Utilization of Digital Technology in Islamic Boarding Schools: A Case Study in Samarinda

Ida Suryani Wijaya  
UIN Sultan Aji Muhammad Idris Samarinda  
idasuryaniwijaya@uinsi.ac.id

Miftahur Ridho  
UIN Sultan Aji Muhammad Idris Samarinda  
ridho@uinsi.ac.id

Di Ajeng Laily Hidayati  
UIN Sultan Aji Muhammad Idris Samarinda  
diajenglaily11@gmail.com

Mahkamah Mahdi  
Universitas Al-Azhar, Cairo-Egypt  
m.mahdimuhammad@gmail.com

Abstract

Pondok Pesantren (traditional Islamic boarding school) is one of Indonesia’s most crucial pillars supporting educational needs. As the foremost institution upholding Islamic traditions in the archipelago, pesantren is expected to remain relevant amidst the advancements of the era without forsaking its deeply rooted values and traditions. Thus, this article aims to highlight the issue of technology utilization by pondok pesantren by describing the general landscape of digital media usage in several pesantren located in the Samarinda Seberang region, as well as analyzing the perceptions of pesantren administrators regarding the utilization of digital media as a means of information dissemination and as a tool to improve the overall management of pondok pesantren institution. To undertake this research, a phenomenological approach is employed to analyze data collected through observations, interviews, questionnaires, and documentation in six pondok pesantren in the Samarinda Seberang area. The findings reveal that the pondok pesantren in Samarinda Seberang are already familiar with the application of digital technology. However, this utilization remains limited to media based on images and videos. The incorporation of text-based technology is still restricted due to the lack of resources available to the pesantren.

Keywords: Digital media, information technology, pondok pesantren.
Abstrak


Kata kunci: Media digital, pondok pesantren, dan teknologi informasi.
A. Introduction

The Pondok Pesantren institution serves as a foundational element within the social fabric of Indonesian society (Fiqih, 2022). This institution has significantly contributed to enhancing the quality of life among communities through multifaceted dimensions, encompassing but not limited to educational, social, economic, and religious domains (Fathoni & Rohim, 2019; Muhaemin, 2019). As a traditional Islamic educational institution in Indonesia, Pesantren plays a pivotal role in preserving and advancing the community’s religious, cultural, and social values. The indispensability of Pondok Pesantren to the advancement of the Indonesian nation is unequivocal. Nevertheless, evolving temporal dynamics present formidable challenges to the institution’s ability to continue its optimal contributions to national progress (Ulm & Mun’im, 2019).

The role of Pondok Pesantren in the context of educational development in Indonesia is profoundly significant. One pivotal aspect pertains to the inter-dynamic relationship between the educational values intrinsic to traditional Islamic Pesantren and the governmental agenda for educational modernization within the policy domain. On the one hand, the government endeavors to modernize, thereby facilitating optimal human development within Indonesia (Ihsan et al., 2021). Conversely, Pondok Pesantren, inherently tasked with upholding Islamic moral standards, is compelled to filter values that align with modern education actively, often imbued with liberal undertones. Consequently, scholars largely concur that since Indonesia declared independence in 1945, concerning government policies on Islamic education administered by Pesantren, there has been a paradigmatic shift from domestication toward accommodation (Kosim et al., 2023).

Pesantren serves as an educational institution dedicated to imparting Islamic teachings and instilling religious values, known as santri, in the daily lives of its students (Zafi et al., 2021). Over the years, many Pesantren have adhered to conservative instructional methodologies, including using classical texts and direct face-to-face interactions between teachers and santri (Sukawi & Haryanto, 2014). Despite the evolving temporal landscape and technological advancements impacting the educational milieu, Pesantrens have managed to preserve their traditional values, serving as a robust foundation for shaping the character and spirituality of the santri (Khuailid, 2019). Over time, educational paradigms anchored in spiritual values intrinsic to Pesantren have been increasingly adopted by other educational institutions, including tertiary educational establishments (Chanifah et al., 2021). Nonetheless, concerns persist regarding the compatibility of Pesantren’s strategies with democratic values (Jackson, 2007).

