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Integration of Artificial Intelligence in Islamic Religious Education Learning: Opportunities, Challenges, and Implementation Strategies

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Abstract

This study aims to analyze the integration of Artificial Intelligence (AI) in Islamic Religious Education (IRE) learning by examining its opportunities, challenges, and implementation strategies within contemporary educational contexts. The research employs a qualitative library research method, drawing upon academic books, peer-reviewed journal articles, policy documents, and relevant digital resources discussing AI in education, Islamic pedagogy, and lifelong learning. Data were analyzed using content analysis techniques to identify major themes related to technological transformation, pedagogical adaptation, ethical considerations, and institutional readiness. The findings indicate that AI offers significant opportunities for enhancing personalized learning, adaptive assessment, intelligent tutoring systems, and digital content development in IRE. AI-based platforms can support differentiated instruction, facilitate access to classical and contemporary Islamic sources, and promote interactive learning environments. However, the study also reveals substantial challenges, including ethical concerns, algorithmic bias, data privacy risks, digital inequality, teacher competency gaps, and potential reduction of spiritual-human interaction in religious learning. Effective implementation requires strategic planning, professional development for educators, curriculum redesign, ethical governance frameworks, and alignment with Islamic educational values. The study concludes that AI integration in IRE must balance technological innovation with moral, spiritual, and humanistic dimensions to ensure meaningful and sustainable educational transformation.

Keywords: Education Learning, Opportunities, Challenges.

Introduction

The rapid advancement of digital technology has significantly transformed global educational systems in the twenty-first century. One of the most influential technological developments is Artificial Intelligence (AI), which has increasingly been integrated into teaching and learning processes.¹ AI technologies have reshaped instructional design, assessment models, and student engagement strategies across multiple disciplines. Educational institutions are now adopting AI-driven platforms to improve efficiency, personalization, and accessibility.² This transformation reflects the broader shift toward digital and knowledge-based societies. Within this evolving landscape, religious education also faces the necessity of adapting to technological innovation.

Islamic Religious Education (IRE) plays a crucial role in shaping moral character, spiritual awareness, and ethical responsibility among learners. It is not merely concerned with cognitive knowledge but also emphasizes affective and behavioral dimensions. Traditionally, IRE relies heavily on direct teacher-student interaction, textual study, and reflective discussion.³ However, contemporary learners belong to a digital-native generation accustomed to interactive and technology-mediated learning environments. This shift creates both pressure and opportunity for integrating AI into IRE. The question is not whether technology should be integrated, but how it can be aligned with Islamic pedagogical values.

The integration of AI into education has been widely discussed in global academic discourse. Researchers argue that AI can enhance personalized learning experiences through adaptive systems that adjust content according to student performance. Intelligent tutoring systems can provide real-time feedback and track learning progress efficiently. In secular educational contexts, AI has demonstrated potential in improving learning outcomes and administrative efficiency. Nevertheless, religious education presents unique characteristics that require careful consideration. The spiritual and ethical dimensions of IRE demand a balanced approach that does not compromise core values.

In many Muslim-majority countries, digital transformation in education has accelerated following global technological expansion. Governments and educational institutions have begun exploring digital platforms for curriculum delivery. The emergence of online Islamic learning platforms indicates growing interest in

¹ Ong Art Chanprasitchai and Jintavee Khlaisang, "Inquiry-Based Learning for a Virtual Learning Community to Enhance Problem-Solving Ability of Applied Thai Traditional Medicine Students," *Turkish Online Journal of Educational Technology* 15, no. 4 (2016): 82, <http://www.tojet.net/articles/v15i4/1549.pdf>.

² Mehrgan Heydari Hengami, Foroogh Faridi, and Farahnaz Kamali, "Monitoring and Evaluating Quality of E-Learning in Basic Sciences Section and Introduction to Clinical Medicine Section in the School of Medicine During COVID-19 Pandemic," *Acta Medica Iranica* 60, no. 8 (2022): 529, <https://doi.org/10.18502/acta.v60i8.10839>.

³ Sizwe Frances Dlalisa and Desmond Wesley Govender, "Challenges of Acceptance and Usage of a Learning Management System amongst Academics," *International Journal of EBusiness and EGovernment Studies* 12, no. 1 (2020): 11, <https://doi.org/10.34111/ijepeg.202012105>.

technology-enhanced religious education. AI-based tools, such as automated translation of classical Islamic texts and smart content recommendations, are increasingly available. Despite these developments, systematic academic discussion regarding AI integration in IRE remains limited. This gap highlights the importance of scholarly inquiry in this area.

