

THE TRANSFORMATION OF ISLAMIC EDUCATION THROUGH TECHNOLOGY INTEGRATION IN THE DIGITAL ERA

St. Wardah Hanafie Das¹, Muhammad Zaid², Muminayah³, and Rahmaniah⁴

¹ Universitas Muhammadiyah Parepare, Indonesia

² Universitas Muhammadiyah Parepare, Indonesia

³ Universitas Muhammadiyah Parepare, Indonesia

⁴ Universitas Muhammadiyah Parepare, Indonesia

Corresponding Author:

St. Wardah Hanafie Das,

Department of Islamic education, Faculty of Faculty of Islamic Religion, Universitas Muhammadiyah Parepare.
Jalan Jenderal Ahmad Yani KM 6, Kelurahan Bukit Harapan, Kecamatan Soreang, Kota Parepare, Provinsi Sulawesi Selatan, Indonesia

Email: wardahhadas@gmail.com

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Abstract

The rapid advancement of technology in the digital era has fundamentally transformed various aspects of human life, particularly in the way information is created, stored, and disseminated. In the context of Islamic education, this digital transformation presents both significant opportunities and complex challenges. This study explores the urgency of adapting Islamic education to technological progress to ensure its relevance for "digital native" generations. The findings indicate that digital technology serves as a powerful tool to expand accessibility to Islamic teachings through e-learning, mobile applications, and online platforms, while also fostering 21st-century skills such as critical thinking and digital literacy. However, this shift necessitates rigorous oversight to combat the spread of inaccurate or distorted content that may conflict with Islamic principles. This research provides a conceptual framework for integrating technology into Islamic Religious Education (PAI) and identifies strategic solutions to overcome the barriers of digital transformation, aiming to produce a generation that is both spiritually grounded and technologically proficient.

Keywords: Digital Era, Educational Transformation, Islamic Education



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INTRODUCTION

Technological advancements in the digital era have brought profound changes to various aspects of life (Zarif, 2020). The digital era represents a period characterized by significant progress across all sectors of existence toward a digitized state (Hadiati et al., 2025). This era offers various benefits, such as assisting in the creation, modification, storage, delivery, and dissemination of information rapidly, efficiently, and with high quality (Abidin et al., 2025). Information in this era is freely available in cyberspace, allowing anyone to access it without the constraints of space and time (Wahid et al., 2025). Boundaries have vanished following the emergence of digital systems (Niu, 2023). Individuals, particularly those born as digital natives, tend to seek information primarily through the internet.

In recent decades, the development of digital technology has brought significant shifts in various fields, including education (Ritonga et al., 2025). Within this context, Islamic education—as a vital component in shaping the character and spirituality of the ummah—faces both immense opportunities and major challenges in responding to this transformation (Putra et al., 2019). This shift opens doors for Islamic education to expand the scope of dakwah (outreach) and the teaching of Islamic values in ways that are more relevant and accessible to the generation growing up in the digital age.

Islamic education in the digital era offers unlimited opportunities to increase accessibility, develop innovative learning methods, and strengthen religious understanding (Rabbaniyah & Amirullah, 2021). The use of digital technology can serve as a powerful tool to bridge educational gaps and reinforce religious comprehension within an increasingly globally connected society (Asmendri et al., 2024). Furthermore, digital technology provides opportunities to broaden access to knowledge, including Islamic studies, through media such as learning applications, e-learning, and online platforms (Zaman & Fajriana, 2025). However, on the other hand, the utilization of this technology requires careful adaptation to ensure that Islamic values remain preserved and are not distorted by the negative influences of the digital world.

Despite the progress of digital technology, various challenges must be addressed (Parinduri & Ibarra, 2025). One such challenge is the authenticity and reliability of content delivered through digital platforms (Abitolkha, 2022). In an era where information is rapid and abundant, the spread of incorrect, inaccurate, or non-compliant content with Islamic teachings can easily occur (Malla et al., 2023). Consequently, there is a need for stricter supervision and verification of content to ensure that what is disseminated through digital technology aligns with Islamic principles.

Therefore, this transformation is essential to ensure that Islamic education can produce a generation that not only understands religious teachings but also possesses 21st-century skills, such as critical thinking, digital literacy, and innovation (Cahyadi et al., 2025). This study is expected to provide a conceptual understanding of the urgency for Islamic education to adapt to digital technological advancements, identify the integration of technology in Islamic Religious Education (PAI) learning, and explore the challenges and solutions inherent in the transformation of Islamic Education in the digital era.