Over successive generations, this esteemed system has successfully forged a robust religious identity characterized by discipline and a steadfast commitment to Islamic values among the santri. Pesantren has contributed to enduring resilience and relevance, even in the face of contemporary challenges (Adib, 2013). However, with the rapid advancement of technology, Pesantren is confronted with an imperative need to embrace digitalization within its educational practices (Lundeto, 2021). Furthermore, Islamic institutions’ pervasive utilization of information technology has become instrumental in projecting specific Islamic viewpoints aligned with the respective institutional Islamic visions. This phenomenon has
engendered a competitive landscape concerning the interpretation of Islam within the public sphere (Jubba et al., 2022; Maemonah et al., 2023).

A significant challenge facing Pondok Pesantren in the contemporary era is adapting to and leveraging the advancements in communication and information technology. This arises from the rapid evolution of the digital realm in recent decades. Without concurrent enhancements in skills to harness the opportunities afforded by such rapid developments, Pondok Pesantren, as a social and religious institution, runs the risk of lagging behind and losing its relevance (Adib, 2013). Moreover, the influx of information brought about by information technology also poses the potential to erode the values of respect for diversity that have long been nurtured within the Pondok Pesantren community (Latif & Hafid, 2021).

In tandem with the evolving temporal landscape and advancements in information technology, Pesantren confronts challenges in adopting innovations in curriculum design, instructional methodologies, learning systems, and management practices (Lundeto, 2021). Furthermore, Pesantren faces pressures to navigate contemporary challenges effectively and enhance the efficacy of its educational endeavors. The widespread integration of digital tools within the educational framework allows Pesantren to embrace or resist extant technological developments (Zafi et al., 2021).

Digitalization entails adopting and integrating digital technology across various facets of life, including the realm of education. This phenomenon has permeated nearly all sectors, encompassing formal and non-formal educational settings. To date, numerous mosques and Islamic propagation institutions have leveraged digital media platforms as instruments for outreach and propagation (Hidayati & Anganthi, 2022). Within the context of Pesantren, digitalization presents significant opportunities for enhancing institutional quality and serves as a conduit for disseminating pertinent information related to Pondok Pesantren (Haris, 2023). Furthermore, digitalization holds the potential to amplify the capabilities of kyai (Islamic scholars) to influence broader society, particularly in the context of mainstreaming moderate Islamic values (Faisal et al., 2022).

Setiawan delineates three distinct characteristics of Pondok Pesantren concerning their internet utilization. Firstly, Pondok Pesantren institutions fully harness the internet to support administrative functions and pedagogical activities. Secondly, some Pondok Pesantren establishments employ internet resources exclusively for administrative purposes, accompanied by stringent regulations governing student access to the internet. Thirdly, there exist Pondok Pesantren that abstain entirely from utilizing the internet, encompassing both operational aspects and instructional activities (Setiawan, 2012). Nonetheless, an increasing number of Pondok Pesantren are earnestly considering the adoption of internet technology, weighing its substantial positive impacts against potential risks (Silfiana, 2020).

The widespread outbreak of the Covid-19 pandemic several years ago significantly contributed to the increased utilization of digital media across various educational institutions. This global health crisis spurred the acceleration of digital transformation in the realm of education in Indonesia (Astini, 2020).
In this context, many Pesantren actively engaged in enhancing various innovations and creative initiatives to be accessible on a mass scale through digital media (Muiz, 2023). The pandemic expedited digital changes within Pesantren, notwithstanding the acknowledged challenges and difficulties in implementation. In response, Pesantren must address the challenges of scheduling alterations to preserve and enhance existing human resources, ensuring continued contributions to the zeitgeist’s development (Supriyono, 2022).

Based on the background mentioned above, the objective of this article is twofold: firstly, to provide a comprehensive overview of the utilization of digital media within Pondok Pesantren, and secondly, to analyze the perceptions of Pondok Pesantren administrators regarding the use of digital media as a tool for information dissemination and institutional management.

