, intention, and the inner relationship between humans and Allah. The Prophet Muhammad emphasized that human deeds depend on their intentions: "Indeed, every deed depends on its intention" (HR. Bukhari Muslim). Thus, spiritual assessment is essentially human and divine: humans can only judge what is visible, while Allah judges the heart and intentions (QS. al-Hujurāt: 13).

Artificial Intelligence (AI) is a technology capable of processing large amounts of data, analyzing learning behavior, and predicting the development trends of students. In the context of Islamic education, AI can be used to support evaluation by providing data on formal worship discipline, learning consistency, or student involvement in learning activities. However, AI remains limited to the physical aspect. The deepest dimensions of spirituality such as sincerity, devotion, and submission of the heart to Allah cannot be reached by AI, because these are divine matters that only Allah knows [29].

Therefore, AI must be positioned as a supporting tool, not a substitute for the role of teachers or spiritual mentors. PAI teachers still hold a central role as *murabbi* who educate by example, nurture with compassion, and assess spiritual development through direct interaction [54]. AI can only help reduce the administrative burden on teachers, but the essence of spiritual education remains relational, transcendental, and human. This emphasis is important so that the integration of AI in PAI does not reduce spirituality to mere data. Islamic education is the transfer of knowledge (*ta'lim*) and the formation of faith, morals, and divine consciousness (*tarbiyah*). Within the framework of *maqāṣid al-syarī'ah*, AI can be utilized to the extent that it supports the creation of (*maṣlaḥah*), justice ('*adl*), and trust [28]. However, AI should not take over the role of teachers or divine authority in assessing the human soul. Thus, AI can be a useful supporting instrument, while spiritual assessment remains within the human and divine realm.

4. Conclusion

The application of Artificial Intelligence (AI) in evaluating Islamic Religious Education learning opens up great opportunities to improve the learning process's effectiveness, efficiency, and personalization. AI enables real-time data analysis, automatic feedback, and adaptive assessment that strengthens cognitive aspects and begins to venture into affective and psychomotor assessment. However, the application of AI is not without serious challenges, such as algorithmic bias, ethical and data privacy issues, and limitations in assessing students' spirituality.

From an Islamic perspective, the use of AI must be based on the values of *maqāṣid al-syarī'ah*, upholding the principles of *maṣlaḥah* (benefit), '*adl* (justice), and *amānah* (responsibility). These three principles serve as guidelines so that technology is used to strengthen humanity, not replace it. Therefore, AI must be positioned as a tool that supports the Islamic education process, while teachers remain central to shaping the character and spirituality of students. In the future, the integration of AI in Islamic religious education needs to be developed through collaboration between educators, technology developers, and Sharia experts to create a fair, transparent evaluation system oriented towards public interest. Further research is recommended to involve empirical studies so that the application of AI in Islamic religious education evaluation can be tested in practice at various levels of education and institutional contexts of Islam in Indonesia.

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