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Digital Transformation: Impact of Information Technology Management at Pondok Pesantren Ihyaul Ulum

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Abstract :

The digitalization of Islamic boarding schools (pesantren) has become a strategic step in addressing the development of information technology. Ihyaul Ulum Islamic Boarding School is one example of an Islamic boarding school that has adopted digital systems in various aspects, including administration, education, and preaching. This study aims to analyze the impact of digitalization in Islamic boarding schools, focusing on the application of information technology, the benefits for students and administrators, and the challenges faced in implementing digitalization. The results show that digitalization offers various benefits, such as increased administrative efficiency, easier access to information, financial transparency, and a modernized learning system. However, challenges such as limited infrastructure, data security, and the potential for misuse of technology remain major concerns. With a wise approach, digitalization can improve the quality of education in Islamic boarding schools without sacrificing the traditional values that are the foundation of these institutions.

Keywords: *Digitalization of Islamic Boarding Schools, Information Technology, Islamic Boarding Schools, Ihyaul Ulum.*

Abstrak :

Digitalisasi pesantren telah menjadi langkah strategis dalam menghadapi perkembangan teknologi informasi. Pondok Pesantren Ihyaul Ulum merupakan salah satu contoh pesantren yang telah mengadopsi sistem digital dalam berbagai aspek, termasuk administrasi, pendidikan dan dakwah. Penelitian ini bertujuan untuk menganalisis dampak digitalisasi di pesantren, dengan fokus pada penerapan teknologi informasi, manfaat bagi santri serta pengelola pesantren, serta tantangan yang dihadapi dalam implementasi digitalisasi. Hasil penelitian menunjukkan bahwa digitalisasi memberikan berbagai manfaat, seperti peningkatan efisiensi administrasi, kemudahan akses informasi, transparansi keuangan, dan modernisasi sistem pembelajaran. Namun, tantangan seperti keterbatasan infrastruktur, keamanan data, serta potensi penyalahgunaan teknologi tetap menjadi perhatian utama. Dengan pendekatan yang bijak, digitalisasi dapat meningkatkan kualitas pendidikan di pesantren tanpa mengorbankan nilai-nilai tradisional yang menjadi fondasi utama lembaga ini.

Kata Kunci : *Digitalisasi Pesantren, Teknologi Informasi, Pondok Pesntren, Ihyaul Ulum.*

INTRODUCTION

The digitalization of education has become an increasingly important topic in the world of pesantren (Islamic boarding schools). In the digital era, pesantren are no longer mere spectators of technological development, but are actively and strategically utilizing technology wisely. Pesantren can harness digital technology in various aspects, including education, administration, and da'wah (Islamic preaching), while maintaining their identity as traditional Islamic institutions. Constructive steps that can be taken by pesantren in the digital era include: adapting to the times, utilizing digital technology in administration and bureaucracy, utilizing digital technology in da'wah, and reconstructing the curriculum within pesantren education. By taking these steps, pesantren can play an active and progressive role in the digital era. A model that combines pesantren's traditional values with technological advancement will produce quality and relevant education that can meet existing global challenges (Muid et al., 2024).

With the rapid development of information technology in Indonesia, pesantren are positioning themselves as religious institutions that uphold Islamic values in an increasingly complex and evolving era. While maintaining Islamic values, pesantren in the digital era are expected to produce a generation with deep Islamic character, surpassing other educational institutions. Another expectation of pesantren is to shape a generation capable of competing and contributing positively to modern society. As traditional Islamic educational institutions, pesantren play a strategic role in preserving Islamic values amidst the swift pace of the digital era. Pesantren continue to adapt to the changing times without losing their identity. Although they are known for their classical curriculum based on traditional Islamic texts (kitab kuning) and classical teaching methods, pesantren remain committed to their main mission of preserving Islamic values and preparing generations who are ready to face the digital era (Lestari, 2024).

Pondok Pesantren Ihyaul Ulum is one example of a pesantren that has begun to adopt information technology in its institutional system. The digitalization process is a transformation from analog to digital, a process that, consciously or not, has long been underway—from cassette tapes to CDs, and from paper-based documents to digital ones (M.Keb et al., 2022). The devices used in digitalization include both software and hardware. High-quality and well-specified software and hardware are necessary to minimize obstacles and technical problems (Almis & Wijayanti, 2023).

