

The Role of Technology in Enhancing the Competence of Islamic Education Teachers in the Digital Era

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Abstract

This study aims to analyze the role of technology in enhancing the competence of Islamic Education teachers in the digital era, particularly in pedagogical, professional, social, and personal competencies. The development of information and communication technology has brought significant changes to the learning process, requiring Islamic Education teachers to effectively and innovatively integrate digital technology into educational activities. This research employed a qualitative method using a library research approach through the analysis of various scientific journals, books, and academic documents relevant to the use of technology in Islamic education. The findings reveal that the use of digital technology, such as online learning platforms, interactive media, educational applications, and social media, can improve the quality of Islamic Education learning, expand access to learning resources, and encourage teachers' creativity and professionalism. In addition, technology supports teachers' competency development through digital-based training and online learning communities. The novelty of this study lies in the comprehensive integration of Islamic Education teacher competencies with the digital transformation of Islamic education, emphasizing that technology functions not only as a learning tool but also as a medium for sustainable professional development for teachers in the digital era.

Keywords: Educational Technology, Teacher Competence, Islamic Education

Abstrak

Penelitian ini bertujuan untuk menganalisis peran teknologi dalam meningkatkan kompetensi guru Pendidikan Agama Islam di era digital, khususnya dalam kompetensi pedagogis, profesional, sosial, dan personal. Perkembangan teknologi informasi dan komunikasi telah membawa perubahan signifikan pada proses pembelajaran, sehingga guru Pendidikan Agama Islam perlu mengintegrasikan teknologi digital secara efektif

dan inovatif ke dalam kegiatan pendidikan. Penelitian ini menggunakan metode kualitatif dengan pendekatan riset kepustakaan melalui analisis berbagai jurnal ilmiah, buku, dan dokumen akademik yang relevan dengan penggunaan teknologi dalam pendidikan agama Islam. Hasil penelitian menunjukkan bahwa penggunaan teknologi digital, seperti platform pembelajaran daring, media interaktif, aplikasi pendidikan, dan media sosial, dapat meningkatkan kualitas pembelajaran Pendidikan Agama Islam, memperluas akses terhadap sumber belajar, dan mendorong kreativitas serta profesionalisme guru. Selain itu, teknologi mendukung pengembangan kompetensi guru melalui pelatihan berbasis digital dan komunitas pembelajaran daring. Kebaruan studi ini terletak pada integrasi komprehensif kompetensi guru Pendidikan Agama Islam dengan transformasi digital pendidikan agama Islam, menekankan bahwa teknologi tidak hanya berfungsi sebagai alat pembelajaran tetapi juga sebagai media untuk pengembangan profesional berkelanjutan bagi guru di era digital.

Kata kunci: Teknologi Pendidikan, Kompetensi Guru, Pendidikan Islam

Introduction

The development of information and communication technology in the digital era has brought significant changes to various aspects of life, including the field of education.¹ Digital transformation not only affects learning methods but also changes the pattern of interaction between teachers and students in the educational process. The use of technology in learning has now become a major necessity to create effective, interactive, and relevant learning processes in accordance with current developments. In the context of education, teachers are required to adapt to technological advancements in order to improve the quality of learning and their professional competence.

Islamic Education plays an important role in shaping students' character, morality, and spirituality. However, the challenges of Islamic Education learning in the digital era are becoming increasingly complex because students today live in an environment closely connected to technology and digital media. Therefore, Islamic Education teachers are required not only to master Islamic knowledge but also to utilize digital technology as an innovative and engaging learning medium.² The integration of technology into Islamic Education learning can help teachers deliver materials more effectively through online learning platforms, interactive videos, educational applications, and social media as tools for communication and learning.

Teacher competence is a key factor that determines the success of the educational process. Based on Law Number 14 of 2005 concerning Teachers and

¹ Cedric Bheki Mpungose and Simon Bheki Khoza, "Postgraduate Students' Experiences on the Use of Moodle and Canvas Learning Management System," *Technology, Knowledge and Learning* 27, no. 1 (2022): 7, <https://doi.org/10.1007/s10758-020-09475-1>.

² Bongani T. Gamede, Oluwatoyin Ayodele Ajani, and Olufemi Sunday Afolabi, "Exploring the Adoption and Usage of Learning Management System as Alternative for Curriculum Delivery in South African Higher Education Institutions during Covid-19 Lockdown," *International Journal of Higher Education* 11, no. 1 (2021): 71, <https://doi.org/10.5430/ijhe.v11n1p71>.