RESEARCH METHOD

The research method utilized in this study is a qualitative approach, specifically employing a library research (desk research) method (Hartati et al., 2023). This method is chosen because the study aims to explore theoretical concepts and existing literature regarding the integration of technology in Islamic education (Hamdani, 2023). It focuses on understanding phenomena through the interpretation of written texts and previous findings rather than through statistical or numerical data.

Research Design

The research design is descriptive-analytical, which involves collecting, organizing, and analyzing information to provide a deep understanding of the current state of Islamic education (Indra et al., 2020). This design allows the researcher to critically examine how digital transformation affects religious pedagogy and to identify the conceptual relationship between technological advancement and the preservation of Islamic values.

Research Target/Subject

The research subjects in this study are secondary data sources and scientific literature. This includes peer-reviewed journals, academic books, and official reports that specifically address digital literacy, Islamic educational philosophy, and technological integration in the 21st century. The target is to synthesize these diverse perspectives into a cohesive framework for modern Islamic learning.

Research Procedure

The research procedure follows a systematic sequence beginning with the identification of relevant topics and the gathering of preliminary bibliography (Habiburrahim et al., 2022). After the initial search, the researcher filters the sources based on their relevance and year of publication to ensure the data is current (Azizah et al., 2023). The procedure concludes with a deep reading and comparative analysis of the selected texts to draw meaningful insights regarding the challenges and solutions in the digital era.

Instruments, and Data Collection Techniques

The data collection technique used is documentation study. This involves the systematic searching, archiving, and categorizing of various written documents (Assa'idi, 2021). The researcher collects data from online academic databases, digital libraries, and reputable open-access repositories, focusing on texts that provide empirical evidence or theoretical arguments related to Islamic Religious Education (PAI) and digital transformation.

Data Analysis Technique

The data analysis technique follows the qualitative content analysis model (Haddade et al., 2024). This process begins with data reduction, where the researcher simplifies and categorizes the gathered information into specific themes such as “innovative methods” or “content reliability.” The next step is data display, where the findings are presented in a narrative format to show logical connections (Annisa, 2020). Finally, the researcher performs conclusion drawing and verification to ensure that the findings accurately reflect the research objectives and provide valid solutions for the digital transformation of education.

RESULTS AND DISCUSSION

The Nature and Transformation of Islamic Education The transformation of Islamic education involves a restructuring of the Islamic educational system, starting from the general perception of the Muslim community and moving toward the internal structural elements of Islamic educational institutions (Jamil et al., 2025). The patterns of this transformation are based on the principle of improvement in both learning processes and outcomes. Islamic education plays a central role in enhancing individual quality by focusing on spiritual cultivation and social behavior, as well as strengthening and developing technological knowledge (Fitriyana & Merida, 2023). Normatively, Islamic education integrates ideal, social, cultural, psychological, and scientific foundations. A new paradigm in Islamic education must encompass management changes, including curriculum, human resources, the modernization of

learning facilities, and a shift from traditional to modern learning methods. Furthermore, comprehensive policies directed toward holistic change are essential.

Islamic education aims to help individuals learn and understand Islamic beliefs. This is done in an effort to develop strong character (akhlak), religious knowledge, and piety (taqwa), as well as the ability to internalize Islamic principles (Badriyah & Wardi, 2026). It also plays a crucial role in strengthening the Islamic identity of individuals and society. Islam places a high value on the transmission of knowledge and education. As found in Islamic teachings, education aims to form moral Muslim individuals who adhere to Islamic behavioral norms, possess a sound understanding of religious teachings, broad knowledge, and a steadfast commitment to their faith (Sukisno et al., 2024). Moreover, knowledge in Islam serves as vital capital for its followers to understand the substance of the primary religious sources, namely the Qur'an and the Sunnah.

Scriptural Foundations and Educational Urgency Education in Islam teaches humans to know their Creator through the teachings provided and to interact with fellow humans and other living beings. Islam was initially introduced with an educational purpose; the first revelation in QS. Al-'Alaq: 1-5 encouraged humans to reflect on the origins of their creation. The command *iqra'* (read) in the third verse encourages humans to read, both in terms of sacred texts and understanding the broader context. This instruction through *iqra'* is followed by *bi al-Qalam* (by the pen), which teaches humans to act by writing, thus signifying the process of learning and creating works. *Bi al-Qalam* is also used in the context of *dakwah* to encourage humans to acquire new knowledge that was previously unknown. Humans are blessed with superior intellectual capabilities compared to other creatures, enabling them to understand and discover new things through education.

