

TRANSFORMATION OF ISLAMIC RELIGIOUS EDUCATION LEARNING IN THE DIGITAL ERA: OPPORTUNITIES AND CHALLENGES IN ENHANCING TEACHER AND STUDENT READINESS

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Abstract

Digital transformation has significantly reshaped various aspects of education, including the teaching and learning of Islamic Religious Education (IRE). Rapid technological advancements require the adaptation of instructional strategies, teaching methods, and learning media to ensure that IRE remains relevant to the needs of students in the digital era. This study aims to analyze the transformation of IRE learning in the digital age by examining the opportunities and challenges associated with enhancing the readiness of teachers and students. The research employs a qualitative descriptive approach using a library research method through the analysis of relevant scholarly literature. The findings indicate that the digitalization of IRE offers opportunities to expand access to Islamic learning resources, enhance teachers' creativity, and increase student engagement through various digital learning platforms and media. Nevertheless, the transformation process also faces several challenges, including limited digital competence among teachers, disparities in technological infrastructure, low levels of digital literacy, and ethical issues related to technology use. Therefore, the successful implementation of digital IRE learning requires the readiness of human resources and the effective integration of technology while maintaining alignment with Islamic values and educational principles.

Keywords: Digital Transformation, Islamic Education, Digital Literacy.

INTRODUCTION

The rapid advancement of information and communication technology has brought significant changes across various aspects of human life, including the field of

education. The emergence of digital technology has transformed the ways individuals acquire, manage, and disseminate information throughout the learning process. Learning activities, which were previously dependent on conventional classrooms, printed textbooks, and face-to-face interactions between teachers and students, have gradually evolved through the use of digital platforms, including online learning, interactive media, educational applications, and Artificial Intelligence (AI). This transformation demonstrates that the digitalization of education is no longer merely a trend but has become a necessity in addressing the learning characteristics of the modern generation, who are increasingly integrated with digital technology (Junaedy et al., 2023).

In the context of Islamic Religious Education (IRE), the digital era presents both opportunities and challenges for improving teaching and learning practices. IRE plays a fundamental role in developing students who possess not only a sound understanding of Islamic teachings but also strong moral character, ethical values, and spiritual intelligence. Therefore, IRE instruction should extend beyond the delivery of theoretical Islamic concepts by providing meaningful learning experiences that are relevant to contemporary educational demands. The integration of digital technology offers opportunities to expand access to diverse Islamic learning resources, including the Qur'an, Hadith, Islamic literature, and innovative digital learning media that can enhance students' understanding and engagement (Kahfi & Azis, 2026).

Despite the numerous opportunities offered by digital technology, the implementation of IRE learning continues to face several challenges. In many educational settings, IRE instruction still relies heavily on conventional teaching approaches characterized by lecture-based methods and one-way communication between teachers and students. Such practices often limit students' active participation and reduce opportunities for independent exploration of learning materials. Furthermore, the limited use of diverse instructional media has contributed to lower levels of student engagement, particularly among learners who have grown up in highly digitalized environments. Consequently, IRE teachers are expected to design learning experiences that are more interactive, engaging, and responsive to the educational needs of today's students (Afif, 2024).

The transformation of IRE learning has therefore become essential to enable Islamic education to adapt to the demands of twenty-first-century education. This transformation extends beyond the adoption of technological devices; it also requires changes in educational perspectives, instructional strategies, and teachers' ability to integrate technology with Islamic educational values. IRE teachers are expected to possess strong pedagogical competencies alongside adequate digital literacy skills to effectively select and utilize technology in classroom instruction. At the same time, students must be equipped with the capacity to use digital technology critically, responsibly, and ethically so that technological advancements contribute positively to

both academic development and the cultivation of Islamic character and values (Afif, 2024).

This study aims to analyze the transformation of Islamic Religious Education learning in the digital era by examining the opportunities and challenges associated with its implementation. Specifically, the study explores how technological advancements can be utilized to improve the quality of IRE instruction while identifying the obstacles related to the readiness of teachers and students in adapting to digital transformation. Human resource readiness is considered a critical factor because the success of digital transformation in education depends not only on the availability of technological infrastructure but also on the ability of educators and learners to utilize technology effectively in accordance with the objectives and values of Islamic education.