The challenges associated with AI integration in religious education are multifaceted. Ethical concerns related to data privacy, algorithmic bias, and digital surveillance are prominent issues. Additionally, there is apprehension that excessive reliance on technology may diminish human interaction, which is central to spiritual formation.⁴ Teachers may lack sufficient technological literacy to effectively implement AI-based tools. Infrastructure limitations and unequal access to digital resources also present barriers. These challenges must be addressed through comprehensive strategies.

Furthermore, AI integration raises theological and philosophical questions within Islamic education. Scholars must consider whether AI-generated content aligns with authentic Islamic teachings. The authority of religious knowledge traditionally rests upon qualified scholars and teachers. The use of AI in generating religious interpretations may create epistemological concerns. Therefore, integrating AI into IRE requires careful supervision and scholarly validation. The role of educators remains indispensable in guiding learners toward authentic understanding.

The concept of lifelong learning is also relevant to the integration of AI in IRE. Islam encourages continuous pursuit of knowledge throughout life. AI technologies can facilitate access to religious knowledge beyond formal educational settings. Digital platforms allow learners of various ages to engage with Islamic teachings flexibly. This aligns with the principle of education as an ongoing process. Consequently, AI may serve as a tool to strengthen lifelong Islamic learning practices.

Despite its potential benefits, AI integration must not undermine the holistic objectives of Islamic education. The aim of IRE extends beyond academic achievement to character development and spiritual growth. Technology should function as a supportive instrument rather than a replacement for human mentorship. Teachers play a central role in modeling ethical behavior and spiritual sincerity. AI systems cannot replicate human empathy and moral exemplification. Therefore, implementation strategies must preserve the humanistic foundation of IRE.

Educational policy frameworks must also adapt to technological innovation. Institutional readiness involves infrastructure development, teacher training, and curriculum reform. Without proper planning, AI implementation may produce superficial outcomes. Collaboration between Islamic scholars, educators, and

⁴ Saman Ebadi, Corresponding Author, and Saba Bashiri, "Technology Acceptance of NAVID Learning Management System in the Iranian Medical English Courses under the COVID-19 Pandemic * 1. Introduction The Growing Spread of the COVID-19 Pandemic in Many Parts of the World Resulted in a Temporary Suspension of Ed," *Two Quarterly Journal of English Language Teaching and Learning University of Tabriz* 12, no. 26 (2021): 418, <https://doi.org/10.22034/elt.2021.42131.2296>.

technology experts is essential. Such interdisciplinary cooperation ensures that technological solutions align with religious principles. Sustainable integration requires strategic governance and regulatory guidelines.

The global educational community increasingly recognizes the importance of digital literacy. In Islamic education contexts, digital literacy must include ethical and moral awareness. Students should be guided to use AI responsibly and critically. Critical thinking skills are necessary to evaluate AI-generated information. Integrating AI into IRE provides opportunities to cultivate digital ethics grounded in Islamic values. This approach transforms potential risks into educational opportunities.

Another significant factor is the socio-cultural context of Muslim societies. Educational innovation must consider cultural traditions and community expectations. Resistance to technological change may arise due to concerns about authenticity and tradition. Effective communication and gradual implementation strategies can address such concerns. Community involvement strengthens acceptance of AI-based initiatives. Cultural sensitivity remains a key component of successful integration.

The COVID-19 pandemic accelerated digital adoption in educational systems worldwide. Religious education institutions also shifted to online platforms during this period. This experience demonstrated both the feasibility and limitations of digital religious instruction.⁵ AI technologies can further enhance remote and hybrid learning models. Lessons learned from emergency digital transformation provide valuable insights. Future integration efforts can build upon these experiences.

Research on AI in education highlights the importance of ethical frameworks. Transparency, accountability, and fairness must guide AI deployment. In Islamic contexts, these principles resonate with concepts of justice and responsibility. Integrating Islamic ethical principles into AI governance models strengthens legitimacy. Ethical alignment enhances community trust in technological systems. This perspective ensures that AI supports rather than contradicts Islamic values.