The transformation of Islamic education is of paramount urgency in the context of contemporary developments and the needs of the Muslim community. This transformation is necessary to ensure that the young Muslim generation possesses knowledge and skills relevant to modern life. This will help them compete in various fields, including science, technology, economics, and social sectors. Shifts in society and technology have brought new challenges that require a more contemporary educational approach.

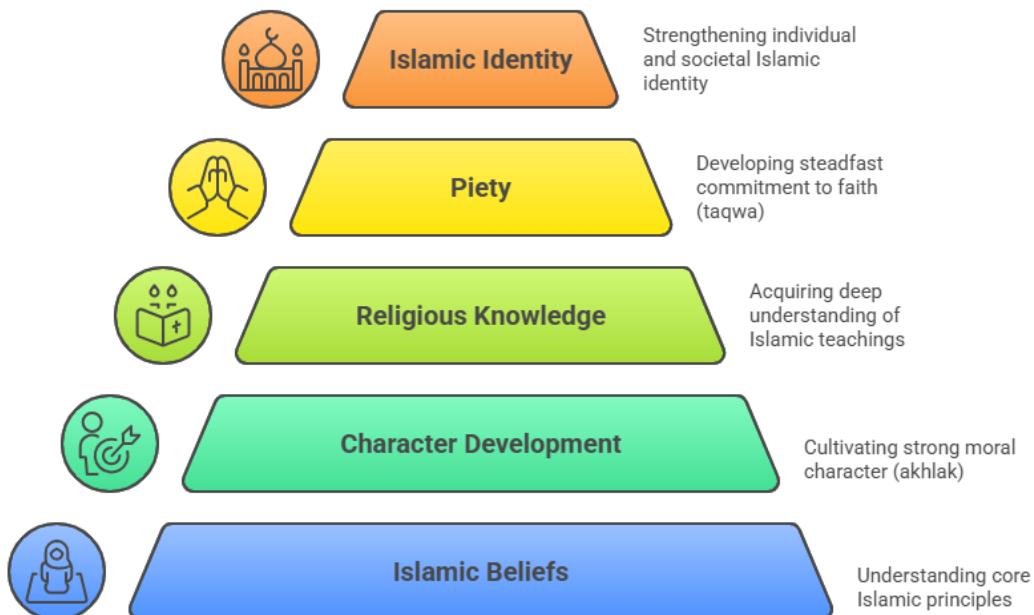


Figure 1. Islamic Education Pyramid

From the perspective of the Qur'an, the importance of knowledge, thinking, reflection, and drawing lessons from the realities of life is emphasized. This demands that Islamic

education remains dynamic and adaptive to the changes of the times rather than becoming stagnant. This is in accordance with the Word of Allah SWT in QS. Ali Imran: 190-191.

إِنَّ فِي خَلْقِ السَّمَاوَاتِ وَالْأَرْضِ وَاحْتِلَافِ اللَّيْلِ وَالنَّهَارِ لَآيَاتٍ لِأُولَى الْأَلْئَابِ ۚ ۱۹۰۰ الَّذِينَ يَذْكُرُونَ اللَّهَ قِيَامًا وَقُعُودًا وَعَلَى جُنُوبِهِمْ وَيَتَكَبَّرُونَ فِي خَلْقِ السَّمَاوَاتِ وَالْأَرْضِ رَبَّنَا مَا خَلَقْتَ هَذَا بَاطِلًا سُبْحَانَكَ فَقِنَا عَذَابَ النَّارِ ۖ ۱۹۱۱

Translation: “Indeed, in the creation of the heavens and the earth and the alternation of the night and the day are signs for those of understanding—who remember Allah while standing or sitting or [lying] on their sides and give thought to the creation of the heavens and the earth, [saying], ‘Our Lord, You did not create this aimlessly.’

Based on the aforementioned verse, it is affirmed that the signs of Allah’s greatness in the creation of the universe can only be understood by the ulul albab—those who integrate dhikr (remembrance) and tafakkur (reflection). This verse indicates that the Qur’an encourages the integration of intellectual and spiritual development within the educational process. In the context of Islamic educational transformation, this necessitates a paradigm shift from rote-memorization-based learning toward an education that fosters critical reasoning, reflectivity, and spiritual consciousness (Berlian et al., 2025). Thus, the transformation of Islamic education is highly urgent to ensure that human potential (fitrah) can be holistically optimized through an educational system that is responsive to advancements in science, technology, and modern life challenges, without abandoning the fundamental values of Islamic teachings.