Lecturers, teacher competence includes pedagogical, professional, social, and personal competencies. In the digital era, these four competencies need to be developed through the utilization of technology so that teachers are able to face the challenges of modern education. Pedagogical competence can be enhanced through the use of digital learning media, professional competence can develop through access to various online knowledge resources, social competence can be strengthened through digital communication, while personal competence is reflected in the ethical and responsible use of technology.

The use of technology in education also provides great opportunities for Islamic Education teachers to improve creativity and learning effectiveness. Various digital platforms such as Learning Management Systems (LMS), Zoom Meetings, Google Classroom, and multimedia-based learning applications enable teachers to create more flexible and interactive learning environments.³ In addition, technology opens broad access to Islamic literature, learning materials, and professional training that can support the continuous improvement of teachers' competencies. However, there are still several challenges in its implementation, such as limited digital skills among teachers, lack of technological facilities, and low digital literacy in certain educational environments.

Several previous studies have discussed the use of technology in education and the development of teacher competencies. However, most studies still focus on general education and have not specifically examined how technology contributes comprehensively to enhancing the competence of Islamic Education teachers. Therefore, this study is important to provide a deeper understanding of the role of technology in supporting the improvement of Islamic Education teachers' competencies in the digital era.

This study aims to analyze the role of technology in enhancing the competence of Islamic Education teachers in the digital era, including pedagogical, professional, social, and personal competencies. In addition, this study seeks to identify the opportunities and challenges in utilizing technology in Islamic Education learning. Thus, the results of this study are expected to contribute to the development of effective technology-based learning strategies for Islamic Education teachers and serve as a reference for the advancement of Islamic education in the digital era, 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.⁴ AI technologies have reshaped instructional design,

³ 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): 528, <https://doi.org/10.18502/acta.v60i8.10839>.

⁴ 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*

assessment models, and student engagement strategies across multiple disciplines. Educational institutions are now adopting AI-driven platforms to improve efficiency, personalization, and accessibility.⁵ 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.⁶ 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 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

Online Journal of Educational Technology 15, no. 4 (2016): 82, <http://www.tojet.net/articles/v15i4/1549.pdf>.

⁵ Hengami, Faridi, and 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," 529.

⁶ 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>.

reliance on technology may diminish human interaction, which is central to spiritual formation.⁷ 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 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.

⁷ 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>.

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.⁸ 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.⁹ 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 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.

Literature Review

The rapid development of information and communication technology in the

⁸ 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>.

⁹ 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>.

digital era has significantly transformed the landscape of education.¹⁰ Many scholars argue that technology is no longer merely a supporting tool but has become an integral part of the teaching and learning process. In this context, digital transformation in education has encouraged teachers to adapt their pedagogical approaches to meet the needs of 21st-century learners. The integration of technology into education has been widely discussed as a key factor in improving the quality and effectiveness of learning. Therefore, understanding the role of technology in education is essential for developing modern educational practices.

In relation to teacher competence, several studies emphasize that teacher quality is a determining factor in educational success. Teacher competence generally includes pedagogical, professional, social, and personal competencies.¹¹ These competencies are essential for ensuring effective teaching and learning processes. In the digital era, these competencies are expected to evolve through the integration of technology. Teachers are required to not only master subject content but also utilize digital tools to enhance their teaching effectiveness. Consequently, technology becomes a catalyst in improving overall teacher competence.

Previous research on pedagogical competence highlights that technology enables more interactive and student-centered learning. Digital platforms such as Learning Management Systems (LMS), video conferencing tools, and multimedia applications allow teachers to design more engaging learning experiences. Scholars have found that the use of digital media increases student motivation and participation in learning activities. This shift from traditional to digital learning environments reflects the growing importance of pedagogical innovation. Therefore, technology plays a crucial role in reshaping teaching strategies in modern education.

In terms of professional competence, literature shows that technology provides teachers with unlimited access to educational resources. Online journals, e-books, webinars, and digital training platforms allow teachers to continuously update their knowledge. Many researchers emphasize that continuous professional development is essential in maintaining teacher quality.¹² Technology facilitates lifelong learning by removing barriers of time and location. As a result, teachers can improve their professional skills more efficiently and independently. This indicates that digital technology significantly contributes to professional growth in education.

