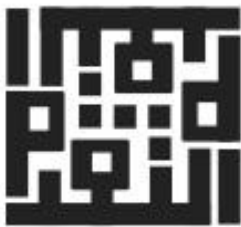


A Solution Approach to the Challenge of Digitalization in Islamic Boarding Schools: Combining Tradition with Technology

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Introduction

Digitalization in pesantren is not only about the adoption of new technology but also about how to integrate the technology with the existing pesantren tradition to produce harmonious and sustainable solutions (Suroso et al., 2021); (Mursidi et al., 2021). Technology can be used to spread Islamic values and teachings more

ABSTRACT

This research investigates technology integration in Islamic boarding school education at the Darussalam Islamic Boarding School Blokagung, Banyuwangi. The aim is to understand the implementation of social media for da'wah and education, technology-based assessment systems, and library digitalization in the context of Islamic boarding schools. The research method used is a qualitative approach with a case study at the Darussalam Islamic Boarding School, Blokagung, involving teaching staff, Islamic boarding school managers and students as the main informants. Data collection techniques will be collected through interviews and participatory observation in daily activities at the Darussalam Islamic Boarding School Blokagung. The research results show that integrating technology with traditional values can improve the quality of education and expand the positive impact of Islamic education in Islamic boarding schools.

widely through social media, websites, and online learning applications. Research shows that pesantren integrating technology have increased student participation in teaching and learning activities (Salsabila et al., 2022).

This shows that technology can attract students without sacrificing traditional values. Thus, integrating technology in Islamic boarding schools is not just about

adopting new tools but about creating harmony between technology and tradition to produce sustainable solutions that can increase student participation and spread Islamic teachings more widely without sacrificing traditional values.

Research on the challenges of digitization of Islamic boarding schools that integrate traditions has been carried out a lot. Islamic boarding schools need to adapt to technological developments to remain relevant in the digital era (Mukarromah et al., 2024); (Muhith et al., 2023); (Nikmatullah et al., 2023). This research is important to understand how pesantren can integrate technology without sacrificing tradition. The Ministry of Religious Affairs routinely releases reports on the development of digitalization in Islamic boarding schools (Kurniawati, 2017). This report covers the challenges and successes experienced by pesantren in integrating technology with their traditions. Thus, research on the challenges of digitalization of Islamic boarding schools that integrate traditions is important to help them adapt to technology without sacrificing traditional values, with the support of regular reports from the Ministry of Religious Affairs that record their developments, challenges, and successes.

This research aims to provide an overview of the strategy of integrating technology and tradition in Islamic boarding schools. Islamic boarding schools need to remain relevant and attractive to the younger generation familiar with technology (Rizaldi et al., 2022); (Saifullah Aldeia et al., 2023). The integration strategy described in this study can help pesantren achieve this. The Ministry of Religious Affairs routinely

releases reports that show developments and challenges in the digitization of Islamic boarding schools. This report provides evidence of an urgent need for an effective strategy for integrating technology and tradition (Santiana et al., 2022). Thus this study aims to provide an overview of the strategy of integrating technology and tradition in Islamic boarding schools to remain relevant for the younger generation, which is strengthened by the report of the Ministry of Religion, which shows the urgent need for an effective strategy in the digitization of Islamic boarding schools.

In this context, this study will propose that technology integration in pesantren education can succeed if a holistic and integrated approach exists. Through case studies in several Islamic boarding schools, this research will identify the factors that support or hinder the adoption of technology and its impact on the quality of education and the maintenance of religious values. Thus, this research is expected to provide practical recommendations to increase the use of technology in the context of pesantren education, which can be widely applied to strengthen the role of pesantren in facing the challenges of digitalization.

Literature Review

Digitization

Digitalization in Islamic boarding schools is not only about adopting new technology but about integrating the technology with existing traditions to produce harmonious and sustainable solutions (Bambang Triyono & Elis Mediawati, 2023). The younger generation tends to be more interested in environments that use technology. Therefore, Islamic boarding

schools must adapt to remain relevant and attractive to new students. Research from the State Islamic University (UIN) shows that the use of technology in pesantren can increase the participation and effectiveness of student learning without sacrificing traditional values. This proves that technology can be an effective tool if integrated correctly. Thus, to remain relevant and attractive to the younger generation, pesantren must adopt technology proven to increase student participation and learning effectiveness without sacrificing traditional values.