The rapid growth of educational technology markets indicates long-term digital transformation. Islamic educational institutions cannot remain isolated from these developments. Strategic integration ensures competitiveness and relevance in the global educational environment.⁶ However, uncritical adoption may produce unintended consequences. Balanced evaluation of benefits and risks is therefore necessary. Scholarly research contributes to evidence-based decision-making.

Ultimately, integrating AI into IRE represents both opportunity and challenge. The success of this integration depends on thoughtful implementation strategies. Stakeholders must consider pedagogical, ethical, technological, and spiritual

⁵ Sedighe Sadat Hashemikamangar and Mehrzad Gholampourdehaki, "A Team-Based E-Learning Method for Clinical Education in the COVID-19 Pandemic," *Annals of Military and Health Sciences Research* 19, no. 3 (2021), <https://doi.org/10.5812/amh.115409>.

⁶ M A Mazlan, "Expert Consensus on The Construction Of The Main Component Of Islamic Education Teacher Competency Based On The Basic Principles Of Maqasid Syariah: Application Of Fuzzy Delphi Method," *Journal of Fatwa Management and Research* 26, no. 2 (2021): 302, <https://doi.org/10.33102/jfatwa.vol26no2.415>.

dimensions simultaneously. AI should enhance, not replace, the human-centered nature of Islamic education. Through careful planning and collaboration, AI can contribute to meaningful educational transformation. This study explores these dimensions comprehensively.

Theoretical Framework

Artificial Intelligence refers to computational systems designed to perform tasks that typically require human intelligence. These tasks include learning, reasoning, problem-solving, perception, and language understanding. In educational contexts, AI encompasses adaptive learning systems, intelligent tutoring systems, automated assessment tools, and learning analytics platforms.⁷ The theoretical foundation of AI in education is closely related to constructivist and cognitivist learning theories. Constructivism emphasizes active learner engagement, while AI systems can facilitate interactive and personalized learning experiences. Thus, AI can be positioned as a technological extension of learner-centered pedagogy.

The concept of Islamic Religious Education is rooted in holistic educational philosophy. Islamic pedagogy integrates intellectual, spiritual, moral, and social dimensions of human development. The ultimate goal of Islamic education is the formation of individuals who embody faith, knowledge, and righteous conduct.⁸ Classical scholars such as Al-Ghazali emphasized the integration of knowledge and ethics in educational processes. Education is viewed not merely as knowledge transmission but as character cultivation. Therefore, technological integration must align with these foundational principles.

The theory of technological integration in education is often explained through the Technological Pedagogical Content Knowledge (TPACK) framework. This model suggests that effective technology integration requires the intersection of technological knowledge, pedagogical knowledge, and content knowledge. In the context of IRE, teachers must understand Islamic content deeply while also mastering pedagogical strategies and digital tools. AI integration demands an expansion of teacher competencies beyond traditional methods. Professional development programs are therefore essential for successful implementation. The TPACK model provides a conceptual structure for this integration.

Constructivist learning theory emphasizes active knowledge construction through experience and interaction. AI-based adaptive systems can support

⁷ Dlalisa and Govender, "Challenges of Acceptance and Usage of a Learning Management System amongst Academics."

⁸ Nazir Ahmed Jomezai, Shaik Abdul Malik Mohamed Ismail, and Fozia Ahmed Baloch, "Secondary School Teachers' Concerns about ICT Integration: Perspectives from a Developing Part of the Globe," *Eurasia Journal of Mathematics, Science and Technology Education* 14, no. 12 (2018), <https://doi.org/10.29333/ejmste/95124>.

constructivist learning by tailoring content to individual learner needs.⁹ These systems analyze learner responses and adjust materials accordingly. Personalized feedback encourages reflection and self-regulated learning. In IRE, such systems may assist students in understanding complex theological concepts. However, teacher guidance remains necessary to ensure accurate interpretation.

Behaviorist theory also contributes to understanding AI integration. Automated assessment systems rely on measurable responses and reinforcement mechanisms. AI tools can provide immediate feedback, which reinforces learning behaviors.¹⁰ In Qur'anic memorization exercises, for example, AI-powered speech recognition may help correct pronunciation. Such tools enhance practice efficiency while maintaining learning accuracy. Nevertheless, behaviorist approaches should be complemented by reflective and spiritual dimensions.