Social competence is another important aspect discussed in educational literature. Studies reveal that technology enhances communication and collaboration

¹⁰ N. N.M. Kasim and F. Khalid, "Choosing the Right Learning Management System (LMS) for the Higher Education Institution Context: A Systematic Review," *International Journal of Emerging Technologies in Learning* 11, no. 6 (2016): 55–61, <https://doi.org/10.3991/ijet.v11i06.5644>.

¹¹ Yousef Alduraywish, John Patsavellas, and Konstantinos Salonitis, "Critical Success Factors for Improving Learning Management Systems Diffusion in KSA HEIs: An ISM Approach," *Education and Information Technologies* 27, no. 1 (2022): 1105–31, <https://doi.org/10.1007/s10639-021-10621-0>.

¹² Phuong Tam Pham et al., "Learning Management System in Developing Countries: A Bibliometric Analysis Between 2005 and 2020," *European Journal of Educational Research* 11, no. 3 (2022): 1363–77, <https://doi.org/10.12973/eu-jer.11.3.1363>.

between teachers, students, and parents. Digital communication tools such as messaging applications and social media platforms allow for faster and more effective interaction. This improves transparency and strengthens relationships within the educational environment. Furthermore, online collaboration among educators promotes the sharing of knowledge and teaching experiences. Thus, technology plays an important role in strengthening social interaction in education.

Personal competence, particularly in the context of ethics and character, is also influenced by technology use. Researchers highlight the importance of digital ethics in education, especially for teachers.¹³ Teachers are expected to model responsible and ethical behavior in using digital media. In Islamic Education, this aspect becomes even more significant because it relates to moral and spiritual values. Technology must therefore be used in a way that aligns with ethical and religious principles. This shows that personal competence is closely linked to digital responsibility.

In Islamic Education, the integration of technology has been widely discussed in recent literature. Scholars argue that digital tools can enhance the delivery of Islamic teachings in a more engaging and accessible manner. Multimedia content such as videos, animations, and interactive presentations helps students better understand Islamic concepts.¹⁴ Additionally, online platforms provide access to a wide range of Islamic learning resources. This demonstrates that technology supports the modernization of Islamic Education without neglecting its core values.

However, literature also identifies several challenges in integrating technology into education. One major challenge is the digital literacy gap among teachers. Not all educators have sufficient skills to effectively use digital tools in teaching. Another challenge is the lack of adequate technological infrastructure, especially in rural areas. Limited internet access and insufficient devices hinder the optimal use of technology in education. These challenges highlight the need for institutional support and training programs.

Another important issue discussed in previous studies is the balance between technology and traditional values. While technology offers many benefits, it may also lead to negative impacts if not used properly. In Islamic Education, maintaining moral and spiritual values is essential.¹⁵ Therefore, teachers must ensure that technology use does not compromise ethical principles. Instead, it should strengthen character education and religious understanding. This balance is a key focus in many contemporary studies.

The literature also emphasizes the importance of teacher training and

¹³ 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>.

¹⁴ Dlalisa and Govender, "Challenges of Acceptance and Usage of a Learning Management System amongst Academics."

¹⁵ 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>.

professional development programs. Many studies suggest that effective integration of technology requires continuous training for teachers. Such programs help teachers develop digital skills and pedagogical strategies.

Governments and educational institutions play a crucial role in providing these opportunities. Without proper training, the potential benefits of technology cannot be fully realized. Therefore, capacity building is essential for successful educational transformation.¹⁶ Overall, the literature indicates that technology has a profound impact on improving teacher competence and educational quality. It enhances pedagogical innovation, professional development, social interaction, and personal ethics. In Islamic Education, technology also supports the integration of modern learning methods with religious values. However, challenges such as digital literacy gaps and infrastructure limitations must be addressed. Future research is needed to explore more effective strategies for technology integration. Thus, technology remains a key element in shaping the future of education in the digital era.

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-

¹⁶ 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>.

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>.

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

Result and Discussion

The results of this study show that technology plays an important role in enhancing the competencies of Islamic Education teachers in the digital era. The integration of digital technology into the learning process contributes significantly to the development of pedagogical, professional, social, and personal competencies.¹⁸ In terms of pedagogical competence, technologies such as Learning Management Systems (LMS), Google Classroom, Zoom Meeting, and multimedia-based applications help teachers create more interactive, flexible, and student-centered learning environments. The use of videos, digital presentations, online quizzes, and educational applications increases students' motivation and participation in Islamic Education learning. Furthermore, technology enables teachers to access broader educational resources, including e-books, scientific journals, webinars, and online training programs, which support the continuous improvement of their professional competence.