B. Methods

This study employs a field research methodology with a phenomenological approach. The informants are administrators from six Pondok Pesantren in the Samarinda Seberang District. Data collection methods include observations, interviews, open-ended questionnaires, and documentary analysis.

The primary data for this research were collected through online observations facilitated by the Google search engine to ascertain the extent of digital media adoption by Pondok Pesantren. The researcher navigated through the social media platforms, websites, and applications that potentially have been utilized by these institutions. Additionally, a series of focused group discussions (FGDs) with Pondok Pesantren administrators in Samarinda Seberang were conducted to elucidate their perceptions regarding digital media. Within these FGD sessions, the research team disseminated brief questionnaires containing semi-structured questions concerning the utilization and significance of digital media in the management of Pondok Pesantren. Subsequently, secondary data were amassed through the documentation of previous studies pertinent to this research, thereby enriching the findings.

The findings were categorized according to themes and key codes that emerged during the data analysis process. Initially, the researcher transcribed all interview recordings to facilitate subsequent analysis. Subsequently, a series of codes were established to encapsulate the dominant themes concerning Pondok Pesantren and digital media. The data derived from the questionnaires were analyzed to ascertain the percentage of digital media utilization within Pondok Pesantren. Following this quantitative analysis, the researcher explained the essence underlying the phenomena under investigation.

C. Results and Discussion

The digitalization of various institutions, including educational establishments, is an inevitability in the contemporary era. Numerous educational institutions have embraced digital media as a tool to promote and disseminate various activities conducted within their purview.
Digital platforms such as social media not only afford convenience but also provide a cost-effective alternative that can be accessed ubiquitously, transcending temporal and spatial constraints (Habibi, 2018).

Based on the findings of this research, two overarching themes emerge concerning the utilization of digital media within Pondok Pesantren. Firstly, there is the utilization of digital media for the general management of Pondok Pesantren, encompassing aspects such as the administration of religious activities, educational endeavors, and financial operations of the institution. Secondly, digital media serves as a platform for promoting Pondok Pesantren, facilitating activities such as religious propagation, showcasing student activities, recruiting new students, and maintaining communication with the parents or guardians of the students.

Based on observations and interviews conducted, Pondok Pesantrens within the Samarinda Seberang region demonstrate a familiarity with social media platforms, particularly YouTube and Instagram. The majority of Pondok Pesantren institutions involved in this study affirmatively stated that they utilize these two social media platforms as instruments for promoting their respective establishments. These platforms are deemed appropriate due to the content they facilitate, encompassing both photographic and video materials, thereby enhancing the promotional capabilities of the Pondok Pesantren.

YouTube is widely regarded as one of the most potent social media platforms for outreach, particularly in the context of religious preaching (Hidayati & Fahlevi, 2020). It proves exceptionally effective for streaming regular activities such as end-of-year graduations and lectures delivered by kyai (Islamic scholars) from the Pondok Pesantren. On the other hand, Instagram is considered appealing due to its diverse features and the ability to present a visually simple yet engaging representation of Pondok Pesantren activities through photos and short videos. One Pondok Pesantren administrator explained the significance of these platforms as follows:

"We maintain Instagram and YouTube accounts primarily utilized for disseminating information about the activities of the students. These Instagram and YouTube accounts are managed by a single administrator, who also serves as the dormitory supervisor of the Pondok Pesantren. Typically, we feature significant events such as the end-of-year haflah and lectures by Islamic scholars on YouTube, while routine activities are showcased on Instagram. Furthermore, the posts on Instagram and YouTube are often shared within WhatsApp groups comprising the guardians of the students."

Despite utilizing YouTube and Instagram, the application of these platforms within Pondok Pesantren remains characterized by sporadic and random content posting. Generally, there is an absence of specific strategies employed to achieve the institution’s objectives. Furthermore, a structured content creation schedule has yet to be established, which would potentially enhance engagement and accessibility for users interested in the content.

