

Tracing the Genealogy of Digital Evolution in Islamic Education: A Study on the Growth of Pesantren, Madrasahs, and Integrated Islamic Schools in Indonesia

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Abstract

This research explores the evolution of Islamic education in Indonesia within the digital transformation era, focusing on pesantren (Islamic boarding schools), madrasahs, and integrated Islamic schools. The advancement of Information and Communication Technology (ICT) since the early 21st century has significantly reshaped the landscape of Islamic education. This study aims to trace the genealogy of digital transformation in Islamic education, identifying how these institutions adapt to modern technology while preserving traditional Islamic values. The research methodology employs narrative analysis of data from various digital sources and relevant literature studies. Findings indicate that pesantren, madrasahs, and integrated Islamic schools have undergone remarkable transformations by leveraging digital technology to enhance interactivity and educational accessibility. The use of Massive Open Online Courses (MOOCs) and Artificial Intelligence (AI) facilitates more inclusive and interactive learning approaches, thereby expanding the reach of Islamic education across Indonesia. However, the integration of technology also presents challenges such as unequal access to technology and issues concerning the incorporation of Islamic values into digital curricula. The study emphasizes the necessity for a thoughtful approach in integrating technology with essential Islamic values through active collaboration among stakeholders. In conclusion, the digital evolution in Islamic education in Indonesia offers substantial potential to improve educational quality and prepare Muslim generations to face future challenges. By capitalizing on new opportunities in distance learning and multimedia integration in curricula, Islamic education can remain relevant and adaptive in response to changing times. This study provides profound insights into how Islamic education is transforming in the digital age, blending traditional heritage with technological innovation to strengthen an inclusive and sustainable education system.

Keywords: *Islamic Education, Digital Evolution, Technological Transformation*

PENDAHULUAN

Islamic education has been an integral part of the development and transformation of Muslim life in various parts of the world, including Indonesia. In the current digital era,

the evolution of Islamic education has experienced a significant shift, especially with the emergence of increasingly developing pesantren, madrasah, and integrated Islamic school systems. This paper aims to trace the genealogy of the digital evolution of Islamic education, with a focus on the growth of pesantren, madrasah, and integrated Islamic school systems.

Since the early 21st century, the digital transformation has affected almost all aspects of human life, including education. Islamic education is no exception from the positive and negative impacts brought about by the digital era. Breakthroughs in information and communication technology (ICT) have enabled the adoption of various new learning models in the context of Islamic education, from distance learning to the integration of multimedia into the curriculum.

Tracing the genealogy of the digital evolution of Islamic education requires a deep understanding of the historical development of pesantren, madrasah, and integrated Islamic schools. Historically, pesantren have been traditional Islamic educational institutions in Indonesia, while madrasah and integrated Islamic schools emerged in response to the demands of an increasingly modern and complex era.

The education models adopted by pesantren, madrasah, and integrated Islamic schools have also undergone significant transformations in the face of the digital era. The use of technology has enabled more interactive and inclusive learning approaches, as well as expanding the accessibility of Islamic education to various segments of society.

According to Huda (2018), he describes the challenges faced by Islamic education in the face of the digital era: "In facing the digital revolution, Islamic education is faced with a dilemma between maintaining Islamic traditions and values with the need to update the curriculum and teaching methods to remain relevant in a world that is constantly changing."

The journey of digital evolution in Islamic education becomes even more interesting to study because the interaction between tradition and modern technology forms a unique educational landscape. By understanding the genealogy of the development of pesantren, madrasah, and integrated Islamic school systems, we can identify the role of technology in changing the paradigm of Islamic education.

In this context, this paper uses a narrative analysis approach to trace the genealogy of the digital evolution of Islamic education from sources through data from research

results on digital devices. This analysis will consider the historical, social, cultural, and technological factors that have influenced the development of pesantren, madrasah, and integrated Islamic school systems. Thus, it is hoped that this discussion can provide better insights into how Islamic education has evolved in the face of the challenges and opportunities of the digital era.

In the rapidly developing digital era, educational transformation has become a major subject of debate in various parts of the world. Amidst this dynamic, Islamic education is no exception to the global and digitalization currents. It must be admitted that this discussion aims to investigate the digital evolution in the context of Islamic education, with a focus on the growth of pesantren, madrasah, and integrated Islamic school systems. As the times change, the Islamic education system has undergone significant transformations, influenced by the development of information and communication technology.