RESEARCH METHOD

This study employed a library research method using a descriptive qualitative approach. This method was selected because the research focuses on reviewing and analyzing various scholarly sources related to the transformation of Islamic Religious Education (IRE) learning in the digital era, particularly the opportunities, challenges, and readiness of teachers and students in adapting to technology-based learning. Through this approach, the study seeks to examine relevant concepts, perspectives, and findings from previous research in order to develop a comprehensive understanding of the digital transformation of IRE learning (Shalehah et al., 2025).

The data sources consisted of academic literature, including peer-reviewed journal articles, books, conference proceedings, and educational policy documents related to Islamic education, educational technology, digital literacy, and the competencies of teachers and students. The selected literature was chosen based on its relevance to the research topic and its contribution to recent discussions on digital transformation in education. Data were collected through a systematic process of identifying, selecting, and reviewing references that address the relationship between digital technology and the implementation of Islamic Religious Education.

Data were analyzed using content analysis techniques by examining, classifying, and interpreting information obtained from the selected literature. The analysis involved several stages, including collecting relevant references, identifying key concepts, comparing findings from previous studies, and synthesizing a comprehensive understanding of the transformation of IRE learning in the digital era. The findings were then presented descriptively to explain the forms of digital transformation in Islamic Religious Education, the opportunities created by technological advancement, the challenges encountered during implementation, and strategies for enhancing the readiness of teachers and students to adapt effectively to the evolving educational technology landscape.

RESULT AND DISCUSSION

1. Transformation of Islamic Religious Education Learning in the Digital Era

The rapid advancement of digital technology has significantly transformed the learning paradigm of Islamic Religious Education (IRE), particularly in the patterns of interaction between teachers and students. Traditionally, IRE instruction was predominantly based on a teacher-centered learning approach, in which teachers served as the primary source of knowledge while students assumed passive roles as recipients of information. However, this paradigm has gradually shifted toward a student-centered learning approach that positions students as active participants in the learning process. Through this approach, students are encouraged to seek, comprehend, analyze, and develop Islamic knowledge by utilizing a wide range of learning resources. This paradigm shift requires IRE teachers to move beyond their conventional role as knowledge transmitters and become facilitators who guide students in constructing a more critical, contextual, and relevant understanding of Islamic teachings in response to contemporary societal developments (Muhamad Syarif Hidayatullah, 2025).

The integration of digital technology into IRE instruction represents one of the most tangible manifestations of educational transformation in the digital era. Technology is no longer viewed merely as a supplementary instructional tool but has become an essential component of learning strategies designed to create more engaging and meaningful educational experiences. By incorporating digital technologies, teachers can implement various interactive learning activities, including visual media, simulations, digital quizzes, and online discussion forums. These innovations provide students with greater flexibility to learn both inside and outside the classroom. Furthermore, technology enables conventional IRE materials to be redesigned into more creative and interactive formats, making Islamic learning more accessible and appealing to learners who have grown up in highly digitalized environments (Afif, 2024).

One significant example of technological integration in IRE learning is the use of Learning Management Systems (LMSs). These platforms enable teachers to organize and manage instructional activities systematically, including distributing learning materials, assigning tasks, facilitating discussions, and conducting assessments. Through LMSs, students are able to access instructional content anytime and anywhere, thereby promoting independent learning according to their individual learning needs and abilities. Moreover, LMS platforms contribute to a more organized learning environment because all instructional activities and learning records are stored digitally, facilitating both monitoring and evaluation.

In addition to LMSs, instructional videos have become one of the most effective digital media for improving students' understanding of Islamic Religious Education. Topics such as Islamic history, worship practices, the exemplary life of the Prophet Muhammad, and the interpretation of Qur'anic verses and Hadith can be presented through combinations of images, narration, animations, and audiovisual elements, making the learning process more engaging and easier to comprehend. Video-based learning also assists students in understanding abstract Islamic concepts by presenting them in more concrete and visually meaningful ways. Likewise, the availability of digital Islamic e-books enables students to access a broader range of religious references beyond the limitations of printed textbooks available in schools (Kahfi & Azis, 2026).