On the other hand, the adoption of text-based websites is not yet prevalent among the majority of Pondok Pesantren. Text-based websites are less favored as they require Pondok Pesantren to exert more effort in terms of content production through written articles. Additionally, a considerable number of Pondok Pesantren
administrators lack insights into the procedures for creating and managing a website. Many of them are not familiar with websites as an informational medium.

In essence, digitalization can potentially empower Pesantren to remain relevant in an increasingly interconnected world (Damanhuri et al., 2013). As society becomes more driven by technology, Pesantren needs to equip their students with digital literacy and skills essential for success in the digital era (Afriyanti & Junaidi, 2022). By embracing digitalization, Pesantren can ensure that their students are prepared to navigate the complexities of the modern world while steadfastly upholding their Islamic identity.

Nevertheless, the administrators of the Pesantren involved in this research encounter several obstacles in leveraging digital technology effectively. Foremost among these challenges is the lack of capable resources. One administrator stated, "We are unaware of how to create a website or where to subscribe for such services. Additionally, maintaining a website requires expertise in Information Technology (IT), a skill set that is currently absent among our staff."

The administrators of the Pesantren articulate that they encounter difficulties accessing digital technology service providers due to a lack of understanding regarding how digital technology can assist them. They have yet to grasp strategies for garnering a substantial audience, enhancing follower engagement, and optimizing search engine visibility to ensure the prominence of their Pesantren's name.

An exemplary instance concerning the effective utilization of digital media is evident in the YouTube account of Pesantren Nurul Jadid. The management of this account commenced in 2017 under the auspices of the Nurul Jadid Multimedia Institution. Content disseminated through this platform is systematically curated and scheduled. The content encompasses educational materials, commemorations of significant religious observances, student creative endeavors, and Sholawat performances (Aisyah & Rofiah, 2022). Centralized and scheduled management undoubtedly fosters the advancement of the social media platforms owned by the Pesantren.

Following the Focus Group Discussion (FGD), the administrators of the Pondok Pesantren experienced a significant enhancement in their understanding concerning the importance of digital media within the context of Pondok Pesantren management. The FGD served as a productive platform for deliberating and delving into contemporary issues related to information technology advancements, specifically digital media, and its application within the Pesantren environment.

Through focused discussion sessions, FGD participants gained profound insights into various facets of digital media that could be adopted to enhance the efficiency and effectiveness of Pondok Pesantren management. The outcomes were distinctly evident when comparing pre-test and post-test data in the form of comparative diagrams. A significant enhancement transpired in the perceptions and understanding of Pondok Pesantren administrators regarding how digital media can address numerous challenges and expand Pesantren's reach, encompassing aspects such as education, financial management, communication, and marketing.
Armed with the insights garnered from the FGD, Pondok Pesantren administrators are now more receptive and prepared to adopt digital media as a tool that bolsters the comprehensive development of the Pesantren. This progression substantiates that the FGD successfully imparted novel perspectives and deeper understanding regarding the positive potential of digital media in enhancing the quality and relevance of Pesantren in this modern era. By judiciously harnessing information technology, it is anticipated that Pondok Pesantren will continue to evolve and remain pertinent in fulfilling its crucial role in shaping a morally upright and globally competitive younger generation.

The significance of digitalization within Pesantren lies in its potential to strike a balance between tradition and modernity. Embracing digital technology does not entail forsaking the legacy and values that have defined Pesantren for centuries. On the contrary, it enables Pesantren to evolve while remaining deeply rooted in cultural and religious heritage. The future existence of Pesantren is profoundly contingent upon how administrators comprehend the dynamics of technological advancement in relation to the utilization of technology for the administration of traditional Islamic education.

The administrators of Pesantren in Samarinda Seberang, although cognizant of the imperative to leverage digital technology for the advancement of their institutions, still require comprehensive preparedness concerning the actual utilization of digital technology. In this regard, the skills of the Pondok Pesantren administrators to effectively harness digital technology for the institution’s needs must be bridged by a clear vision regarding the future trajectory of the Pesantren they oversee.