Furthermore, the urgency of transforming Islamic education has become an inevitable issue amidst rapid global changes (Tantowi et al., 2025). The technological revolution, social shifts, and the complexity of economic and political challenges all influence the paradigm of Islamic education. It serves not only as a means to transfer religious knowledge but also as an institution that shapes character, morality, and leadership within society. Consequently, it is vital to align Islamic education with the needs of the era, positioning it as a relevant and effective agent of positive change.

One essential aspect of this transformation is innovation. Innovation in Islamic education encompasses various dimensions, ranging from teaching methodologies to curricula tailored to societal needs and the times (Rahmawati & Ghazali, 2023). This includes the utilization of technology in learning, updating curricula to address contemporary issues, and developing interactive and inclusive teaching methods.

The evolution of the times follows the development of educational technology. The world is currently experiencing extraordinarily rapid technological progress, requiring other components to adapt. Individuals must be encouraged to live in a new, sophisticated digital life compared to previous years (Hasanah et al., 2024). Modern advancements affect various sectors, particularly education in the digital age, which is characterized by interconnectivity and rapid information flow. Education has undergone a significant shift from traditional concepts to more modern ones through digital technology.

Evidence suggests that technology facilitates educational progress by assisting teachers in creating better environments for teaching and learning, enhancing higher-order thinking skills, training children to generate ideas through technological aid, and developing practical skills and knowledge (Suwendi et al., 2025). By integrating Information and Communication Technology (ICT) into Islamic education, learning becomes more flexible, and students gain access to diverse information sources. Furthermore, it helps students master various sciences and cultures to compete in a more challenging future educational landscape.

The transformation of PAI in the digital era includes changes in teaching methods, curriculum, and instructional tools. In previous years, PAI instruction faced several issues, particularly regarding the approaches used. In many instances, from primary to secondary levels, one-way (monologue) methods—which are often monotonous—still dominated. In higher education, while instructors are seen to have a broad role, one-way methods often fail to provide students with the space or opportunity to develop further (Purkon et al., 2025). This

contrasts with critical, interactive, and dynamic methods intended to make students active participants in learning.

In the 21st century, teachers utilize approaches such as discussions, Q&A sessions, demonstrations, interactive lectures, and the screening of relevant videos. These methods become optimal when facilitated through digital media, aiming to make students more interactive and prevent boredom. With the advent of digital devices, educational activities have become more effective and productive. Consequently, it is expected that a community will emerge capable of utilizing technology and digital media to enhance learning and empower student participation. Regarding the PAI learning approach, students previously perceived the subject as dull due to reliance on lectures and memorization. Therefore, traditional techniques must be supplemented with methods like digital demonstrations to make PAI more engaging and practical.

In addition to teaching methods, the PAI curriculum has also undergone adjustments. Curricula that formerly focused on rote learning and textual understanding are now incorporating digital elements and information technology. This adjustment is crucial to ensure that students not only understand religious teachings but are also capable of applying them within a modern life context.

A PAI educator in the modern era must not be “technologically illiterate” (gaptek) when delivering material. A strategic step in responding to modern developments is the development of digital learning media. To ensure learning strategies function effectively, teachers must design content and objectives carefully and form collaborative learning teams before the process begins. The integration in Islamic education entails harmonizing evolving worldly life—with all its technological and cultural progress—with human fitrah (nature), appropriately responding to the changing times as described in QS. al-Qashash: 77.

وَابْتَغِ فِيمَا أُنْتُكَ اللَّهُ الدَّارُ الْآخِرَةَ وَلَا تُنْسِنْ كَمَا أَحْسَنَ اللَّهُ إِلَيْكَ وَلَا تَنْهَىَ الْفَسَادَ فِي الْأَرْضِ إِنَّ اللَّهَ لَا يُحِبُّ الْمُفْسِدِينَ ٧٧

Translation of QS. al-Qashash: 77 and its Analysis: “But seek, through that which Allah has given you, the home of the Hereafter; and [yet], do not forget your share of the world. And do good as Allah has done good to you

This verse indicates that integration in Islamic education means that human fitrah (innate nature) is constantly evolving toward achieving safety in both this world and the hereafter. This implies that in Islamic education, individuals are directed to respond to all forms of temporal change; however, such worldly knowledge is concurrently aimed at attaining life in the hereafter. This integration addresses the misconception that human activities, including education and science, must be based solely on literal revelation, which often leads to a neglect of empirical reality.

Furthermore, Islamic education in the face of modern developments aims to educate the young Muslim generation to fulfill their role as khalifah (vicegerents) on earth. It is designed to instill spiritual values that are holistically understood and fully practiced, while also training students to be skilled in managing natural resources sustainably, emphasizing preservation for long-term interests (sustainable development).