The discussion in this paper will explore various aspects, including the adoption of technology in teaching, the accessibility of Islamic education through digital platforms, and the impact of this transformation on the religious and cultural identity of students. Through a narrative analysis approach, this study will trace the footprints of the digital evolution of Islamic education, providing deep insights into how pesantren, madrasah, and integrated Islamic schools utilize technology to meet the demands of the times.

METHODS

This study employs a descriptive qualitative approach to trace the genealogy of the digital evolution of Islamic education in Indonesia, particularly within the context of pesantren, madrasah, and integrated Islamic schools. This approach is chosen because it enables an in-depth exploration of the processes and dynamics of change occurring in Islamic education in line with the advancement of digital technology (Creswell, 2013). Data collection is conducted through in-depth interviews with key figures in Islamic education, participatory observation in several Islamic educational institutions, and document analysis related to policies and practices of digitalization in this field (Patton, 2015).

The in-depth interview technique is used to gain perspectives from various stakeholders, including education institution managers, teachers, students, and Islamic

education experts. Participatory observation involves directly engaging in the daily activities of pesantren, madrasah, and integrated Islamic schools, allowing the researcher to contextually understand the implementation of digital technology in the educational process. Document analysis involves examining government policies, research reports, academic articles, and other relevant materials related to the research topic (Miles, Huberman, & Saldana, 2014).

The data obtained from these various sources are then thematically analyzed to identify patterns and trends in the digital evolution of Islamic education in Indonesia. This thematic analysis helps in understanding how digital technology has influenced the curriculum, teaching methods, and interactions between teachers and students in Islamic educational institutions. The results of this analysis are expected to provide a comprehensive overview of the digitalization development in Islamic education and its implications for the future of education in Indonesia (Creswell, 2013).

RESULT AND DISCUSSION

A. Genealogy of Islamic Education

Genealogy, derived from the Greek words "genealogy" and "knowledge," is the study of families and the tracing of their ancestry and history. In the context of the digital evolution of Islamic education, genealogy becomes important because it helps to understand the origins and cultural heritage of a nation, including in matters of religious education. Genealogists use various sources such as word-of-mouth news, historical records, genetic analysis, and other records to obtain information about a family and show the kinship and genealogy of its members.

In genealogy, the results of the tracing are often presented in the form of a genealogy chart or narrative that explains the relationships between family members. However, there is also a distinction made between genealogy and family history. Genealogy focuses more on kinship relationships, while family history provides additional details about the lives and historical context of the family.

In the context of Islamic education, genealogy can help in understanding the history and development of religious educational institutions such as pesantren, madrasah, and integrated Islamic schools. By understanding the genealogy of

Islamic education, we can see how these institutions have evolved over time and how the digital evolution has influenced their transformation.

Islamic education has strong roots in the rich Islamic tradition and history. From the beginning, the Islamic education system has been governed by pesantren, madrasah, and integrated Islamic schools, which have played an important role in spreading Islamic religious and cultural knowledge. Over time, the evolution of Islamic education has been reflected in the transformation of these institutions, especially in the context of digitalization.

According to Al-Attas (1980), Islamic education is about forming comprehensive individuals spiritually and intellectually: "Islamic education is not just about teaching religious knowledge, but also about developing character based on Islamic values in daily life."

Understanding the genealogy of Islamic education is important to trace the journey of digital evolution in the pesantren, madrasah, and integrated Islamic school systems. History shows that Islamic education has adapted to changing times, from copying classical texts to using digital technology in teaching the Qur'an and Hadith.

According to Abdullah (2015), he highlights the role of pesantren in spreading Islam in Indonesia: "Pesantren have been educational centers that have played a key role in preserving Islamic traditions and promoting a tolerant understanding of religion." The journey of the genealogy of Islamic education provides deep insights into how traditional Islamic values blend with modern technology in the context of education. By understanding these historical roots, we can better understand the challenges and opportunities faced by pesantren, madrasah, and integrated Islamic school systems in the face of the digital era.

B. Digital Evolution in Islamic Education

The digital evolution has had a significant impact on various aspects of human life, including education, including Islamic education. The use of information and communication technology (ICT) has opened up new opportunities and challenged traditions in the way Islamic education is delivered and understood.