However, technology adaptation in pesantren requires introducing digital tools and involves changes in teaching and training methods for educators and students. It is important to design a curriculum that combines technology with traditional methods in a balanced manner and provide adequate training so that all parties can make optimal use of technology. Support from the entire pesantren community, including leaders and parents, is also crucial to ensure a smooth and effective transition. With a planned approach and strong support, digitalization can strengthen the tradition of Islamic boarding schools while meeting the needs of modern education, thereby creating a dynamic and relevant learning environment for the younger generation.

Boarding (Pesantren)

Pesantren not only functions as a religious, educational institution but also plays a role as a place for character and personality formation. but its holistic approach makes it a comprehensive center for self-development. Pesantren is designed to provide a well-rounded education, not only in religious aspects but also in character

and personality development (Southern & Islamic, n.d.). This is due to the learning method that involves moral and ethical values as an integral part of the curriculum.

In Islamic boarding schools, daily activities such as recitation, tadarus, and other worship practices are part of a routine that teaches values such as discipline, simplicity, and responsibility. In addition, non-academic activities such as leadership in pesantren organizations or involvement in social activities also strengthen the character and personality of students. Pesantren provides a comprehensive education by integrating aspects of religion, character development, and personality through learning methods that involve moral values, ethics, and daily and non-academic activities that support the growth of students.

With this comprehensive approach, pesantren not only equips students with in-depth religious knowledge but also life skills that are essential to face the challenges of the modern world. Programs involving leadership training, social skills development, and active participation in community activities enrich the student experience and prepare them to become independent and responsible individuals. Thus, pesantren plays a key role in shaping a generation that is not only well-rounded but also has a strong character and high integrity, making it a vital institution in society.

Tradition

Preserving traditions in Islamic boarding schools shows that maintaining old practices is important, but adapting these traditions to the times is also necessary to remain relevant for the younger generation

(Abas & Auliya, 2023). The integration of tradition with modern teaching methods can improve the quality of education in Islamic boarding schools. This gives students a comprehensive education that includes traditional values and modern knowledge. These Islamic boarding schools have successfully blended classical teaching traditions with modern technology, such as e-learning and online learning applications, without sacrificing traditional values. This shows that adaptation to the times can be done without losing identity. Thus, the integration of tradition with modern teaching methods in pesantren can improve the quality of education, allowing students to get a comprehensive education that includes traditional values and modern knowledge without losing their identity.

In addition, to ensure that the integration of tradition and technology runs smoothly, it is important for pesantren to implement an inclusive and participatory approach in the planning and implementation process. Islamic boarding school leaders, educators, and students must be involved in this process so that all parties can adapt to change effectively. Technology should be seen as a tool to enrich and deepen understanding of tradition, not as a substitute. Through adequate training and continuous monitoring, boarding schools can ensure that technology is used optimally to support their educational goals while still maintaining a wealth of traditional values and practices. This approach improves the quality of education and ensures that pesantren remain relevant and dynamic learning centers for future generations.

Research Method

The object of this research is the Darussalam Blokagung Islamic Boarding School, Banyuwangi, which has adopted technology in various aspects of its education. This Islamic boarding school was chosen as a case study to gain an in-depth understanding of the implementation of technology in the context of Islamic boarding schools in the area. The theory of purposive sampling (Budiman & Rosmiati, 2020), is used to select these pesantren because of their representativeness and relevance of experience in integrating technology.

This study uses a qualitative approach with a case study method. This approach allows researchers to gain an in-depth understanding of the unique context of Pondok Pesantren Darussalam Blokagung, including how they implement technology in education and da'wah. Case studies are also the theory that emphasizes using case studies in qualitative research to explore complexity and specific contexts (Efrem Jelahun, 2022).