The transformation of IRE learning has also been accelerated through the utilization of various educational applications and interactive learning media. Educational applications support the teaching of the Qur'an, Hadith, Islamic jurisprudence (fiqh), Islamic creed and ethics (aqidah akhlak), and Islamic cultural history. Interactive learning tools, including digital quizzes, educational games, and online discussion platforms, have proven effective in increasing student engagement throughout the learning process. The incorporation of these media provides instructional diversity that reduces learning fatigue while encouraging students to participate more actively in understanding Islamic knowledge and values (Muhamad Syarif Hidayatullah, 2025).

Recent developments in the transformation of IRE learning have also been marked by the emergence of Artificial Intelligence (AI) as an innovative educational technology. AI offers numerous opportunities to support both teachers and students in various instructional activities, including information retrieval, instructional material development, automated assessment, question generation, and personalized learning experiences tailored to individual student needs. Within the context of Islamic Religious Education, AI can serve as a complementary learning resource that broadens access to knowledge while fostering instructional creativity. Nevertheless, the implementation of AI requires continuous guidance and supervision from teachers to ensure that its use remains ethical, responsible, and aligned with the moral values and educational principles of Islam (Sirdau Sisilawati, 2026).

Overall, the transformation of Islamic Religious Education in the digital era demonstrates that digital technology possesses substantial potential to enhance the quality of Islamic education. This transformation extends beyond the adoption of digital devices and platforms, encompassing broader changes in instructional approaches, pedagogical strategies, and the evolving roles of all stakeholders involved in the educational process. The success of this transformation ultimately depends on teachers' pedagogical ability to integrate technology effectively into learning while ensuring that students are adequately prepared to utilize digital technology as a

means of acquiring knowledge, developing critical thinking skills, and strengthening their Islamic character and values.

2. Opportunities of Digitalization in Islamic Religious Education Learning

a. Enhancing Access to Islamic Learning Resources

One of the greatest opportunities presented by digital transformation in Islamic Religious Education (IRE) is the expanded access to Islamic learning resources for students. Whereas students previously relied primarily on textbooks and classroom instruction, technological advancements now enable them to access a wide range of Islamic knowledge through diverse digital resources. Learning platforms, digital libraries, electronic books (e-books), Islamic applications, and web-based educational resources provide students with opportunities to deepen their understanding of Islam without the limitations of time and place (Sirdau Sisilawati, 2026).

In Qur'anic learning, digital technology facilitates students' access to recitation, translation, interpretation (tafsir), and the meanings of Qur'anic verses through various digital Qur'an applications equipped with translation, commentary, and murottal audio features. These technologies promote a more interactive learning experience than conventional text-based learning alone. Similarly, in Hadith studies, students can access extensive collections of Hadith, scholarly commentaries, and thematic discussions that enrich their understanding of the primary sources of Islamic teachings (Nazilla et al., 2025).

In the fields of fiqh (Islamic jurisprudence), aqidah akhlak (Islamic creed and ethics), and Islamic history, digital technology also broadens students' access to diverse educational resources. Practical aspects of fiqh, particularly those related to worship practices, can be presented through tutorial videos and interactive simulations, making them easier to understand. Likewise, aqidah akhlak can be taught using contextual digital content that reflects everyday life, while Islamic history can be explored through documentaries, animations, and other interactive visual media that enhance students' interest and engagement (Sirdau Sisilawati, 2026).

Greater access to Islamic learning resources through digital technology also promotes self-directed learning. Students are no longer dependent solely on teachers for information but are encouraged to actively search for, compare, and synthesize knowledge from multiple sources. This learning environment strengthens students' digital literacy while fostering critical thinking skills necessary for evaluating the credibility and authenticity of religious information.

