PESANTREN TRANSFORMATION IN THE DIGITAL ERA: SOLUTION OR THREAT FOR ISLAMIC EDUCATION

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Abstrak

This study aims to provide solutions for Islamic education in addressing the transformation of pesantren in the digital era by exploring collaborative approaches to building a balanced digital pesantren, where technology integration is carried out without sacrificing Islamic values. This research design uses a qualitative method with a case study approach. The source of informants of this research is the caregivers and students of Mabadiul Ihsan, which is to explore their role in supporting the transformation of pesantren in the digital era. Data collection techniques in this study were interviews, observations, and document studies to provide a comprehensive and in-depth understanding in the research of Pesantren Transformation in the Digital Age Solutions and Threats for Islamic Education. The data analysis technique in this study uses Miles and Huberman, this analysis process involves three main stages, namely data reduction, data presentation, and conclusion drawing or verification. digital technology allows the adoption of modern learning methods, such as blended learning and distance learning, thereby increasing access and effectiveness of education. However, this change also presents challenges in the form of reduced direct interaction and the need to strengthen character education to maintain the traditional values of pesantren.
Keywords: Pesantren Transformation; Digital Era; Islamic Education; Digital Technology; Islamic Values.

Abstrak

Penelitian ini bertujuan untuk memberikan solusi bagi pendidikan Islam dalam menyikapi transformasi pesantren di era digital, dengan mengeksplorasi pendekatan kolaboratif untuk membangun pesantren digital yang berimbang, di mana integrasi teknologi dilakukan tanpa mengorbankan nilai-nilai Islam. Desain

penelitian ini menggunakan metode kualitatif dengan pendekatan studi kasus. Sumber informan penelitian ini adalah pengasuh dan santri Mabadiul Ihsan, yaitu untuk mengeksplorasi peran mereka dalam mendukung transformasi pesantren di era digital. Teknik pengumpulan data dalam penelitian ini adalah wawancara, observasi, dan studi dokumen untuk memberikan pemahaman yang komprehensif dan mendalam dalam penelitian transformasi pesantren di era digital solusi dan ancaman bagi pendidikan Islam. Teknik analisis data dalam penelitian ini menggunakan Miles dan Huberman, proses analisis ini melibatkan tiga tahap utama, yaitu reduksi data, penyajian data, dan penarikan kesimpulan atau verifikasi. Teknologi digital memungkinkan diadopsinya metode pembelajaran modern, seperti blended learning dan distance learning, sehingga meningkatkan akses dan efektivitas pendidikan. Namun perubahan ini juga menghadirkan tantangan berupa berkurangnya interaksi langsung dan perlunya penguatan pendidikan karakter untuk mempertahankan nilai-nilai tradisional pesantren.

Kata Kunci: Transformasi Pesantren; Era Digital; Pendidikan Islam; Teknologi Digital; Nilai-nilai Islam.

A. INTRODUCTION

Pesantren has become an important pillar in the world of Islamic education in Indonesia, with its role not only educating students in religious knowledge, but also shaping character and morality. As a traditional institution, pesantren have managed to maintain their identity despite various social changes. However, entering the digital era, pesantren are faced with an inevitable wave of transformation(Chuanchen & Zaini, 2023);(Saleh et al., 2022). Social changes triggered by the development of digital technology have affected almost all aspects of life, including Islamic education (Suroso et al., 2021). The internet, social media, and technology-based applications are now part of people's daily lives, including santri. This changes the way individuals interact, learn, and understand the world around them. Among pesantren, this phenomenon can be seen in the adaptation of the use of technology for online Digital-based learning in pesantren management, and da'wah through social media platforms(Suharto & Fatmawati, 2022).

However, this transformation is not entirely smooth. For pesantren, the digital era brings both opportunities and challenges. Technology offers wider access to knowledge sources and the opportunity to introduce Islamic values to a larger audience(Rusli & Nurdin, 2022). On the other hand, the freedom of information in cyberspace also poses a threat in the form of disinformation, content that is not in accordance with Islamic values, and the potential reduction of direct interaction between teachers and students, which has been the hallmark of pesantren education(Rohaeni et al., 2021). Therefore, in facing the digital era, pesantren need to reflect deeply: Can this change be a solution that strengthens the relevance of pesantren in modern society, or is it a threat to the sustainability of traditional values of Islamic education? This question is important to answer, so

that pesantren can continue to play a role as moral and ethical guardians in the midst of the rapid transformation of the times.