The main informants in this study are teaching staff, pesantren managers, and students who are directly involved in the use of technology at the Darussalam Blokagung Islamic Boarding School. The purposive sampling technique will select informants with relevant experience and knowledge related to technology implementation. The theory of data triangulation (Susanto et al., 2023) will be applied to ensure the validity of data by combining information from various sources. The following is a table of informants for research on the implementation of technology at the Darussalam Blokagung Islamic Boarding

School, Banyuwangi, using purposive sampling techniques and triangulation data to ensure the validity of the data:

This study involved a total of 18 informants consisting of teaching staff, pesantren managers, and active students who were selected based on the criteria of relevance and experience in the use of technology in the context of the Darussalam Blokagung Islamic Boarding School.

No	Informant	Selection Criteria	Quantity
1	Staf Pengajar	Teaching experience at Islamic boarding schools	5 Person
2	Pesantren Manager	Plays a role in technology decisions	3 Person
3	Active Students (Santri)	Engage in the day-to-day use of technology	10 Person

Data collection techniques will be collected through in-depth interviews with teaching staff and pesantren managers and group discussions with students actively using technology in their education. Participatory observation will also be carried out to directly observe technology implementation in daily activities at the Darussalam Blokagung Islamic Boarding School. This approach is in line with the theory of Cohen et al. (2011), which emphasizes the importance of collecting in-depth and diverse data in qualitative research (Rifa'i, 2023).

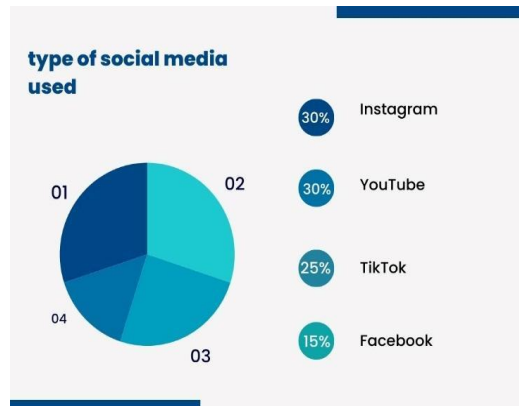
The qualitative data collected will be analyzed using a thematic analysis approach. This approach allows researchers to identify thematic patterns or motifs that emerge from the data and interpret them in relevant theoretical contexts (Sitasari, 2022), (Rozali, 2022). The thematic analysis will allow the disclosure of various aspects of how Pondok Pesantren Darussalam Blokagung integrates technology into their education and its impact on the learning process and traditional values of the pesantren.

Result and Discussion

The Utilization of Social Media for Da'wah and Education in Islamic Boarding Schools

The Darussalam Blokagung Islamic Boarding School uses social media as the main tool for da'wah and education. The educational content developed specifically for this platform supports Islamic learning and improves students' understanding of Islamic teachings. The active involvement of the pesantren community in online activities was also high, showing wide participation in spreading Islamic values through social media. Social media provides a broad and accessible platform for pesantren to reach a global audience. Using social media, pesantren can effectively promote Islamic values and expand the positive impact of Islamic education. Da'wah activities at the Darussalam Blokagung Islamic boarding school through platforms such as YouTube, Facebook, Tik Tok and Instagram. The utilization of social media is illustrated with a pie chart.

Figure 1. The use of social media for da'wah and pesantren education



Source: processed by researchers

Based on the pie chart above shows the use of the platform as a da'wah medium at the Darussalam Blokagung Islamic boarding school through Instagram, YouTube, TikTok, and Facebook. The percentage of platform utilization in the form of Instagram and YouTube is the most widely used for da'wah and education, with a percentage of 30% each. This is because Instagram and YouTube are the media that are most in demand by alumni as a whole. Meanwhile, TikTok and Facebook are also used for da'wah and education, with percentages of 25% and 15%, respectively. The content presented is in the form of information on Islamic boarding school activities, maqolah kyai, education, and others. Educational content designed specifically for social media also helps improve student learning quality and facilitates a deeper understanding of Islamic teachings.