The study also found that technology strengthens social and personal competencies among Islamic Education teachers. Digital communication platforms and social media facilitate better interaction and collaboration between teachers, students, parents, and educational communities. Through these platforms, teachers can share information more effectively and support collaborative learning activities. In addition, teachers are encouraged to demonstrate ethical and responsible behavior in using digital media, particularly in maintaining Islamic values in online communication and learning activities.¹⁹ However, despite the positive impacts of technology, several challenges remain, including limited digital literacy among teachers, inadequate technological infrastructure, and unequal internet access in some regions. These obstacles indicate that the successful implementation of technology in Islamic Education requires institutional support, adequate facilities, and continuous digital training for teachers.

The discussion highlights that technology has transformed the role of Islamic Education teachers from traditional instructors into facilitators of digital learning and

¹⁸ A W Surtahman, "The Impact of Artificial Intelligence (AI) in Lifelong Learning Cyberogy from Islamic and Western Perspectives," *Global Journal Al Thaqafah* 15, no. 1 (2025): 189–208, <https://doi.org/10.7187/GJAT072025-12>.

¹⁹ Suyadi, "Learning Taxonomy of Islamic Education: The Development of Aql and the Brain in Quran from a Neuroscience Perspective," *Millah Journal of Religious Studies* 21, no. 2 (2022): 361–410, <https://doi.org/10.20885/millah.vol21.iss2.art3>.

lifelong learning.²⁰ Technology not only improves teaching effectiveness but also supports sustainable professional development and educational innovation. Moreover, the integration of technology into Islamic Education must maintain a balance between technological advancement and Islamic moral values to ensure that character and spiritual development remain central in the learning process. The novelty of this study lies in its comprehensive analysis of how technology enhances all dimensions of Islamic Education teachers' competencies while simultaneously integrating digital transformation with Islamic educational values. Therefore, this study contributes to a deeper understanding of the strategic role of technology in improving the quality of Islamic Education in the digital era,

Findings and Discussion on Technology in Islamic Education Teacher Competence

No	Aspects of Teacher Competence	Role of Technology	Impact on Islamic Education Learning
1	Pedagogical Competence	Use of LMS, Google Classroom, Zoom Meeting, multimedia applications, and interactive learning media	Creates interactive, flexible, and student-centered learning environments; increases students' motivation and engagement
2	Professional Competence	Access to e-books, scientific journals, webinars, online courses, and digital training programs	Enhances teachers' knowledge, teaching skills, and continuous professional development
3	Social Competence	Utilization of social media, messaging applications, and digital communication platforms	Improves communication and collaboration between teachers, students, parents, and educational communities
4	Personal Competence	Ethical and responsible use of digital technology based on Islamic values	Encourages positive digital literacy, moral behavior, and responsible online interaction
5	Learning Innovation	Integration of interactive videos, online quizzes, and educational applications	Makes Islamic Education learning more creative, engaging, and effective
6	Challenges in Implementation	Limited digital literacy, inadequate infrastructure, and unequal internet access	Becomes an obstacle to the optimal implementation of technology in Islamic Education

²⁰ 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>.

No	Aspects of Teacher Competence	Role of Technology	Impact on Islamic Education Learning
7	Novelty of the Study	Integration of teacher competencies with digital transformation in Islamic Education	Provides a comprehensive understanding of technology's strategic role in improving Islamic Education quality in the digital era

Technology has become an essential component in modern education, particularly in improving the competencies of Islamic Education teachers in the digital era. The findings presented in the table demonstrate that digital technology contributes significantly to pedagogical, professional, social, and personal competencies. In the context of Islamic Education, teachers are no longer expected to rely solely on traditional teaching methods. Instead, they are required to integrate technological tools into the learning process to create a more engaging educational environment. The presence of digital technology has transformed educational practices and encouraged teachers to adapt to the changing needs of students. Moreover, students in the digital era are highly familiar with technology, making digital integration in education increasingly necessary. Therefore, the role of technology is not only supportive but also transformative in enhancing the quality of Islamic Education learning.