Pesantren is one of the oldest Islamic educational institutions in Indonesia, known as a center for religious learning, character building, and the development of Islamic values (Isbah, 2020);(Putro & Suryono, 2019). Academic literacy shows that pesantrens have a significant contribution in building the morality of the nation (Roqib, 2021). Pesantren not only function as educational institutions, but also as social institutions that are able to maintain the stability of Islamic culture in the midst of changing times(Hunim & Aimah, 2024).

However, in the digital era, pesantren are faced with great challenges to remain relevant amidst the waves of technological transformation (Darmini, 2021). Digital technology has brought significant changes to education patterns, ranging from learning methods, access to information, to social interactions (Thompson, 2013). Uncontrolled exposure to digital media can affect the mindset of the younger generation, including santri, which can reduce their understanding of traditionally taught Islamic values (Kabba, 2024); (Ghafur, 2021).

This raises concerns about the disruption of education methods based on direct interaction between teachers and students, which has been the hallmark of pesantren(Muzakky et al., 2023) With this development, the debate arises whether the digital transformation adopted by pesantren is a solution to strengthen the relevance of Islamic education in the modern era, or it is a threat to the preservation of its traditional values. In-depth and literature-based studies are needed to comprehensively understand the impact of this transformation, so that pesantren can continue to play a strategic role in forming a resilient and relevant Islamic generation in the digital era.

This research aims to provide a comprehensive solution for Islamic education in facing the transformation of pesantren in the digital era. In this context, the research will focus on identifying the main challenges faced by pesantren in the process of technological adaptation, including structural, cultural, and operational barriers that may affect the sustainability of their role as Islamic educational institutions. The research also aims to analyze the opportunities offered by the digital era for pesantren, such as the use of technology to expand access to learning, optimize institutional management, and strengthen Islamic propagation through digital media(Sitorus & Khatibah, 2024);(Rustandi & Kusnawan, 2023).

By understanding this opportunity, pesantren can utilize technology to support their mission without losing their traditional identity (Tan, 2014). This research also explores the social, cultural, and educational impacts of digital transformation on pesantren, both positive and negative (Hanafi et al., 2021). This includes the influence of technology on santri learning patterns, the relationship between teachers and students, and the preservation of typical pesantren values which are the main foundation of Islamic education.

The provisional argument in this study reveals that the transformation of pesantren in the digital era will only be a solution for Islamic education if it is managed with a mature strategy and based on solid Islamic values. Conversely, without the right approach, this transformation risks becoming a threat that damages the uniqueness and essence of pesantren education. This argument becomes the basis for further analyzing how pesantren can optimally utilize technology while protecting their fundamental values.

B. RESEARCH METHOD

The selection of this object is the Mabadiul Ihsan Tegalsari Islamic Boarding School Foundation. Pesantren is one of the pesantren that has implemented Pesantren Transfromation in the Digital Era, based on several strong reasons. First, Pesantren Mabadiul Ihsan has become one of the pesantren that actively integrates digital technology in the education and management system of the institution. The implementation of online-based learning, the use of applications for santri management, and da'wah through social media make this pesantren relevant as a case study in understanding the dynamics of digital transformation in Islamic educational institutions(Mubarak et al., 2022).

Second, this pesantren still shows a strong commitment to the preservation of traditional Islamic values. This combination of modernization and tradition preservation makes it an interesting object to study, especially in the context of Islamic education in the digital era(Sahin, 2018). Third, this pesantren is known to have developed innovations in curriculum and learning methods, including the development of technology-based teaching materials(Winoto, 2022). This is in line with the research focus to explore how digital transformation can be a solution for Islamic education. For these reasons, Yayasan Pondok Pesantren Mabadiul Ihsan Tegalsari is seen as an appropriate research object to illustrate how digital transformation in pesantren can be a solution or a threat to Islamic education.

This research uses a qualitative method with a case study approach. This approach was chosen to provide an in-depth understanding of the phenomenon of pesantren transformation in the digital era (Rustandi & Kusnawan, 2023), especially at the Mabadiul Ihsan Tegalsari Islamic Boarding School Foundation. The case study approach allows researchers to explore in detail the dynamics, challenges, opportunities, and solutions related to the application of digital technology in pesantren(Conboy et al., 2020). Data were collected through interviews with caregivers and students, participatory observation, document study, and data collection (Teixeira et al., 2020);(Cherewick et al., 2021). This research is expected to produce deep insights and solutions to support the transformation of pesantren in the digital era as a strategic step in strengthening Islamic education.