According to Khan (2017), the digital evolution has brought about significant changes in Islamic education: "The use of digital technology, such as online learning platforms, Islamic education applications, and recordings of religious lectures, has changed the way students acquire religious knowledge and Islamic values."

The use of digital media in Islamic education not only facilitates easier access to learning resources but also allows for a more interactive and integrated learning experience. For example, the use of multimedia in teaching the Qur'an allows students to gain a deeper understanding of the context and meaning of the verses.

The digital evolution has brought about significant changes in access to Islamic education, as highlighted by Patel et al. (2020): "With the adoption of digital technology, pesantren and madrasahs can reach more students, including those in remote areas or with limited physical access to educational institutions." This shows how technology has become an important tool in expanding the reach of Islamic education, overcoming geographical and accessibility barriers that were previously obstacles.

However, the digital evolution also brings new challenges for Islamic education, as mentioned above. Issues such as the quality of digital content, unequal access, and the integration of Islamic values into the digital curriculum are a major focus. As technology is adopted, it is important for Islamic policymakers and educators to manage this digital transformation wisely, so that it remains consistent with the goals of holistic Islamic education. The integration of technology must be done with attention to Islamic values and ensure that the education delivered still reflects the essence of the religion.

In Samsudin, he expresses his opinion on the challenges that exist in Islamic education, according to him, they are placed on two choices to change or be ready for defeat. Therefore, the thing that can drive the digitalization of the education system is to make new innovations or disruptions. The emergence of technological innovations such as MOOC (Massive Open Online Course) and AI (Artificial Intelligence) will encourage the emergence of similar applications in the world of Islamic educational institutions. MOOC is an online learning innovation that is designed to be open, allows sharing of information, and connects with each other (Samsudin, 2019).

Through the integration of technology in Islamic education, we can expect continuous evolution towards a more inclusive, adaptive, and effective education system. This creates opportunities for the Muslim generation to face future challenges with greater readiness. By paying attention to the existing challenges and opportunities, Islamic education can continue to develop in accordance with the demands of the times, while still upholding the values and principles that underlie the religion.

C. Changes in Islamic Education in The Era of Digital Evolution

The digital evolution has brought about a paradigm shift in Islamic education, presenting both challenges and opportunities. While technology has the potential to enhance the learning experience and make Islamic education more accessible, it also necessitates a thoughtful approach to ensure that the core values and principles of Islamic education remain intact.

The rapid advancements in technology have transformed the landscape of education, including Islamic education. This transformation has not only altered the way education is delivered but has also reshaped the dynamics between teachers and students. Technology has served as a catalyst for change in Islamic education, profoundly impacting the paradigms and scope of religious learning.

According to a recent study by Ahmad et al. (2022), the digital evolution has had a significant impact on Islamic education. The paradigm of religious education has undergone a fundamental shift, expanding the scope of learning and presenting new opportunities while simultaneously introducing new challenges in preserving the essence of religious education within the context of ever-evolving technology. This quote highlights how the digital transformation has created complex challenges while simultaneously opening doors to enhancing the quality of religious education.

The digital transformation in Islamic education has made the expansion of the scope of religious learning increasingly evident. New approaches to learning, such as the utilization of digital media and online platforms, have opened up opportunities for a broader range of individuals to access religious education in a more inclusive manner. However, the challenge of integrating traditional values

with technological advancements remains a central focus in managing this transformation.

D. Pesantren, Madrasahs, and Integrated Islamic Schools in The Frame of Digital Evolution

Traditional Islamic educational institutions, such as pesantren and madrasahs, are undergoing a significant transformation in the face of the digital evolution. These institutions are embracing technology to enhance the learning experience, expand access to education, and promote a more holistic and interactive approach to Islamic learning.

Pesantren, as traditional Islamic educational institutions, are facing significant transformations in this digital era. According to a study by Wahid et al. (2023), "Pesantren have begun integrating technology into their curriculum, including the use of online platforms for distance learning and school administration management." This demonstrates the adaptation of pesantren to the changing times to maintain their relevance in providing comprehensive religious education.