Nevertheless, the increased availability of digital Islamic resources must be accompanied by adequate digital literacy and continuous guidance from teachers. Not all religious information available on the internet is accurate or reliable. Therefore, students should be equipped with the ability to distinguish credible Islamic sources from inaccurate or misleading information that may contradict authentic Islamic

teachings. In this regard, IRE teachers continue to play a crucial role in guiding students toward moderate, evidence-based, and academically sound understandings of Islam that are consistent with the objectives of Islamic education.

b. Enhancing the Creativity and Innovation of Islamic Religious Education Teachers

Digital transformation provides significant opportunities for Islamic Religious Education teachers to enhance their creativity and innovation in designing instructional activities. Technological advancement not only facilitates the delivery of instructional content but also enables teachers to develop more diverse, engaging, and student-centered learning experiences that correspond to the characteristics of learners in the digital era. Teachers who previously relied predominantly on textbooks and lecture-based instruction can now utilize various technology-based learning media that encourage active and interactive learning experiences (Shalehah et al., 2025).

Digital media allow teachers to present Islamic learning materials in more innovative formats. For example, Qur'anic and Hadith instruction can be delivered through educational videos incorporating recitation, interpretation, and visual explanations of verses. Islamic history can be presented through animations and short documentaries that help students better understand historical events and the moral lessons embedded within them. Likewise, fiqh and aqidah akhlak materials can be delivered through simulations, illustrations, and case studies closely related to students' everyday experiences, thereby making learning more contextual and meaningful (Nazilla et al., 2025).

In addition to instructional videos, teachers can employ various interactive educational applications to increase student participation during learning activities. Digital quizzes, educational games, and online learning platforms contribute to more enjoyable and less monotonous classroom environments. Through these technologies, students become active participants rather than passive listeners, engaging in discussions, problem-solving activities, and self-assessment that deepen their understanding of Islamic Religious Education (Shalehah et al., 2025).

Teachers' creativity in utilizing digital technology also reflects a transformation in their professional role. Rather than functioning solely as providers of information, teachers become designers of meaningful learning experiences that connect Islamic teachings with students' real-life contexts. Consequently, the ability to select, develop, and integrate appropriate digital media has become an essential component of teachers' professional competence in contemporary education. When implemented appropriately, technology can reinforce Islamic educational values while supporting the broader objective of character development (Muhamad Syarif Hidayatullah, 2025).

Despite these opportunities, enhancing teachers' creativity and innovation through digital technology requires continuous professional development and capacity-building initiatives. Not all teachers possess equal competencies in designing

digital learning resources; therefore, systematic efforts to strengthen teachers' digital literacy and technological skills remain essential. The integration of technology should not merely follow technological trends but should constitute a strategic pedagogical approach for creating more effective, engaging, and relevant Islamic Religious Education.

c. Enhancing Student Engagement and Learning Motivation

Digital transformation in Islamic Religious Education offers substantial opportunities to improve students' engagement and learning motivation throughout the instructional process. Contemporary learners have grown up in technology-rich environments, making technology-supported learning approaches more compatible with their learning preferences and experiences. The integration of digital media into IRE instruction creates more engaging learning environments by allowing students to interact not only with teachers but also with diverse visual, audio, and interactive learning resources (Kahfi & Azis, 2026).

Compared with conventional instruction, digital media provide richer and more varied learning experiences. Learning materials that were previously delivered primarily through textbooks and lectures can now be transformed into instructional videos, animations, infographics, simulations, and interactive applications. These multimedia formats facilitate students' understanding of Islamic concepts while making learning more attractive and accessible. For example, practical worship procedures can be demonstrated through instructional videos, whereas Islamic history can be presented through animations and documentaries that vividly illustrate historical events (Afif, 2024).

Digital technology also encourages students to participate more actively in learning activities. Through online platforms, students can engage in virtual discussions, complete interactive quizzes, provide feedback on instructional materials, and independently explore additional learning resources. Such activities transform learning from a one-way transmission of knowledge into a dynamic interaction among teachers, students, and digital learning resources. As a result, students' curiosity increases, and they become more actively involved in understanding Islamic Religious Education.

Beyond improving engagement, digital media also contribute to enhancing students' learning motivation. Creatively designed instructional activities reduce boredom while providing more enjoyable learning experiences. When students find learning interesting and meaningful, they are more likely to develop stronger motivation to participate actively and master the instructional content. This demonstrates that digital technology can serve as an effective strategy for fostering learning interest, particularly among students with visual, auditory, and kinesthetic learning preferences (Manshur et al., 2023).