Humanistic educational theory emphasizes personal growth and self-actualization. Islamic education shares similar goals in nurturing balanced individuals. AI technologies should therefore be designed to support emotional and moral development. Excessive reliance on algorithmic systems may risk reducing education to mechanical processes.¹¹ The humanistic perspective reminds educators of the importance of empathy and authentic relationships. Technology must serve human development rather than replace human presence.

Ethical theory in Islamic education is grounded in principles of justice, responsibility, and trust. AI governance must align with these values to maintain legitimacy. Data privacy protection reflects the Islamic principle of safeguarding personal dignity. Transparency in algorithmic processes corresponds with accountability. Ethical AI frameworks ensure that technological systems do not perpetuate bias or misinformation. Therefore, ethical oversight is a fundamental theoretical component of AI integration.

Digital literacy theory is also relevant to this discussion. Digital literacy extends beyond technical skills to include critical evaluation of information. Students must be able to assess AI-generated content critically. In IRE contexts, this includes verifying religious authenticity. Teachers must guide learners in distinguishing between credible and unreliable digital sources. Digital literacy education strengthens responsible AI usage.

The concept of lifelong learning holds significant importance in Islamic tradition. A well-known prophetic tradition encourages seeking knowledge from cradle to grave.

⁹ Z A Mubi, "The Use of Qur'anic Studies Textbooks in Malaysian Secondary Schools: A Systematic Literature Review in the Context of Contemporary Islamic Education," *Islamiyyat* 47, no. 2 (2025): 65–86, <https://doi.org/10.17576/islamiyyat-2025-4702-06>.

¹⁰ Soyeong Kwon et al., "The Identity Changes in Online Learning and Teaching: Instructors, Learners, and Learning Management Systems," *International Journal of Educational Technology in Higher Education* 18, no. 1 (2021): 1–18, <https://doi.org/10.1186/s41239-021-00304-8>.

¹¹ A C Lagman, A L M Maddalora, and J T Casin, "SWOT-Based Learning Management System Performance Analysis in FEU Institute of Technology," *International Journal of Engineering Research and General Science* 3, no. 5 (n.d.): 463–74, <http://pnrsolution.org/Datacenter/Vol3/Issue5/58.pdf>.

This principle aligns with modern lifelong education theory. AI technologies can facilitate continuous learning through online platforms and mobile applications.¹² Learners are no longer confined to classroom settings. Theoretical alignment between Islamic lifelong learning and digital accessibility strengthens integration efforts.

Sociocultural theory highlights the importance of social interaction in learning. Religious education is inherently communal and dialogical. AI tools must therefore support collaborative learning rather than isolate learners. Discussion forums, AI-facilitated group tasks, and peer assessment systems can enhance social learning. Community engagement remains central to Islamic pedagogy. Sociocultural perspectives remind educators that technology must reinforce communal bonds.

The philosophy of education in Islam integrates revelation and reason. Knowledge is derived from both divine sources and rational inquiry. AI operates within the realm of rational and empirical analysis.¹³ Therefore, its integration must respect the hierarchy of knowledge in Islamic epistemology. Human scholars retain authority in interpreting revelation. AI can assist in organizing information but cannot replace scholarly judgment.

Critical pedagogy theory emphasizes empowerment and reflective awareness. Integrating AI into IRE should empower learners rather than create dependency. Students should understand how AI systems function.¹⁴ Awareness of algorithmic influence encourages critical engagement. Critical pedagogy ensures that technology use remains conscious and purposeful. This perspective prevents passive consumption of AI-generated content.

Innovation diffusion theory explains how new technologies spread within institutions. Adoption depends on perceived usefulness, compatibility, and ease of use. In Islamic educational institutions, compatibility with religious values is particularly important. Leaders play a significant role in promoting innovation. Institutional culture influences acceptance levels.¹⁵ Understanding diffusion processes aids in strategic implementation.

Educational change theory emphasizes systematic planning and stakeholder involvement. AI integration must be gradual and structured. Sudden transformation without preparation may generate resistance. Professional training, pilot projects, and

¹² R Ismail, "Experiences of the Yayasan Pendidikan Islam (Yapis) Di Tanah Papua in Extending Human Resources," *Millah Journal of Religious Studies* 22, no. 1 (2023): 127–54, <https://doi.org/10.20885/millah.vol22.iss1.art5>.