The approach of pesantren in utilizing social media for da'wah and education not only strengthens Islamic values in the eyes of the public but also supports the learning

process of students globally. With the involvement of pesantren in the wider community through social media, this integration expands the reach of da'wah and increases the positive impact of Islamic education. That way, social media has an important role in disseminating information in Islamic boarding schools. This is in agreement with Badi'ah et al. (2021). Based on the theory of mass communication (Siti Rohmah, 2021), social media has an important role in disseminating information and influencing public perception.

Technology-Based Assessment in Islamic Boarding Schools: Improving Accuracy and Efficiency

The pesantren implements a technology-based assessment system to improve accuracy and efficiency in managing student learning outcomes. The use of specialized software allows teachers to more easily manage and analyze assessment data, while adequate training is provided to ensure this system's effective use. Technology-based assessments provide significant advantages in managing and analyzing learning outcome data more accurately and efficiently. Technology-based assessment at the Darussalam Blokagung Islamic boarding school uses an application with features that include assessments of students' daily lives, student achievements, morals and so on. The image of the Si Santri application as a technology-based assessment is as follows.

Figure 2. Si Santri Application



Sumber: documentation results

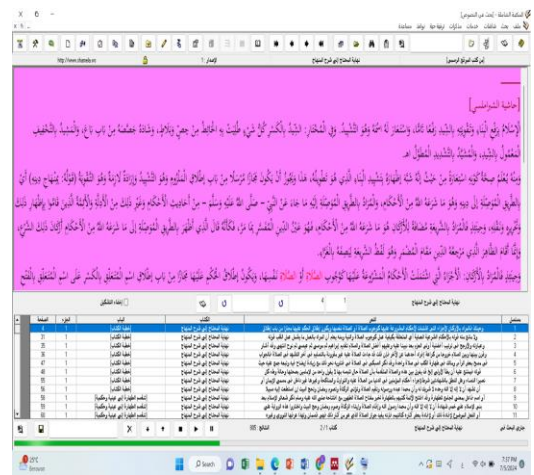
With the adoption of this technology, pesantren can improve better decision-making in an effort to support the student learning process. This expression was corroborated by Rizaldi et al. (2022). Educational evaluation theory (Inanna et al., 2021) (Rosyidah & Wantini, 2021) emphasizes the importance of accurate and efficient assessment to support an effective learning process. Using technology in assessment, pesantren can optimize data collection and analysis of student learning outcomes, ultimately improving the overall quality of education in pesantren.

Digitization of Islamic Boarding School Libraries

Islamic boarding schools have successfully digitized libraries to provide easy access to thousands of classic books through digital platforms such as "Maktabah Syamilah."

Student participation in library activities has increased significantly since the existence of this digital access. Library digitization allows students to access various Islamic classical literature more easily and efficiently. This is because students usually have to bring various kinds of books to study, now it is available on a digital platform in the form of mastaba syamilah which contains various kinds of books which are certainly easier to carry and more efficient. The image of the Maktabah Shamilah application is as follows.

Figure 3. Maktabah Shamilah



Source: documentation results

This application not only increases students' interest in reading but also expands the reach of literacy in the pesantren environment. This expression is corroborated by Isti'anah and Wahyuningsih (2021). Based on the theory of innovation diffusion (Verona et al., 2023), adopting new technologies in the context of traditional culture can be successful if the technology is integrated

with existing values. The digitization of pesantren libraries is an example of how technology can be used to expand access to knowledge and preserve the core values of pesantren in the digital era.

Conclusion

Based on the discussion of some of the findings above, it can be concluded that the Darussalam Blokagung Islamic boarding school has adopted a solution approach that combines tradition with technology in facing the challenges of digitalization. Social media such as Instagram, YouTube, TikTok, and Facebook have successfully become the main tools for da'wah and education, increasing student engagement and expanding the positive impact of Islamic education. In addition, implementing a technology-based assessment system has increased accuracy and efficiency in managing student learning outcomes, and the digitization of libraries through platforms such as Maktabah Syamilah has expanded access to Islamic classical literature. This approach not only strengthens Islamic values in the eyes of the public but also supports the global learning process and improves the quality of education in Islamic boarding schools. Thus, the Darussalam Blokagung Islamic boarding school shows that the integration of technology with traditional values can provide effective solutions in dealing with the changing times in the digital era.

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