The enhancement of pedagogical competence through technology is one of the most significant findings of this study. Digital platforms such as Google Classroom, Zoom Meeting, and Learning Management Systems (LMS) enable teachers to organize learning activities more effectively and systematically. These technologies allow teachers to deliver learning materials through videos, presentations, quizzes, and other multimedia content that can attract students' attention. As a result, students become more motivated and actively involved in the learning process. In Islamic Education, interactive digital media can simplify the explanation of complex religious concepts and make learning more understandable.²¹ Technology also supports flexible learning because students can access materials anytime and anywhere. Consequently, pedagogical competence is strengthened through innovative teaching strategies supported by digital technology.

In addition to pedagogical competence, technology significantly contributes to the professional competence of Islamic Education teachers. Through digital resources, teachers can access a wide range of information related to Islamic studies, educational theories, and teaching methodologies. Online journals, e-books, webinars, and virtual training programs provide opportunities for continuous professional development. Teachers are able to improve their knowledge and teaching skills without being limited by geographical barriers. Furthermore, participation in online seminars and

²¹ 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>.

professional communities allows teachers to exchange ideas and experiences with educators from different regions and countries. This continuous learning process helps teachers remain updated with current educational trends and innovations. Therefore, technology serves as a medium for lifelong learning and sustainable professional growth among Islamic Education teachers.

Technology also strengthens the social competence of teachers by facilitating communication and collaboration within the educational environment. Social media platforms, messaging applications, and online discussion forums help teachers maintain effective communication with students and parents. Through these platforms, teachers can share learning information, assignments, and educational guidance more quickly and efficiently.²² Collaboration between teachers and parents becomes easier because communication is no longer limited to face-to-face interaction. In addition, online learning communities enable teachers to collaborate with fellow educators in developing teaching strategies and educational materials. This collaboration creates a supportive academic environment that contributes to the improvement of educational quality. As a result, technology enhances social relationships and cooperation among educational stakeholders.

Another important aspect discussed in the table is the role of technology in developing teachers' personal competence. In the digital era, teachers are expected to become role models in the ethical and responsible use of technology. Islamic Education teachers, in particular, must demonstrate digital behavior that reflects Islamic values and moral principles. Responsible use of social media, respectful communication, and critical evaluation of online information are essential components of personal competence in digital education. Teachers also need to guide students in using technology wisely and avoiding negative online behavior. This responsibility becomes increasingly important because students are highly exposed to digital media in their daily lives. Therefore, technology not only influences technical skills but also shapes ethical awareness and character development among teachers and students.

The integration of learning innovation through technology is another significant finding in this study. Digital tools such as interactive videos, educational games, online quizzes, and multimedia presentations make learning activities more interesting and enjoyable.²³ These innovations encourage active student participation and improve learning outcomes. In Islamic Education, multimedia learning can help students better understand religious practices, Islamic history, and moral values through visual and interactive experiences. Technology-based learning also promotes creativity among teachers because they are encouraged to design innovative teaching materials. Furthermore, digital learning environments provide opportunities for personalized

²² Kusumaputri, "Positioning Indonesian Islamic Higher-Education Vis-a-Vis Globalisation: Organisational-Resilience Dynamics."

²³ A B A Bakar and M R Ridho, "The Impact of Human Psychological Conditions on the Application of Islamic Law in Determining the Validity of Worship," *AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam*, 2025, https://jurnal.staialjamibjm.ac.id/index.php/AL_GHAZALI/article/view/478.

learning according to students' needs and abilities. Consequently, learning innovation supported by technology contributes to more effective and meaningful educational experiences.

Despite the many benefits of technology, this study also identifies several challenges in its implementation. One major challenge is the limited digital literacy among some Islamic Education teachers.²⁴ Not all teachers possess adequate technological skills to effectively integrate digital tools into their teaching practices. In some cases, teachers experience difficulties in operating online learning platforms and designing digital learning materials. Another challenge is the lack of technological infrastructure, such as computers, projectors, and stable internet connections, particularly in rural or underdeveloped areas. These limitations reduce the effectiveness of technology-based learning implementation. Furthermore, unequal access to digital resources creates disparities in educational quality among different regions. Therefore, institutional support and technological infrastructure development are necessary to overcome these challenges.

The findings also indicate that continuous training and professional development programs are crucial for improving teachers' digital competence. Educational institutions and governments need to provide regular digital literacy training for teachers to ensure they can effectively utilize technology in learning activities. Such training should focus not only on technical skills but also on pedagogical strategies for digital education.²⁵ Teachers need guidance on how to create engaging online learning environments and integrate Islamic values into digital learning content. In addition, mentoring programs and online professional communities can support teachers in sharing experiences and solving technological challenges collaboratively. Continuous professional development will help teachers adapt to rapid technological changes in education. Thus, training and institutional support are key factors in maximizing the benefits of technology in Islamic Education.