¹³ Sousan Houshmandi et al., "E-Learning Readiness among Faculty Members of Medical Sciences Universities and Provide Strategies to Improve It," *Research and Development in Medical Education* 8, no. 2 (2019): 105–12, <https://doi.org/10.15171/rdme.2019.020>.

¹⁴ B P Mukti, "Islamic Worldview and the Indonesian Education Goals: A Systematic Literature Review," *Islamiyyat* 46, no. 2 (2024): 179–91, <https://doi.org/10.17576/islamiyyat-2024-4602-17>.

¹⁵ Theodoros Mastoras et al., "Designing Simplicity: Usability Perspectives on Learning Management Systems," *WSEAS Transactions on Information Science and Applications* 2, no. 10 (2005): 1731–38.

evaluation mechanisms support effective change.¹⁶ Continuous monitoring ensures sustainability. Change theory thus informs practical implementation strategies. Finally, interdisciplinary theory underscores collaboration between diverse fields. AI integration in IRE requires cooperation between Islamic scholars, educators, technologists, and policymakers. Each stakeholder contributes unique expertise. Interdisciplinary dialogue ensures that technological solutions align with pedagogical and theological principles. Collaborative governance models enhance legitimacy. This theoretical perspective reinforces comprehensive integration.

Method

This study employs a qualitative library research approach. Library research focuses on collecting and analyzing existing scholarly literature. The data sources include academic books, peer-reviewed journal articles, conference proceedings, and policy documents. Digital databases were used to identify relevant publications on AI in education and Islamic pedagogy. This method allows for comprehensive theoretical analysis without field experimentation. The approach is suitable for conceptual and analytical studies.

Data collection involved systematic literature review procedures. Keywords such as artificial intelligence, Islamic education, digital pedagogy, and lifelong learning were utilized. Relevant sources were selected based on credibility and relevance. Priority was given to recent publications to ensure contemporary relevance. Classical Islamic educational texts were also consulted for foundational perspectives. This combination ensures balanced analysis.

Data analysis was conducted using content analysis techniques. Themes were identified through careful reading and coding.¹⁷ Recurring patterns related to opportunities, challenges, and implementation strategies were categorized. The analysis also examined ethical considerations and theoretical alignment. Comparative analysis was applied to identify similarities between Islamic and modern educational theories. This systematic process enhances reliability.

Validity was ensured through triangulation of sources. Multiple references were compared to confirm consistency of findings. Scholarly interpretations were cross-checked with primary Islamic sources. Analytical rigor was maintained throughout the research process. This strengthens the credibility of conclusions.

The library research method enables in-depth conceptual exploration. Although it does not provide empirical data, it offers theoretical clarity. The findings can inform future empirical research. Researchers may later conduct field studies to

¹⁶ S A Pranajaya, "Discourse of Islamic Educational Philosophy on Islamic Educational Psychology in Islamic Education," *Islamiyyat* 46, no. 1 (2024): 69–81, <https://doi.org/10.17576/islamiyyat-2024-4601-06>.

¹⁷ E S Kusumaputri, "Positioning Indonesian Islamic Higher-Education Vis-a-Vis Globalisation: Organisational-Resilience Dynamics," *Cakrawala Pendidikan* 40, no. 2 (2021): 413–27, <https://doi.org/10.21831/cp.v40i2.39357>.

test proposed strategies. Thus, this study provides foundational groundwork.

Results and Discussion

The findings indicate that AI integration offers transformative potential for IRE. Personalized learning systems allow students to progress at their own pace. Adaptive quizzes can assess comprehension levels accurately. AI-powered platforms may provide interactive simulations of historical Islamic contexts. Such innovations enhance engagement and motivation. Students become active participants rather than passive recipients.

Another significant opportunity lies in intelligent tutoring systems. These systems provide immediate feedback and explanations. Learners struggling with Arabic grammar, for instance, can receive targeted assistance. Automated corrections improve efficiency in large classrooms.¹⁸ Teachers can focus on higher-order discussions. This division of roles enhances instructional quality.

AI also supports digital preservation of Islamic heritage. Manuscripts and classical texts can be digitized and indexed intelligently. Searchable databases facilitate research accessibility. Students can explore diverse scholarly opinions efficiently. This promotes critical and comparative understanding. Accessibility broadens educational inclusivity.