Nevertheless, the successful implementation of digital media in Islamic Religious Education requires careful instructional planning by teachers. Technology alone does not automatically improve learning motivation unless it is supported by appropriate pedagogical approaches. Teachers must carefully select digital media that align with instructional objectives and the characteristics of the learning materials to ensure meaningful educational outcomes. Well-planned technology integration can ultimately contribute to more active, creative, and engaging Islamic Religious Education while strengthening students' understanding and appreciation of Islamic values in the digital era.

3. Challenges of the Transformation of Islamic Religious Education in the Digital Era

a. Limited Digital Competence of Islamic Religious Education Teachers

One of the primary challenges in transforming Islamic Religious Education (IRE) in the digital era is the limited digital competence of many IRE teachers. Rapid technological advancement requires teachers not only to operate digital devices but also to effectively integrate technology into instructional strategies and pedagogical practices. However, in practice, many teachers continue to encounter difficulties in utilizing digital platforms, educational applications, and interactive learning media as integral components of the teaching and learning process (Nazilla et al., 2025).

In many cases, technology is still used merely as a presentation tool, such as displaying PowerPoint slides or playing instructional videos without incorporating more innovative pedagogical strategies. This condition indicates that technology has not yet been fully utilized to create active, engaging, and meaningful learning experiences. Ideally, digital technology should function not simply as a substitute for conventional instructional media but as a means of fostering creativity, collaboration, and student engagement in Islamic Religious Education (Shalehah et al., 2025).

Strengthening teachers' digital competence has therefore become a crucial prerequisite for the successful implementation of digital transformation in education. Continuous professional development programs should equip teachers with competencies in educational technology, digital content development, and the selection of technological tools that align with instructional objectives. These technological competencies must be integrated with sound pedagogical knowledge and a comprehensive understanding of Islamic values to ensure that technology contributes effectively to both academic learning and character development.

b. Digital Infrastructure Disparities

In addition to teachers' competencies, digital transformation in Islamic Religious Education faces significant challenges related to unequal technological infrastructure. Effective technology-enhanced learning requires adequate facilities, including reliable internet connectivity, computers or laptops, projectors, and access

to digital learning platforms. However, educational institutions differ considerably in terms of technological resources, resulting in unequal opportunities for implementing digital learning (Sirdau Sisilawati, 2026).

Limited internet access remains one of the most common obstacles, particularly in geographically remote or underserved regions. Unstable internet connections frequently disrupt online learning activities and reduce the effectiveness of digital instructional media. Furthermore, limited access to technological devices presents additional challenges for schools and madrasahs with constrained financial resources. Many students also lack personal digital devices capable of supporting technology-based learning activities.

The disparity between urban and rural educational institutions clearly illustrates the persistence of the digital divide. Schools located in urban areas generally enjoy better technological infrastructure than those in remote regions, creating inequalities in the quality of digitally supported Islamic Religious Education. Consequently, efforts to transform Islamic education should be accompanied by policies that promote equitable technological infrastructure so that all students have equal opportunities to benefit from digital educational innovations.

c. Low Levels of Students' Digital Literacy

Students' ability to use digital technology effectively constitutes another important factor influencing the success of digital transformation in Islamic Religious Education. Although most young people are familiar with digital devices in their daily lives, technological familiarity does not necessarily translate into strong digital literacy skills. Many students are capable of using technology to access information and entertainment but still lack the critical skills required to evaluate the accuracy, relevance, and credibility of digital information (Muhamad Syarif Hidayatullah, 2025).

Within the context of Islamic Religious Education, insufficient digital literacy becomes particularly problematic when students seek religious information from online sources. The abundance of digital Islamic content increases the possibility that students will encounter inaccurate, unsubstantiated, or ideologically biased information that contradicts authentic and moderate Islamic teachings. Without adequate critical thinking skills, students may readily accept such information without verifying the credibility of its sources.