The selection of these informants is based on their roles and experiences that are relevant to the research focus, namely the transformation of pesantren

in the digital era. The pesantren caregiver is a key figure who leads the policy direction, strategy, and implementation of digital transformation in pesantren(Prayogi et al., 2022);(Hanafi et al., 2021). Information from the caregivers is very important to understand: The vision and mission of pesantren in adopting digital technology, Policies implemented regarding digital transformation, Perceptions of the impact of technology on traditional Islamic values, Challenges faced in integrating technology into the pesantren education system. Santri as the direct subject of the educational process in pesantren have a unique perspective on the application of digital technology in learning(Suharto & Fatmawati, 2022);(Kardi et al., 2023).

Information from santri was used to explore: Their experiences in using digital technology in pesantren, Changes in learning and interaction patterns due to technology adoption, Their views on the advantages and disadvantages of digital transformation in pesantren, The impact of digital transformation on their understanding of religion and their daily lives. Informants were selected purposively, based on their role and involvement in digital transformation in pesantren(Efendi & Qolfathiriyus, 2021). By involving caregivers and students as informants, this research is expected to be able to provide a comprehensive picture of how digital transformation is implemented and perceived at Pesantren Mabadiul Ihsan, both from the perspective of managers and students. The following is a table of research informants at the Mabadiul Ihsan Foundation.

Table 1. Source of Informants

No	Category of Infromant	Total	Criteria	Data Collection Technique
1	Caregiver	1	Has a role as a leader or policy maker in the pesantren.	Interview
2	Santri	3	- Aged 15-21 years old. - Actively participating in learning-based digital di pesantren. - Purposively selected from different levels of education to get diverse perspectives.	Participatory interview and observation

This table is expected to help manage the data collection process so that it is structured and generates deep insights.

Data collection techniques using observation, interviews and documentation to provide an in-depth understanding of the solutions and threats for Islamic education in the context of pesantren transformation in the digital era, this research uses three main techniques in data collection, namely observation,

interviews, and documentation(Khair & Misnawati, 2022). The three techniques were chosen to support a holistic and in-depth analysis of the phenomenon under study. Observation was carried out in a participatory manner to directly observe the implementation of digital transformation at Pesantren Mabadiul Ihsan Tegalsari(Barrane et al., 2021). Seeing how technology is applied in the educational process, such as the use of digital devices for learning, application-based pesantren administration management, and da'wah activities through digital media. Observing changes in interaction patterns between santri and teachers, possible access to inappropriate digital content, and the impact of technology on pesantren culture.

In-depth interviews were conducted with pesantren caregivers and santri, Understanding policies and strategies in adopting digital technology, Identifying challenges faced and how pesantren overcome them(Hanafi et al., 2021). Documentation is used to complement data obtained through observation and interviews Written policies or official pesantren documents related to the implementation of digital technology, Learning modules, technology-based teaching materials, and pesantren activity reports, Digital archives such as social media posts, online learning platforms, or applications used by pesantren(Wardana & Usman, 2023). This approach is expected to provide valid, comprehensive and relevant data to produce strategic recommendations for the management of Islamic education in the digital era.

This research uses the interactive model data analysis technique developed by Miles and Huberman. This analysis process involves three main stages, namely data reduction, data presentation, and conclusion drawing or verification(Asipi et al., 2022). This technique was chosen for its ability to systematically process qualitative data(Gioia, 2021), The data collected through observation, interviews, and documentation were selected, simplified, and focused on information relevant to the research objectives. Data reduction, where data that has been collected through observation, interviews, and documentation is selected, simplified, and focused on information that is relevant to the research objectives(Karunarathna et al., 2024).

Researchers grouped data based on main themes, such as technological solutions applied, challenges faced, and the impact of digital transformation on Islamic education. Data presentation, where the results of data reduction are organized in the form of descriptive narratives, tables, charts. This presentation provides a clearer and more structured picture of the research findings. For example, data on how pesantren integrate digital technology in learning is organized systematically, including its impact on religious understanding and social interaction in the pesantren environment.

Conclusion drawing and verification, where researchers begin to formulate conclusions based on patterns, themes, and relationships found in the data. The conclusions drawn are then verified to ensure their accuracy. With this interactive model approach, the research is expected to provide an in-depth picture of the

digital transformation of pesantren, identify potential solutions, and understand the threats that may be faced by Islamic education in the digital era.