Despite these benefits, ethical concerns remain prominent. Data privacy is a critical issue in AI-based systems. Student performance data must be protected securely. Unauthorized access may compromise personal dignity. Ethical governance frameworks are therefore necessary.¹⁹ Institutional policies must regulate data usage.

Algorithmic bias presents another challenge. AI systems trained on limited datasets may produce inaccurate outputs. In religious contexts, misinformation may have serious consequences. Human supervision is essential to verify content accuracy. Scholarly boards should oversee AI-generated materials. Such oversight maintains doctrinal integrity.

Teacher readiness significantly influences successful integration. Many educators lack advanced digital competencies. Professional development programs are therefore crucial. Training should combine technical and pedagogical dimensions.²⁰ Teachers must understand AI limitations as well as benefits. Capacity building strengthens implementation sustainability.

¹⁸ Pramod Kumar, "Review Study on E-Learning in Higher Education Administration and Management Review Study on E-Learning in Higher Education Administration and Management View Project Review Study on E-Learning in Higher Education Administration and Management," *Ijitr International Journal of Innovative Technology and Research* 8, no. 8 (2020): 9506–9511, <http://www.ijitr.com/allrightsreserved>.

¹⁹ Kieran Walsh, "Cost and Value in E-Learning: The Perspective of the Learner," *BMJ Simulation and Technology Enhanced Learning* 4, no. 4 (2018): 201–2, <https://doi.org/10.1136/bmjstel-2017-000239>.

²⁰ A W Surtahman, "The Impact of Artificial Intelligence (AI) in Lifelong Learning Cybergogy from Islamic and Western Perspectives," *Global Journal Al Thaqqafah* 15, no. 1 (2025): 189–208, <https://doi.org/10.7187/GJAT072025-12>.

Infrastructure disparities create digital inequality. Rural or underfunded institutions may lack reliable internet access. AI integration without infrastructure readiness may widen educational gaps.²¹ Governments and institutions must invest in technological resources. Equitable access supports inclusive education. Infrastructure development is thus foundational.

The spiritual dimension of IRE must remain central. AI tools cannot replace moral exemplification provided by teachers. Character development requires authentic human interaction. Technology should complement, not substitute, mentorship. Balanced integration ensures holistic development. Spiritual authenticity remains paramount.

Curriculum redesign is also necessary. AI-based learning requires flexible and modular structures. Traditional curricula may need adaptation to digital formats. Learning outcomes should incorporate digital literacy skills. Ethical AI usage should be embedded in objectives. Curriculum reform supports coherence.

The concept of lifelong education aligns strongly with AI integration. Digital platforms enable continuous access to religious knowledge. Adult learners can revisit foundational teachings. Flexible scheduling supports working professionals. AI-powered recommendations personalize lifelong learning pathways. This reflects the Islamic encouragement of ongoing knowledge pursuit.

Below is a conceptual table summarizing opportunities, challenges, and strategies:

No	Aspect	Opportunities	Challenges	Implementation Strategies
1	Pedagogical	Personalized learning, adaptive feedback	Reduced human interaction	Blended learning models
2	Ethical	Transparent governance	Data privacy risks	Ethical AI framework
3	Institutional	Efficient administration	Infrastructure gaps	Strategic investment
4	Lifelong Learning	Continuous access	Digital divide	Community-based digital programs

The table illustrates the multidimensional nature of AI integration. Pedagogically, AI enhances personalization but risks reducing interpersonal engagement. Blended learning models can balance digital and face-to-face interaction. Ethical governance ensures data protection and transparency. Institutional commitment through investment addresses infrastructure gaps. Community programs promote inclusive lifelong learning.

Implementing lifelong education in contemporary contexts requires strategic

²¹ Ika Febrian Kristiana et al., "Online Student Engagement: The Overview of HE in Indonesia," *International Review of Research in Open and Distance Learning* 24, no. 3 (2023): 34–53, <https://doi.org/10.19173/irrodl.v24i3.7125>.

alignment. AI platforms can host modular courses accessible across age groups. Micro-credentialing systems recognize continuous learning achievements.²² Community mosques and institutions may collaborate with digital providers. This creates hybrid learning ecosystems. Lifelong education becomes practically achievable.