For this reason, strengthening digital literacy should become an integral component of Islamic Religious Education in the contemporary era. Students need systematic guidance to develop the ability to use technology intelligently, critically, and responsibly. Accordingly, IRE should not only enhance students' understanding of Islamic teachings but also cultivate their capacity to evaluate digital information wisely and ethically in accordance with Islamic values.

d. Ethical Challenges and Islamic Values

The rapid development of digital technology also presents ethical challenges in preserving Islamic values throughout the educational process. The ease with which information can be disseminated through the internet has enabled unrestricted access to a vast range of religious content by students and the broader public. However, not all of this information originates from credible and accountable sources. The widespread circulation of inaccurate religious interpretations, misinformation, and content promoting intolerance represents a significant risk that must be addressed in the implementation of digital learning (Sambara et al., 2026).

Beyond issues related to information quality, technology may also contribute to various forms of misuse, including excessive dependence on digital devices, unethical behavior in online communication, and the inappropriate use of technology for purposes unrelated to education. These challenges demonstrate that technological competence must be accompanied by character education and the cultivation of ethical awareness among students.

Islamic Religious Education plays a vital role in providing students with moral guidance and ethical principles for navigating the complexities of the digital age. The development of character, digital ethics, and critical information literacy should therefore become essential components of IRE instruction. Digital technology can make substantial contributions to Islamic education when it is utilized responsibly, balanced with ethical considerations, and consistently guided by the principles and values of Islam.

4. Strategies for Enhancing Teacher and Student Readiness in Digital Islamic Religious Education Learning

a. Strengthening the Digital Competence of Islamic Religious Education Teachers

The successful transformation of Islamic Religious Education (IRE) in the digital era largely depends on teachers' readiness to utilize technology effectively. IRE teachers are expected not only to operate digital technologies but also to understand how these technologies can be integrated into instructional practices to achieve learning objectives. Digital competence has become an essential component of teachers' professional competence, as technology increasingly shapes the ways students access, process, and construct knowledge (Kahfi & Azis, 2026).

One of the most effective strategies for strengthening teachers' digital competence is the implementation of continuous professional development programs focused on educational technology. Such training should extend beyond technical skills in operating digital devices to include the design of technology-enhanced learning experiences. Teachers should acquire competencies in using learning management systems, developing interactive instructional media, managing digital

classrooms, and integrating emerging technologies such as Artificial Intelligence (AI) into teaching and learning activities.

In addition to formal training, IRE teachers should continuously develop their creativity in designing digital learning resources. Instructional videos, digital modules, infographics, interactive quizzes, and application-based learning materials can create more engaging learning environments that correspond to the characteristics of contemporary learners. These digital resources should serve not only as instructional materials but also as tools for promoting interaction, collaboration, and meaningful learning experiences.

The integration of technology into Islamic Religious Education must also remain grounded in sound pedagogical principles and Islamic values. Technology should be viewed as a means of enhancing educational processes rather than an end in itself. Teachers must ensure that technological innovations support character education, promote authentic understanding of Islamic teachings, and foster students' religious attitudes and moral development. The combination of technological competence, pedagogical expertise, and Islamic educational values forms the foundation for delivering high-quality digital Islamic Religious Education.

b. Developing Students' Digital Literacy

Students' readiness for digital Islamic Religious Education depends not only on their ability to use technological devices but also on their capacity to evaluate and utilize information wisely. Digital literacy has become an essential competence that enables students to use technology productively, critically, and responsibly. Within the context of Islamic education, digital literacy extends beyond technical proficiency to include the application of ethical and moral values in digital environments.

The development of students' digital literacy can be achieved through instructional practices that encourage the critical use of technology. Students should be guided not merely to accept information obtained from the internet but also to analyze its sources, content, credibility, and underlying intentions. Critical thinking skills are particularly important in enabling students to evaluate digital information, including religious content that may not always be based on authentic Islamic scholarship (Junaedy et al., 2023).

Within Islamic Religious Education, teachers play a crucial role in guiding students toward reliable and authoritative Islamic sources. Students should be introduced to strategies for evaluating the credibility of digital resources, distinguishing scholarly works from personal opinions, and avoiding the dissemination of unverified religious information. Such guidance is increasingly important because digital technology provides unrestricted access to religious content of varying quality and reliability.