However, the implementation of digitalization in pesantren also faces significant challenges. Many pesantren still struggle with limitations in facilities, human resources, and technological understanding. Therefore, it is essential to conduct an in-depth analysis of the impact of information technology at Pondok Pesantren Ihyaul Ulum, as a step toward understanding how digitalization can be optimized in the context of technological utilization.

Among the challenges faced by pesantren in the digital era is the lack of adequate technological infrastructure, including unstable internet access and insufficient computer equipment. In addition, the protection of student identity

and personal security remains highly vulnerable. In the pesantren digitalization program, it is crucial to ensure the privacy and data security of the students.

Furthermore, pesantren also face external challenges in the form of competition from public and private schools that have emerged and received positive responses from society. This paradigm shift does not have to come at the expense of pesantren identity and traditional values. With the right approach, pesantren can integrate their traditional heritage with modern technology to produce a generation of students who are intelligent, character-driven, and technologically literate in the digital era. The transformation of education is essential to expand the role of pesantren in society. By taking the right steps, pesantren can continue to grow and remain relevant in the digital age.

Pesantren that integrate strong Islamic values with modern education and local cultural wisdom will be capable of producing a generation of students ready to face future challenges (Muid et al., 2024). In addition to the challenges mentioned above, pesantren also face internal challenges. One example is families involved within the pesantren institution, where the utilization of technology can be hindered if any family members oppose the development of information technology. Ultimately, to realize a digitalization program as a form of technology utilization, pesantren and the student community need cooperation from all stakeholders, including the kyai (religious leaders), students, government, alumni, and private sector. This is not an easy task, but one that requires mature strategy (Mustafa et al., 2023).

This research focuses on several key questions that must be addressed to understand the impact of information technology at Pondok Pesantren Ihyaul Ulum. First, how is technology being implemented at Pesantren Ihyaul Ulum? Second, what are the benefits of digitalization programs for students, parents, and pesantren administrators as a symbol of technological advancement? Third, what challenges are encountered in the implementation of technology at the pesantren? By answering these questions, a clearer picture of the state of information technology at Pondok Pesantren Ihyaul Ulum will be obtained.elas mengenai kondisi teknologi informasi di pondok pesantren Ihyaul Ulum.

The aim of this study is to analyze the impact of technology at Pondok Pesantren Ihyaul Ulum. Specifically, the study seeks to, identify the application of information technology at Pesantren Ihyaul Ulum, analyze the perceived benefits for students, parents, and pesantren administrators, and identify the impacts arising from the digitalization of pesantren. The ultimate hope of this study is to contribute to the development of education in pesantren and serve as a reference for other pesantren seeking to embark on digitalization.

METHOD

This research uses a qualitative methodology with data collection techniques such as interviews, observations, and documentation. To obtain diverse perspectives on the digitalization of education, interviews were conducted with the managers of Pondok Pesantren Ihyaul Ulum. Interviews are the data collection method most commonly used in qualitative research (Sarosa, n.d.). Observation was carried out to collect data on the use of information

technology at Pondok Pesantren Ihyaul Ulum (P. M. Afdhal Chatra et al., 2023). The obtained data will be analyzed to identify patterns and relationships between the studied variables.

RESULT AND DISCUSS

Pondok Pesantren Ihyaul Ulum and Pesantren Digitalization

Pondok Pesantren Ihyaul Ulum, located in Manyar Village, Sekaran District, Lamongan Regency, East Java, is one of the well-known pesantren (Islamic boarding schools) in the region. Situated on a plot of approximately 875,000 square meters, the pesantren is located around twenty kilometers from the capital city of Lamongan Regency. Ihyaul Ulum is a historical institution passed down from generation to generation. Initially, it began as a small and modest religious institution, but over time, it has developed into a significant educational center in the area. Pondok Pesantren Ihyaul Ulum was established with the aim of disseminating Islamic knowledge and shaping a generation of youth with noble character and broad knowledge. Since its inception, the pesantren has combined religious education (*diniyah*) with formal education, making it a comprehensive place for students (*santri*) to study and grow.

Pondok Pesantren Ihyaul Ulum Manyar was founded in 1950 by Kyai Haji Abdul Mu'thi. The establishment of the pesantren was driven by the condition of the local community at the time, where there were no institutions providing Islamic religious education, while the people of Manyar and its surroundings were in great need of instruction in *syara'* (Islamic jurisprudence) and worship (*ta'abud*) to Allah SWT. At that time, most of the residents of Manyar and nearby areas were still illiterate, particularly in reading and writing the Qur'an. Over the years, Pondok Pesantren Ihyaul Ulum Manyar experienced significant growth, especially up to the year 1991. After the passing of KH. Abdul Mu'thi, the leadership of the pesantren was continued by his younger brother, KH. Mohammad Ihsan, who later passed away in 1994. Currently, the pesantren is led by KH. Nurul Utsman, the son-in-law of KH. Abdul Mu'thi. (*Profil Pesantren – Pondok Pesantren Ihyaul Ulum Manyar Sekaran lamongan*, n.d.).