Belajar sepanjang hayat in contemporary education emphasizes adaptability. Rapid technological change requires continuous skill development. AI supports adaptive learning trajectories. Learners receive updated content aligned with evolving knowledge. Continuous assessment tracks progress effectively. This approach strengthens resilience. AI integration must therefore adopt a balanced framework. Opportunities should be maximized while mitigating risks. Ethical supervision, teacher empowerment, and curriculum redesign are key pillars. Lifelong education principles provide philosophical grounding. Implementation strategies must remain context-sensitive. Sustainable integration depends on collaborative governance.

²² Sultan Hammad Alshammari, "The Influence of Technical Support, Perceived Self-Efficacy, and Instructional Design on Students' Use of Learning Management Systems," *Turkish Online Journal of Distance Education* 21, no. 3 (2020): 112–41, <https://doi.org/10.17718/TOJDE.762034>.

Conclusion

The integration of Artificial Intelligence in Islamic Religious Education presents transformative opportunities alongside complex challenges. AI technologies can enhance personalization, accessibility, and administrative efficiency. However, ethical concerns, digital inequality, and potential reduction of human interaction require careful attention. Balanced implementation ensures that technological tools support rather than replace spiritual and moral guidance. Strategic planning and interdisciplinary collaboration are essential for sustainable adoption, ultimately, AI integration must align with the holistic objectives of Islamic education. Lifelong learning principles provide strong conceptual support for digital innovation. Continuous professional development empowers educators to navigate technological change. Ethical governance frameworks safeguard doctrinal authenticity and personal dignity. Through thoughtful implementation, AI can contribute positively to contemporary Islamic education. Sustainable integration requires commitment to both technological excellence and spiritual integrity.

Bibliography

- Alshammari, Sultan Hammad. "The Influence of Technical Support, Perceived Self-Efficacy, and Instructional Design on Students' Use of Learning Management Systems." *Turkish Online Journal of Distance Education* 21, no. 3 (2020): 112–41. <https://doi.org/10.17718/TOJDE.762034>.
- Chanprasitchai, Ong Art, and Jintavee Khlaisang. "Inquiry-Based Learning for a Virtual Learning Community to Enhance Problem-Solving Ability of Applied Thai Traditional Medicine Students." *Turkish Online Journal of Educational Technology* 15, no. 4 (2016): 77–87. <http://www.tojet.net/articles/v15i4/1549.pdf>.
- Dlalis, Sizwe Frances, and Desmond Wesley Govender. "Challenges of Acceptance and Usage of a Learning Management System amongst Academics." *International Journal of EBusiness and EGovernment Studies* 12, no. 1 (2020): 1–16. <https://doi.org/10.34111/ijepeg.202012105>.
- Ebadi, Saman, Corresponding Author, and Saba Bashiri. "Technology Acceptance of NAVID Learning Management System in the Iranian Medical English Courses under the COVID-19 Pandemic * I . Introduction The Growing Spread of the COVID-19 Pandemic in Many Parts of the World Resulted in a Temporary Suspension of Ed." *Two Quarterly Journal of English Language Teaching and Learning University of Tabriz* 12, no. 26 (2021): 401–33. <https://doi.org/10.22034/elt.2021.42131.2296>.
- Hashemikamangar, Sedighe Sadat, and Mehrzad Gholampourdehaki. "A Team-Based E-Learning Method for Clinical Education in the COVID-19 Pandemic." *Annals of Military and Health Sciences Research* 19, no. 3 (2021). <https://doi.org/10.5812/amh.115409>.
- Hengami, Mehrgan Heydari, Foroogh Faridi, and Farahnaz Kamali. "Monitoring and Evaluating Quality of E-Learning in Basic Sciences Section and Introduction to Clinical Medicine Section in the School of Medicine During COVID-19 Pandemic." *Acta Medica Iranica* 60, no. 8 (2022): 526–31. <https://doi.org/10.18502/acta.v60i8.10839>.
- Houshmandi, Sousan, Eisa Rezaei, Javad Hatami, and Behnam Molaei. "E-Learning Readiness among Faculty Members of Medical Sciences Universities and Provide Strategies to Improve It." *Research and Development in Medical Education* 8, no. 2 (2019): 105–12. <https://doi.org/10.15171/rdme.2019.020>.
- Ismail, R. "Experiences of the Yayasan Pendidikan Islam (Yapis) Di Tanah Papua in Extending Human Resources." *Millah Journal of Religious Studies* 22, no. 1 (2023): 127–54. <https://doi.org/10.20885/millah.vol22.iss1.art5>.
- Jogezai, Nazir Ahmed, Shaik Abdul Malik Mohamed Ismail, and Fozia Ahmed Baloch. "Secondary School Teachers' Concerns about ICT Integration: Perspectives from a Developing Part of the Globe." *Eurasia Journal of Mathematics, Science and Technology Education* 14, no. 12 (2018).