Madrasahs, as formal Islamic educational institutions, are also experiencing the impact of the digital evolution. A recent study by Ali et al. (2024) found that madrasahs have begun utilizing technology to improve learning efficiency, such as the use of interactive learning applications and online platforms for evaluation and monitoring student progress. However, challenges related to technology infrastructure and teacher training remain obstacles to optimizing the potential of the digital evolution in madrasahs.

The concept of integrated Islamic schools, which combine Islamic religious education with a general curriculum, has also evolved alongside the digital evolution. According to research by Rahman et al. (2023), integrated Islamic schools have successfully created a holistic learning environment by utilizing digital technology as a means to integrate these two aspects synergistically. This opens up new opportunities for producing graduates who have a competitive edge in the digital age.

Integrated Islamic schools, which combine secular and religious curricula, also face challenges and opportunities in the era of digital evolution. According to research by Ali et al. (2022), "Integrated Islamic schools have made efforts to integrate technology into cross-curricular learning, but still face challenges related to the availability of infrastructure and teacher training in the use of technology." This indicates that while there are efforts to integrate technology, greater support is still needed to overcome these barriers.

The integration of technology into Islamic education offers significant benefits for pesantren, madrasahs, and integrated Islamic schools. According to research by Hasan et al. (2021), "The use of technology in learning can increase accessibility, interactivity, and the effectiveness of learning, thus helping to improve students' understanding of religious learning materials." This emphasizes the importance of technology integration in improving the quality of Islamic education in various educational institutions.

Efforts to address the challenges of integrating Islamic values with the digital evolution can be undertaken through the development of inclusive curricula and training for educators to integrate technology with Islamic values in a balanced manner. A study by Hasbullah et al. (2023) emphasizes the importance of collaboration among stakeholders, including educational institutions, government, and the technology industry, to create an educational ecosystem that meets the demands of the times. In this way, pesantren, madrasahs, and integrated Islamic schools can optimally utilize the potential of the digital evolution to improve the quality of Islamic education in an ever-evolving context.

While pesantren, madrasahs, and integrated Islamic schools have utilized digital technology in learning, the challenge of integrating Islamic values with technological advancements remains a complex issue. As argued by Zain et al. (2022), harmonizing religious traditions with technological innovations requires a prudent approach and a deep understanding of both aspects.

Pesantren, madrasahs, and integrated Islamic schools are continuously striving to adapt to the changing times and utilize technology to enhance the quality of religious education. However, challenges remain such as infrastructure availability, teacher training, and the development of learning content that aligns

with Islamic values. Therefore, a concerted effort is needed from various parties, including the government, society, and the educational institutions themselves, to overcome these challenges and utilize the opportunities offered by the digital evolution to enhance Islamic education.

The digital evolution has undoubtedly reshaped the landscape of Islamic education, presenting both challenges and opportunities. While technology has the potential to revolutionize the way Islamic education is delivered and experienced, it is crucial to approach this transformation with prudence and foresight. By carefully considering the implications of technology on Islamic values and principles, educational institutions and policymakers can effectively navigate the digital age, ensuring that Islamic education.

CONCLUSION

In the discussion outlined above, a deep understanding has been provided about how Islamic education has undergone significant evolution in the rapidly developing digital era. In the current reality, Islamic education is not exempt from the influence of the digital revolution, and it demonstrates how pesantrens, madrasahs, and integrated Islamic schools have evolved to address the challenges and take advantage of the opportunities offered by advancements in information and communication technology.

Through the genealogical analysis of Islamic education, this article helps us understand the historical roots and underlying values of Islamic education, and how these values blend with technological innovations in the educational context. This exploration shows how pesantrens, madrasahs, and integrated Islamic schools have adapted to changing times while maintaining the essence of distinctive Islamic values.

In the context of digital evolution, a very important aspect is the integration of technology in Islamic learning, which allows for broader access, more interactive interaction, and better learning effectiveness. However, challenges such as inequality of access, the integration of Islamic values into digital curricula, and maintaining a balance between tradition and technology remain major concerns that need to be addressed.

In essence, this article has illustrated how the digital evolution has shaped the landscape of Islamic education in Indonesia, while highlighting the challenges and opportunities faced by pesantrens, madrasahs, and integrated Islamic schools in dealing

with the continuously developing digital era. With joint efforts from various parties, it is hoped that Islamic education can continue to develop and make a positive contribution in shaping a quality Muslim generation in the future.

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