Information technology is a technology used to store, generate, process, and disseminate information (Fahrizandi, 2020). With the advancement of information technology, the term "digitalization of pesantren" has become increasingly recognized by the public. The digitalization of pesantren has emerged as an alternative strategy that pesantren can adopt to improve their services. Through digital systems, pesantren are able to convert available information from printed formats into electronic or digital formats, enabling them to provide information services that are more efficient and effective. Furthermore, pesantren administration can become more organized and transparent through digitalization programs as a form of information technology utilization.

The term digital itself refers to a format of reading and writing stored in a computer, laptop, or other technological device (Anjarwati et al., 2022). Meanwhile, digitalization means the process of changing from analog to digital form. In the current digital era, digitalization has had a significant impact on various sectors, including business, education, government, and others (Belva

Saskia Permana et al., 2024). Another meaning of digitalization is the process of transferring information media from analog to digital formats. Broadly speaking, digitalization is the process of converting printed forms into electronic formats through a scanning process to create digital pages suitable for computer storage and transmission. In other words, digitalization is the process of converting data into digital form to be processed via computers (*Pengembangan_Digitalisasi_Perawatan_Kesehatan*, n.d.). From the various definitions provided, it can be concluded that digitalization is the process of changing or transferring analog formats into digital formats using certain tools in the digital age.

The term pesantren originates from the word *santri*, which in turn comes from the Sanskrit root *sa* and the suffix *an*, indicating a specific place. Thus, the term pesantren can be interpreted as a school. In other terms, pesantren is a traditional educational institution and a place of religious study, where a *kiai* imparts Islamic knowledge derived from medieval Arabic works to students, who typically reside in the pesantren or dormitories(Ismayani et al., 2023). If pesantren is interpreted as a place for *santri* (students), then the digitalization of pesantren refers to the process of transitioning from analog to electronic formats using specific tools or media as a means of utilizing information technology.

The digitalization of pesantren is a transformation process from manual or analog systems to digital formats by utilizing information technology. This step aims to improve pesantren services, both in administration, information dissemination, and learning processes. Through digital systems, information that was previously in print form can be converted into electronic formats, making it more efficient, organized, and transparent.

Pesantren, as traditional Islamic educational institutions, can benefit greatly from digitalization, such as increasing educational accessibility, facilitating communication and collaboration, and preparing students to face the digital era. Additionally, digitalization helps pesantren optimize administrative systems, making them more modern and systematic. With the rapid development of information technology, implementing digitalization in pesantren becomes a strategic move to maintain the relevance of Islamic education and ensure that students are well-equipped to face the ever-evolving digital world.

Information Technology Management of Pondok Pesantren Ihyaul Ulum

In the digital era, it is inevitable to engage with social media networks such as Facebook, Instagram, TikTok, and YouTube. These platforms have become essential tools in the dissemination of information, particularly in the field of Islamic preaching (*dakwah*) (Wahyuni & Harahap, 2023). Pondok Pesantren Ihyaul Ulum also utilizes these various social media platforms as a means of sharing information about its activities, current news, and Islamic studies delivered by the caretakers (*pengasuh*) of the pesantren. With the utilization of technology, the *kyai* (Islamic cleric) and the media team at the pesantren are greatly assisted. In particular, it becomes easier for the *kyai* to carry out his role as a cultural broker in introducing the pesantren's values to the

broader society unfamiliar with pesantren life. Through the *kyai's* engagement in social media, it is hoped that a more moderate society will emerge (Humaidi et al., 2024).