C. RESULTS AND DISCUSSION
1. Collaborative Solution to Build a Balanced Digital Pesantren

A collaborative approach to building a balanced digital pesantren, where technology integration is implemented without compromising Islamic values(Zaini & Hamidah, 2023). Synergy between pesantren caregivers, students, and the community is needed to create a learning environment that supports digital transformation (Diana & Zaini, 2023);(Alhifni et al., n.d.). The reason behind this collaborative solution is so that each party can contribute to designing a curriculum that combines aspects of technology and character education(Aimah & Nasih, 2024). By involving the community, pesantren can ensure that the use of technology remains in accordance with Islamic principles, facilitate relevant learning, and reduce potential risks arising from the negative influence of technology(Hunim & Aimah, 2024). Thus, pesantren will not only become a center of religious education that is adaptive to the times, but also maintain their identity and inherited values.

As interviews with caregivers and santri show, he emphasized the importance of collaboration in facing digital transformation. He explained,

"We cannot rely solely on technology without involving all elements in the pesantren. Caregivers, students, and the community must unite to ensure that the education provided is still adhering to Islamic values."

Based on the interviews, it can be concluded that collaboration is a key element in dealing with digital transformation in pesantren. A collaborative approach between caregivers, students, and the community can ensure that technology integration not only improves the quality of education, but also maintains the Islamic values that have become the foundation of pesantren education.

Table. 2 collaborative solutions to build a balanced digital pesantren

No	Points	Description
1	Collaborative approach	Prioritizing synergy between pesantren caregivers, students, and the community for technology integration.
2	Shared curriculum design	Form a team consisting of kyai, teachers and santri to design a curriculum that combines technology and character education.
3	Safeguarding Islamic values	Ensure that the use of technology remains in accordance with established Islamic principles.
4	Community engagement	Inviting the community to participate in the education process so that they have a

		common understanding of the values that are safeguarded.
5	Balance between technology and tradition	Creating learning that is relevant to the times without sacrificing the identity of the pesantren.

The table above explains that the collaborative approach helps pesantren integrate technology without neglecting Islamic values. Through shared curriculum and community support, pesantren can prepare santri for the digital world while maintaining their Islamic identity.
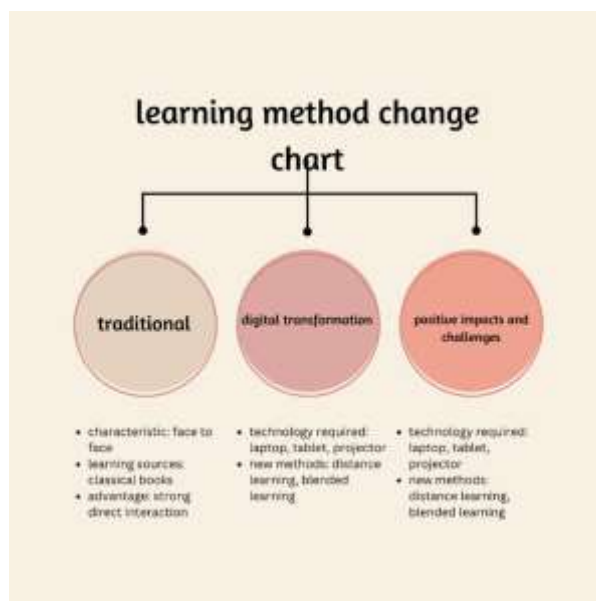
2. Changes in learning methods in pesantren

Changes in learning methods in pesantren with the integration of digital technology. Technology allows pesantren to adopt new methods, such as distance learning, blended learning, and the use of digital devices in the classroom(A. Rohman et al., 2021). This is because it provides wider access to education and increases the effectiveness of santri learning. In the digital era, geographical limitations are no longer a barrier, so students can take part in learning from anywhere(Ferri et al., 2020). In addition, digital methods help access more diverse learning materials, enriching students' insights(Caffrey et al., 2022). However, this change also poses challenges, such as the reduction of direct interaction and the need for character education to ensure that pesantren values are maintained.

As an interview with the caregiver and a teaching student at one of the modern pesantren, he explained the changes that occurred in the learning method.