The development of digital literacy should also emphasize ethical behavior in digital environments. Students need to recognize that activities conducted online are subject to the same moral principles that govern interactions in everyday life. Respecting differences of opinion, using appropriate language in digital communication, and taking responsibility for the information shared online represent important manifestations of Islamic ethical values in the contemporary digital world.

c. Developing Innovative Learning Models for Islamic Religious Education

The digital transformation of Islamic Religious Education requires instructional models that optimize the use of technology while simultaneously promoting active student participation. Technology becomes more meaningful when integrated into pedagogical approaches that address the demands of twenty-first-century education. Innovative learning models encourage students not only to receive information but also to investigate, analyze, and construct knowledge independently (Nazilla et al., 2025).

One instructional model that is particularly suitable for digital IRE is blended learning, which combines face-to-face instruction with technology-mediated learning. This approach provides students with greater flexibility to access digital learning resources while preserving the essential role of direct interaction between teachers and students. In Islamic Religious Education, blended learning may involve providing digital learning materials before classroom instruction, conducting in-class discussions, and administering assessments through digital platforms.

Another relevant instructional approach is Project-Based Learning (PjBL), which enables students to acquire knowledge through authentic projects connected to real-world contexts. Within Islamic Religious Education, students may develop digital projects such as Islamic educational videos, da'wah content, presentations on Islamic history, or social media campaigns promoting Islamic moral values. This instructional model not only enhances students' understanding of learning materials but also develops creativity, collaboration, communication, and problem-solving skills (Manshur et al., 2023).

Problem-Based Learning (PBL) also represents an effective alternative for developing students' critical thinking abilities. Through this model, students are encouraged to analyze contemporary issues related to Islamic values in everyday life, including challenges emerging within digital environments. Such an approach enables learners to connect Islamic Religious Education with social realities while strengthening their capacity to make informed decisions based on Islamic ethical principles (Kahfi & Azis, 2026).

Ultimately, the development of technology-enhanced Islamic Religious Education requires a balance between digital innovation and the fundamental objectives of Islamic education. Technology can become an effective instrument for

creating more engaging, interactive, and contextually relevant learning experiences when implemented through appropriate pedagogical approaches. By strengthening teachers' digital competence, enhancing students' digital literacy, and implementing innovative instructional models, the digital transformation of Islamic Religious Education can be carried out more effectively and sustainably.

CONCLUSION

The transformation of Islamic Religious Education (IRE) learning in the digital era represents a fundamental change that extends beyond the use of technology as an instructional medium. It also involves transformations in learning strategies, teaching methods, and students' educational experiences. The advancement of digital technology has created opportunities for IRE learning to become more flexible, interactive, and contextual through the utilization of various digital learning resources, including Learning Management Systems (LMS), instructional videos, Islamic e-books, educational applications, interactive media, and Artificial Intelligence (AI)-based technologies. This transformation has encouraged a shift in the learning paradigm from teacher-centered instruction toward a more student-centered approach that emphasizes active student participation.

The utilization of digital technology provides various opportunities to improve the quality of Islamic Religious Education, including expanding access to Islamic learning resources, enhancing teachers' creativity and innovation, and increasing students' engagement and motivation throughout the learning process. However, this transformation continues to encounter several challenges, such as limited digital competence among some IRE teachers, inadequate technological infrastructure, insufficient digital literacy among students, and ethical issues related to the use of religious information in digital spaces. These challenges demonstrate that the success of digital learning transformation does not solely depend on technological availability but also on the readiness and capacity of all educational components involved.

Enhancing the readiness of teachers and students is therefore a crucial factor in establishing effective digital Islamic Religious Education. Teachers need to strengthen their digital competence through continuous training, the development of digital learning resources, and the ability to integrate technology with pedagogical approaches and Islamic values. Students must also be equipped with digital literacy skills to enable them to utilize technology critically, wisely, and responsibly. Through the implementation of innovative learning models such as blended learning, project-based learning, and problem-based learning, technology can serve as a means of creating IRE learning that is more relevant to contemporary needs while maintaining the fundamental principles of Islamic education. Ultimately, digital transformation in Islamic Religious Education should be directed toward developing a generation that possesses not only technological competence but also strong religious understanding,

moral character, and ethical awareness in responding to the challenges of the digital era.

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