Ihyaul Ulum's social media functions as a tool for both information dissemination and *dakwah* through various online media, ranging from Facebook to YouTube. Facebook serves as a platform for sharing information, news, and documentation of pesantren activities in the form of texts, photos, and videos. In addition, Ihyaul Ulum utilizes Instagram to present photos and short videos of student activities, *kitab* studies, and various special moments at the pesantren. Another platform used is TikTok, where the content consists of short, educational videos designed for *dakwah* in an engaging and easily understandable way for the current digital generation. The media team at Ihyaul Ulum also actively utilizes YouTube to broadcast Islamic studies, sermons by the caretakers or teaching staff (*asatidz*), as well as to serve as complete documentation of pesantren activities. All of these platforms are used by Ihyaul Ulum not only to document its activities but also to inform the public about its educational practices and to expand the reach of its *dakwah* efforts (Annasrullah, personal communication, March 14, 2025).

The management of Ihyaul Ulum's social media is handled by a media team consisting of supervisors, senior students, and one teacher who serves as a media advisor. This media team works professionally and with a strong sense of responsibility. The implementation process follows a series of systematic stages. The first stage is planning, which includes preparing documentation materials, such as photographs and others. The second stage is content creation, during which the advisor directly supervises the media team to ensure there is no misuse of pesantren facilities. The final stage is content uploading. In this stage, the media team must seek prior approval from the media advisor and the pesantren caretaker before disseminating any content. If the content involves religious studies or the activities of the caretaker, the supervising teacher must obtain direct permission from him. Content distribution must be conducted carefully to avoid misinformation that may affect the audience. The advisor's role in the social media team is crucial as both supervisor and mentor. The advisor is appointed directly by the head of the pesantren with the approval of the main caretaker of Ihyaul Ulum (Iqbal Nasrullah, personal communication, March 14, 2025).

Through professional and systematic management under the direct guidance of the media advisor, the content published by the Ihyaul Ulum media team remains aligned with pesantren values and Islamic norms. This positively impacts the development of the pesantren, especially in the field of *dakwah*, targeting social media users predominantly from the digital generation (Ilhamuddin et al., 2021). The Ihyaul Ulum media and its platforms serve as a primary source of information about pesantren life for alumni and the broader community. Moreover, the media team's use of social platforms functions as an effective digital tool for pesantren propagation (*syiar*), targeting other pesantren communities beyond Ihyaul Ulum. Ihyaul Ulum's social media also acts as a connector between alumni and the pesantren, helping maintain strong

relationships with former students even after they have left the pesantren. Importantly, the Ihyaul Ulum media also contributes to building a positive image of pesantren in Indonesia(Iqbal Nasrullah, personal communication, March 14, 2025).

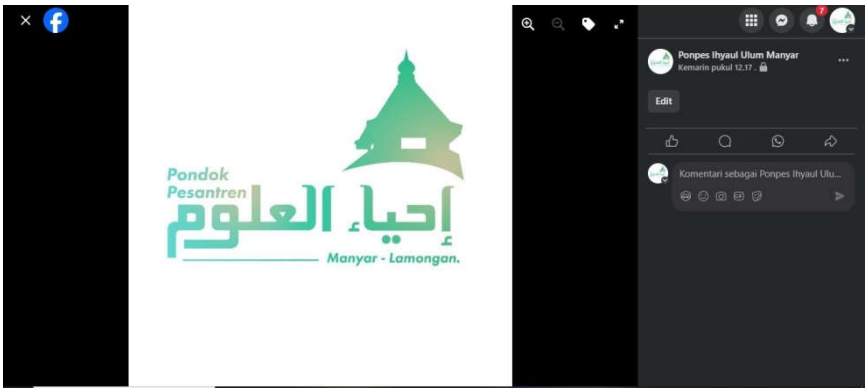


Figure 1. Social Media of Pondok Pesantren Ihyaul Ulum

1. Digital-Based Syahriyah (Meal Fee) Payment

In order to improve the ease and transparency of financial administration, Pondok Pesantren Ihyaul Ulum has implemented a digital-based *syahriyah* (meal fee) payment system through an application. This digitized payment system aims to simplify transaction processes for the students' guardians while reducing the risk of administrative errors that may occur in manual systems. The utilization of digital technology in financial management can play a crucial role in achieving better efficiency, transparency, and accountability (Widodo et al., 2023). The guardians can easily access the payment application, allowing them to fulfill their payment obligations anytime and anywhere without needing to visit the pesantren in person. The use of the payment application is carried out by downloading the "Siske" app from the Play Store; after that, guardians follow the available steps, fill in the required fields, and then top up the balance in the *syahriyah* payment menu available within the app. The funds paid are received in real-time by the main administrator responsible (Lisa Setiawati, personal communication, March 13, 2025).