Another important discussion point is the balance between technological advancement and Islamic moral values. Although technology offers many educational advantages, excessive dependence on digital media may negatively affect students' character and social interaction.²⁶ Islamic Education teachers have the responsibility to ensure that technology is used in ways that support moral and spiritual development. Teachers should integrate Islamic ethics into digital learning activities

²⁴ G Anjum, "Advancing Equity in Cross-Cultural Psychology: Embracing Diverse Epistemologies and Fostering Collaborative Practices," *Frontiers in Psychology* 15 (2024), <https://doi.org/10.3389/fpsyg.2024.1368663>.

²⁵ H R'boul, "Intercultural Philosophy and Internationalisation of Higher Education: Epistemologies of the South, Geopolitics of Knowledge and Epistemological Polylogue," *Journal of Further and Higher Education* 46, no. 8 (2022): 1149–60, <https://doi.org/10.1080/0309877X.2022.2055451>.

²⁶ M O Mabruji, S Amin, and ..., "The Use of the Quran Belajar Indonesia Application in Quran Learning at Madrasah Diniyah Takmiliyah Awaliyah (MDTA) Hidayatut Tholabah, Tegalreja Village, Banjarharjo District, Brebes Regency," *AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam*, 2025, https://jurnal.staialjamibjm.ac.id/index.php/AL_GHAZALI/article/view/438.

and encourage students to use technology responsibly. For example, teachers can promote honesty, respect, and discipline in online learning environments. They can also guide students in critically evaluating online information and avoiding harmful digital content. Therefore, technology should function not only as an educational tool but also as a means of strengthening Islamic character education. The novelty of this study lies in its comprehensive analysis of the relationship between technology and the competencies of Islamic Education teachers.²⁷ Unlike previous studies that mainly focused on general educational technology, this research specifically examines the integration of digital transformation with Islamic educational values. The study highlights that technology influences not only pedagogical competence but also professional, social, and personal competencies simultaneously. This integrated perspective provides a broader understanding of how technology contributes to the overall development of Islamic Education teachers. Furthermore, the study emphasizes the importance of maintaining moral and spiritual values in digital learning environments. As a result, this research contributes to the development of more balanced and value-oriented technology integration in Islamic Education. Therefore, the findings of this study can serve as a valuable reference for educators, researchers, and policymakers in improving the quality of Islamic Education in the digital era.

²⁷ F A Rivai and N Rahmawati, "Workshop, Assistance, and Capacity Building in the Development of Teaching Materials Based on 21st-Century Learning," *AL GHAZALI: Jurnal Pendidikan Dan Pemikiran Islam*, 2025, https://jurnal.staialjamibjm.ac.id/index.php/AL_GHAZALI/article/view/470.

Conclusion

This study concludes that technology plays a significant role in enhancing the competencies of Islamic Education teachers in the digital era. The integration of digital technology into the learning process contributes positively to the development of pedagogical, professional, social, and personal competencies. Through the use of digital platforms, multimedia applications, online learning systems, and communication technologies, teachers are able to create more interactive, flexible, and student-centered learning environments. Technology also supports continuous professional development by providing access to digital educational resources, online training programs, webinars, and academic communities that help teachers improve their knowledge and teaching skills. In addition, technology strengthens communication and collaboration among teachers, students, parents, and educational institutions, thereby improving the effectiveness of the educational process. The study also emphasizes that Islamic Education teachers must demonstrate ethical and responsible use of technology in accordance with Islamic values. Despite the various benefits of technology, challenges such as limited digital literacy, inadequate technological infrastructure, and unequal internet access remain significant obstacles in some educational environments. Therefore, continuous training, institutional support, and infrastructure development are necessary to optimize the implementation of technology in Islamic Education. The novelty of this study lies in its comprehensive discussion of how technology enhances all dimensions of Islamic Education teachers' competencies while integrating digital transformation with Islamic educational values. This study highlights that technology should not only function as a learning tool but also as a medium for sustainable professional development and character education. Consequently, the findings of this research provide important insights for educators, policymakers, and educational institutions in developing effective technology-based strategies to improve the quality of Islamic Education in the digital era.

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