Adaptation to 21st Century Technology The 21st century is synonymous with technological advancements that significantly impact the learning process. This has led to a major transformation in instructional tools; traditional primary learning sources are now supplemented with e-books, mobile applications, and e-learning platforms. These tools not only facilitate access to materials but also allow for real-time content updates. For instance, mobile applications for Al-Qur'an studies provide not only text but also features such as translations, tafsir (exegesis), and audio to assist in correct pronunciation.

The utilization of digital technology in PAI extends beyond delivery to assessment and evaluation. Assessment systems that were once manual can now be digitized, making the process faster and more accurate. Online learning platforms often feature online quizzes,

digitally downloadable assignments, and automated grading systems. This not only saves time but also provides faster feedback to students.

If traditional methods such as rote reading and memorization are maintained exclusively, there is a significant risk that students will lose interest in learning. Today's generation tends to receive information through digital, interactive, and visual media. In this regard, it is crucial to maintain a balance between tradition and technology (Mursalin et al., 2024). Using technology as a learning tool can enhance student understanding and engagement, but the underlying values and principles of Islamic education must remain firmly upheld.

The application of technology integration in PAI is not without various challenges that must be addressed (Sukma, 2021). These challenges include Limited Access to Technology. A primary challenge is limited access to technology in certain regions or schools. Underdeveloped digital infrastructure can cause a gap in access to devices and internet connectivity. To overcome this inequality, it is vital for governments and educational institutions to provide policies that support equitable access, such as providing free internet or devices for underprivileged students or installing Wi-Fi in schools. Additionally, privacy protection and data security are essential aspects of digital management.

Selection and Interpretation of Appropriate Material In the digital age, students have broad access to diverse and sometimes conflicting sources of Islamic information (Khadijah, 2021). Teachers must play an active role in selecting and interpreting materials that align with authentic Islamic values to ensure that the content presented is sahih (valid) and does not lead to misconceptions.

Management of Controversial Issues PAI often involves discussions on sensitive social, political, and moral issues (Nurlela et al., 2025). Teachers need deep expertise to deliver such materials wisely, respecting diverse views while promoting constructive dialogue. PAI should adopt a holistic approach that includes critical thinking skills, interfaith dialogue, and inclusive character building.

Need for Teacher Training and Professional Development To implement digital innovation, teachers must possess adequate skills (Laily et al., 2022). Many educators currently lack the ability to utilize digital technology effectively. Educational institutions need to conduct workshops and sustainable professional development programs to bridge this digital divide.

Negative Impact Mitigation The sophistication of digital technology also brings unavoidable negative impacts, such as ease of access to cybercrime, technological dependency, and a decline in moral ethics among youth (Ikhwan et al., 2025). Therefore, a major challenge in digital-era Islamic education is teaching children and adolescents to utilize technology wisely and responsibly, maintaining ethics (adab) in digital interactions.

CONCLUSION

The transformation of Islamic education holds paramount urgency in addressing the constantly evolving demands of the modern era and technological advancements. Within this context, Islamic education must focus on enhancing individual quality, encompassing both spiritual cultivation and technological mastery. This objective ensures that the younger Muslim generation not only understands religious teachings but also possesses skills relevant to modern life. Consequently, structural changes in educational management, curricula, and instructional methods are required to produce competent individuals whose character aligns with Islamic values.

The integration of technology into Islamic Religious Education (PAI) during the digital era provides opportunities to create superior and interactive learning environments. By leveraging technology, teaching methods can become more dynamic and engaging, replacing monotonous traditional approaches. The use of digital media and interactive learning methods increases student engagement, fostering more active participation in the learning process.

Furthermore, the PAI curriculum must be adapted to include digital elements and information technology, ensuring that students can apply religious teachings within an increasingly complex daily life. This creates an informative and inspiring learning atmosphere that encourages students to explore and innovate.

However, this transformation process faces significant challenges, such as limited access to technology, the selection and interpretation of appropriate materials, and the management of controversial issues in learning. To overcome these hurdles, it is essential to improve digital infrastructure, provide comprehensive technology training for educators, and develop policies that support technological integration in education. The transformation of Islamic education in the digital era is a crucial step toward ensuring quality education capable of responding to the ever-evolving challenges of the times.

AUTHOR CONTRIBUTIONS

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.
Author 2: Conceptualization; Data curation; In-vestigation.
Author 3: Data curation; Investigation.

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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