To facilitate and ensure the smooth use of the payment application, a team consisting of a main administrator and assistant admins has been formed. The main administrator is responsible for the overall management and supervision of the *syahriyah* payment system, while the assistant admins help guardians use the application and handle any technical issues that may arise. The implementation of digital-based *syahriyah* payments offers various benefits, including: a) Ease of transactions for guardians, meal fee payments can be made by guardians anytime and anywhere without having to come directly to the pesantren. b) Transparency and security for students, guardians, and pesantren administrators, with the use of the application, all financial transactions are recorded digitally, thereby reducing the risk of misrecording and ensuring financial transparency. c) Time efficiency in payments, administrative processes become faster and eliminate the need for time-consuming manual records. This application-based payment system enables Pondok Pesantren Ihyaul Ulum to improve its financial management in a more modern, orderly, and professional

manner (Mutammimatul Abidah Azahidah, personal communication, March 13, 2025) .

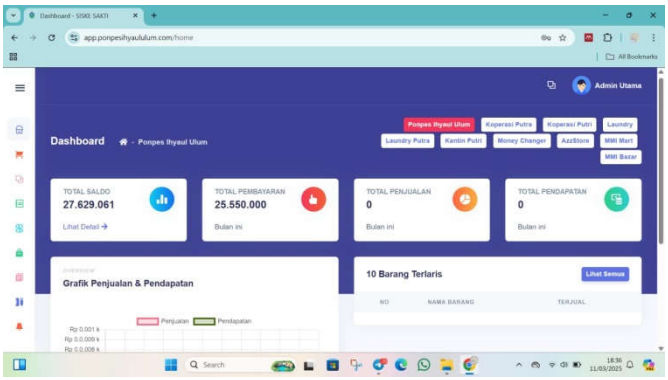


Figure 2. Digital-based Shahriyah Payment

2. Cashless Card Usage

In line with technological advancements and the growing need for a more efficient financial system, Pondok Pesantren Ihyaul Ulum has now adopted a cashless card system as a means of payment for students (santri) within the pesantren. Cashless refers to a non-cash payment tool in the form of electronic money (e-money), either chip-based cards or server-based applications (Putri & Muizzudin, 2022). This system enables students to conduct transactions across various pesantren business units, including the student cooperative, student canteen, laundry service, and the pesantren-owned mini market.

The implementation of the cashless card program at Ihyaul Ulum has had positive impacts on students, their parents or guardians, and the pesantren management. Among these benefits are convenience and transactional security, where students no longer need to carry cash that could be lost or misplaced. This model has made buying and selling activities within Ihyaul Ulum easier, safer, and more practical. Another significant benefit experienced by the management is financial transparency and accuracy, as every transaction made by the students is automatically recorded in the system, allowing parents to easily monitor balance usage through their mobile phones that have the pesantren's application installed. Moreover, the use of cashless cards enhances efficiency in financial administration, as the pesantren no longer needs to manually record each transaction made by the students. The cashless system reduces bookkeeping errors, thereby accelerating the payment process across the pesantren's business units (Mutammimatul Abidah Azahidah, personal communication, March 13, 2025).

The use of the cashless card at Pondok Pesantren Ihyaul Ulum represents an innovative step in modernizing the pesantren's financial system. This system transforms transactions into processes that are more convenient, secure, and transparent, while also assisting the pesantren in improving the efficiency of its financial administration. The cashless card system is envisioned to help students become more disciplined in managing their finances and simultaneously provide parents with greater ease in monitoring their children's expenditures while at the pesantren.



Figure 3. Cashless Card

3. Online Santri Registration

In an increasingly digital era, Pondok Pesantren Ihyaul Ulum has innovated by implementing an online student registration system. This system aims to simplify administrative processes for both prospective students and the pesantren administration. With online registration, student guardians no longer need to come directly to the pesantren to register; instead, they simply fill out a form via Google Forms provided by the new student admissions committee. Google Forms is an application that provides a form template or worksheet that can be used individually or collaboratively for the purpose of collecting user information (Aryanti, 2021).

The online student registration process is carried out through several simple steps. First, prospective students access the registration form via a link officially announced on the pesantren's website or social media platforms. The next step is to fill out the available fields in the Google Form. Once all required information has been completed, the final step involves verification and confirmation from the pesantren. Prospective students will receive confirmation via WhatsApp or email regarding the next steps, including the schedule for uniform collection and placement tests (Bahrudin Zein, personal communication, March 10, 2025).