"In the past, we only relied on direct teaching methods in the classroom. However, now we use learning applications and online platforms to deliver material to the students, but the direct interaction between students and ustaz is slightly reduced, and we must ensure that character education is maintained in this digital era. That's why we continue to supervise and direct students in using technology"

Based on the conclusion of the interview, the change in learning methods in pesantren through the integration of technology has facilitated access to education for students, allowing distance learning and the use of more diverse digital materials. Although facilitating the learning process, this change also presents challenges, such as the reduction of direct interaction and the need to maintain character education. For this reason, a balance between the use of technology and the preservation of pesantren values is important so that the educational goals of pesantren are still achieved in the digital era.

Figure 1. Chart of changes in learning methods

Based on the figure above, the transformation of learning methods in pesantren towards digitalization brings many benefits, such as wider access to learning materials, flexibility, and time efficiency. Through methods such as distance learning and blended learning, pesantren can provide a richer learning experience for students. However, this digitalization also poses challenges, especially in maintaining direct interaction between ustaz and santri and maintaining character education that is the hallmark of pesantren.

3. The role of kyai in digital pesantren leadership

As the main respected figure, the kyai acts not only as a teacher of religion, but also as a leader who guides the changes and adaptation of pesantren to technological developments (Mukarromah et al., 2024). Kyai is the central figure who ensures that the traditional values of pesantren are maintained, even when technology is adopted in the learning process (Roqib, 2021). The role of the kyai as digital can affect the character and views of the santri(Aini, 2020). Kyai is in charge of setting regulations, determining appropriate limits, and ensuring that the use of technology does not interfere with character education (F. Rohman, 2022). In addition, the kyai is also responsible for directing teachers and students so that technology is utilized for productive purposes and in accordance with Islamic principles(SN & Suwadi, 2024). With the leadership of kyai, pesantren can maintain a balance between modernization and preservation of the core values of pesantren.

In interviews with caregivers and santri, a pesantren leader who actively integrates technology in the educational process, he explained his important role as a leader.

"As a kyai, I have to ensure that technology is used appropriately and does not interfere with the values we hold, We set limits for the use of digital devices, ensuring santri do not abuse them. We want technology to be a tool, not a substitute for the main character education,"

Based on the conclusion from the interview, the role of the kyai in the leadership of digital pesantren is crucial to ensure that technology adoption is in line with the Islamic values upheld by the pesantren. As a leader, the kyai is responsible for setting the rules of technology use, guiding ustaz, and ensuring that character education remains a priority. Through proper direction, the kyai keeps technology a tool that enriches the learning process without compromising the principles and identity of the pesantren.

Table. 3 The role of kyai in digital pesantren leadership

No	Points	Description
1	Keeper of Traditional Values	Kyai ensures that the use of technology does not interfere with Islamic principles and values in pesantren
2	Regulating the Use of Technology	Kyai sets limits on the use of digital devices to maintain discipline and educational goals
3	Mentor Ustad and Santri	Kyai directs ustaz and santri to use technology as a productive and meaningful tool.
4	Trainer and Director	Kyai provides training to ustaz to utilize technology without ignoring adab and Islamic values.
5	Balancing Modernization and Tradition	Kyai maintains a balance between the adoption of technology and the preservation of the pesantren's distinctive character.

Based on the table above, it can be concluded that Kyai plays a key role in the leadership of digital pesantren, ensuring that technological transformation in pesantren remains in line with Islamic values. By setting regulations on the use of technology, guiding ustaz and santri, and maintaining a balance between modernization and tradition, kyai can utilize technology as a meaningful educational tool without sacrificing the essence of pesantren character. This role allows pesantren to adapt to the digital era while maintaining their identity and main purpose in educating santri.

D. CONCLUSION

The transformation of pesantren in the digital era demands a balanced collaborative approach to ensure that the integration of technology does not sacrifice the Islamic values that have become the foundation of pesantren

education. Synergy between pesantren caregivers, students, and the community is key to creating a learning environment that supports digital transformation, while maintaining the identity and values of pesantren. The use of digital technology allows pesantren to adopt modern learning methods, such as distance learning and blended learning, which can improve the accessibility and effectiveness of education. However, this change presents challenges in the form of reduced direct interaction and the need to strengthen character education to keep Islamic values as the main guideline. As the central figure, the kyai has a strategic role in ensuring that the traditional values of pesantren are maintained amidst digitalization. Kyai is not only a spiritual leader but also a director in setting regulations, determining appropriate limits, and guiding teachers and students in utilizing technology productively and Islamically. With the leadership of the kyai and the collaboration of all parties, pesantren can become an Islamic education center that is adaptive to the times without losing its identity. This approach ensures that technology is used as a tool to enrich learning, maintain the character of the santri, and present a solution to the problem.

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