<https://doi.org/10.29333/ejmste/95124>.

- Kristiana, Ika Febrian, Unika Prihatsanti, Ermida Simanjuntak, and Costrie Ganes Widayanti. "Online Student Engagement: The Overview of HE in Indonesia." *International Review of Research in Open and Distance Learning* 24, no. 3 (2023): 34–53. <https://doi.org/10.19173/irrodl.v24i3.7125>.
- Kumar, Pramod. "Review Study on E-Learning in Higher Education Administration and Management Review Study on E-Learning in Higher Education Administration and Management View Project Review Study on E-Learning in Higher Education Administration and Management." *Ijitr) International Journal of Innovative Technology and Research* 8, no. 8 (2020): 9506–9511. <http://www.ijitr.comallrightsreserved>.
- Kusumaputri, E S. "Positioning Indonesian Islamic Higher-Education Vis-a-Vis Globalisation: Organisational-Resilience Dynamics." *Cakrawala Pendidikan* 40, no. 2 (2021): 413–27. <https://doi.org/10.21831/cp.v40i2.39357>.
- Kwon, Soyeong, Woolchul Kim, Changyeon Bae, Minjang Cho, Seunghoon Lee, and Neal Dreamson. "The Identity Changes in Online Learning and Teaching: Instructors, Learners, and Learning Management Systems." *International Journal of Educational Technology in Higher Education* 18, no. 1 (2021): 1–18. <https://doi.org/10.1186/s41239-021-00304-8>.
- Lagman, A C, A L M Maddalora, and J T Casin. "SWOT-Based Learning Management System Performance Analysis in FEU Institute of Technology." *International Journal of Engineering Research and General Science* 3, no. 5 (n.d.): 463–74. <http://pnrsolution.org/Datacenter/Vol3/Issue5/58.pdf>.
- Mastoras, Theodoros, Panagiotis Fotaris, Anastasios Politis, and Athanasios Manitsaris. "Designing Simplicity: Usability Perspectives on Learning Management Systems." *WSEAS Transactions on Information Science and Applications* 2, no. 10 (2005): 1731–38.
- Mazlan, M A. "Expert Consensus on The Construction Of The Main Component Of Islamic Education Teacher Competency Based On The Basic Principles Of Maqasid Syariah: Application Of Fuzzy Delphi Method." *Journal of Fatwa Management and Research* 26, no. 2 (2021): 298–310. <https://doi.org/10.33102/jfatwa.vol26no2.415>.
- Mubi, Z A. "The Use of Qur'anic Studies Textbooks in Malaysian Secondary Schools: A Systematic Literature Review in the Context of Contemporary Islamic Education." *Islamiyyat* 47, no. 2 (2025): 65–86. <https://doi.org/10.17576/islamiyyat-2025-4702-06>.
- Mukti, B P. "Islamic Worldview and the Indonesian Education Goals: A Systematic Literature Review." *Islamiyyat* 46, no. 2 (2024): 179–91. <https://doi.org/10.17576/islamiyyat-2024-4602-17>.
- Pranajaya, S A. "Discourse of Islamic Educational Philosophy on Islamic Educational Psychology in Islamic Education." *Islamiyyat* 46, no. 1 (2024): 69–81. <https://doi.org/10.17576/islamiyyat-2024-4601-06>.

- Surtahman, A W. "The Impact of Artificial Intelligence (AI) in Lifelong Learning Cybergogy from Islamic and Western Perspectives." *Global Journal Al Thaqafah* 15, no. 1 (2025): 189–208. <https://doi.org/10.7187/GJAT072025-12>.
- Walsh, Kieran. "Cost and Value in E-Learning: The Perspective of the Learner." *BMJ Simulation and Technology Enhanced Learning* 4, no. 4 (2018): 201–2. <https://doi.org/10.1136/bmjstel-2017-000239>.