Imaginatively, it is pretty facile for the administrators of Pondok Pesantren in Samarinda Seberang to envision how digital technology can aid them in developing the institutions they lead. Regardless of the varying levels of digital literacy among these administrators, the majority of them essentially belong to the millennial generation, inherently familiar with digital technology. They are
accustomed to experiencing how digital technology facilitates various aspects of their lives.

Exposure to information affords the administrators of Pondok Pesantren in Samarinda Seberang opportunities to continually expand their knowledge base concerning the potential applications of digital technology. In a more pragmatic context, this implies that the Pondok Pesantren in Samarinda Seberang are situated in a dynamic position where the prospects for evolving into a more digitally literate entity amplify over time. The administrators of these Pondok Pesantren have the opportunity to effectively transform the challenges posed by information exposure into opportunities for enhancement and improvement.

Nevertheless, the skill enhancement of Pondok Pesantren administrators in Samarinda Seberang concerning the utilization of digital technology remains primarily confined to image-based platforms. This indicates a limitation in the resources available to the Pesantren concerning writing proficiency. Ideally, such skills have traditionally been discussed within the Pesantren context as part of the discourse on religious propagation through writing, known as da’wah bil qalam. However, it is fundamentally acknowledged that cultivating this skill constitutes one of the more challenging endeavors.

Presently, the existence of evolving Large Language Modeling (LLM) technology aligned with the emergence of artificial intelligence (AI) has successfully overcome barriers associated with text production. LLM, powered by various AI providers, essentially has the capability to generate or produce original and unique text on a large scale and almost instantaneously. However, one drawback of this technology is its tendency to prioritize coherence in text over the accuracy of the information it produces.

The convergence between Pondok Pesantren and artificial intelligence (AI) technology is essentially unavoidable. The extensive promotion by AI providers facilitated by tech giants such as Microsoft (ChatGPT) and Google (Bard) is inevitable for all, including Pondok Pesantren administrators. The implications of this introduction are profoundly significant; administrators, who generally possess limitations in writing skills, receive substantial assistance. However, accompanying the convenience offered by AI technology for Pesantren administrators, there are also notable drawbacks that warrant consideration.

The challenges accompanying the utilization of AI technology for Pondok Pesantren can be categorized into two main domains: challenges related to the knowledge of Pondok Pesantren administrators and the limitations of Large Language Models (LLM) in verifying the accuracy of the information they generate. In this context, administrators are required to possess comprehensive and adequate knowledge to evaluate texts produced by LLMs to prevent potential misinformation of the broader populace. This is especially pertinent given the inherent nature of LLM technology, which prioritizes text coherence over information accuracy.

For administrators of Pondok Pesantren in Samarinda Seberang, the introduction to AI-based technology presents a unique ethical dilemma. On one hand, AI-based technology can assist them in generating text that supports the technical utilization of digital technology. On the other hand, administrators bear the responsibility of critically filtering the information produced by Large Language
Models (LLMs). While the long-term dynamic interplay between Pondok Pesantren administrators and LLMs tends to enhance insights and skills, which is inherently beneficial, in the short term, this situation has the potential to impose a greater burden than can be managed by these administrators.

**D. Conclusion**

The issue of utilizing information technology has long been a pivotal component of the discourse on modernizing Pondok Pesantren in Indonesia to maintain relevance amid contemporary advancements in information technology. Pondok Pesantren are compelled to adapt to compete effectively in an increasingly competitive landscape of the current era. Within the context of Pondok Pesantren in Samarinda Seberang, the utilization of digital media by administrators can be categorized into two primary domains: (1) Utilization for general management purposes, encompassing religious activities, educational endeavors, and financial management of the pesantren, and (2) Utilization for promotional activities, such as outreach efforts, showcasing student activities, attracting new students, and communicating with guardians of students. However, the application of digital technology within these two categories is not balanced; notably, Pondok Pesantrens in Samarinda Seberang predominantly restrict their digital engagement to the second category.
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