With this type of online program, the registration process for new students becomes more practical and time-efficient. Prospective students no longer need to travel to the pesantren just to register; they can simply access the form from home. Moreover, with the digital format, all data is well-organized and more easily accessed by the administrative team. This makes it possible for the administration to immediately notify prospective students via WhatsApp or email if there are any errors in the submitted data. Such a system significantly assists the administration in avoiding data recording errors that often occur in manual registration processes.

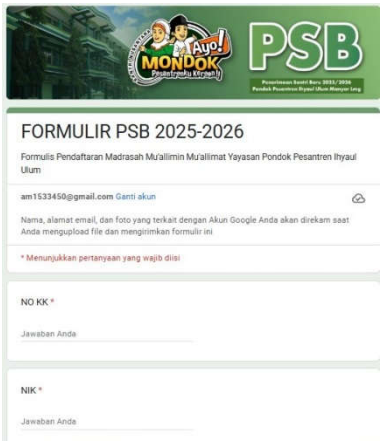


Figure 4. Google New Santri Registration Form

4. Website of Pondok Pesantren Ihyaul Ulum

In line with technological advancements and the increasing need for fast and accurate access to information, Pondok Pesantren Ihyaul Ulum operates a website managed by Ust. Hasanuddin, who is responsible for the education division. He is tasked with ensuring that all content presented on the website is beneficial for students, their guardians, and the general public. With the growing number of internet users each year, regardless of age, the internet offers a wide range of services—one of which is the website. A website is one of the fastest media to present information about a particular subject to online visitors (Arafat et al., n.d.). The website of Pondok Pesantren Ihyaul Ulum serves several primary functions. The first function is to act as an information center for the pesantren, featuring themes such as the pesantren's profile, its founding history, and its vision and mission, which serve as the educational foundation at Ihyaul Ulum. The website also provides information regarding both formal and non-formal educational programs available at the pesantren. The second primary function is as a platform for Islamic da'wah and studies, featuring articles on Islamic teachings and discussions on classical Islamic texts, or *kitab kuning* (Hasanudin, personal communication, March 10, 2025).

With the existence of this official website, Pondok Pesantren Ihyaul Ulum has become more accessible to the wider public. Several advantages offered by the pesantren's website include: 1) Easy access anytime and anywhere. 2) Regularly updated information. 3) Easier access for student guardians to academic and administrative information. 4) A digital platform for da'wah that reaches a broader (Hasanudin, personal communication, March 10, 2025).

The website has become a modern medium for Muslims to access references for living a life in accordance with religious teachings. Unutilized media time presents an open opportunity to address shifts in Islamic da'wah. The use of the web as a new medium runs in parallel with the imagination and progress of the younger generation in utilizing computerized spaces for the continuation of Islamic preaching (Mutakin et al., 2023). The website of Pondok Pesantren Ihyaul Ulum is not merely an informational platform; it is also a means to spread knowledge and conduct da'wah more broadly. With proper management, this website can continue to grow and provide significant benefits

for the pesantren, students, their guardians, and society in general. The presence of this website also serves as evidence that pesantren can adapt to technological developments without abandoning the Islamic values that are their foundational core.



Figure 5. Website of Pondok Pesantren Ihyaul Ulum

5. Sambangan Program

Pondok Pesantren Ihyaul Ulum continues to innovate by developing an educational system that remains relevant to the times without abandoning Islamic values. One of the programs implemented is the biweekly "sambangan" program, which provides students with the opportunity to access information from outside the pesantren using mobile phones in a limited and controlled manner. This program aims to broaden students' access to knowledge while equipping them with the skills to use technology wisely and responsibly (Rizki Aditya Pratama, personal communication, March 10, 2025).

To ensure this program runs smoothly and does not disrupt pesantren life, the management of the program is directly overseen by the pesantren administration. Several rules and supervision mechanisms govern mobile phone usage during sambangan at Ihyaul Ulum. Usage is strictly limited to the official sambangan hours—from the time it begins until it ends. Afterward, all students are required to return their phones either to their visiting parents or to the pesantren's security staff. If a student insists on using a phone outside of the designated time, they will receive an *educative ta'zir*. *Ta'zir* means a sanction or penalty, referring to the punishment given to someone for violating established rules. According to the *Kamus Besar Bahasa Indonesia*, a sanction is a punitive measure taken to compel someone to obey rules or laws. Meanwhile, *educative* means something that is educational in nature. It originates from the English word *educate*, which relates to the act of teaching. Therefore, an educative punishment is a corrective measure intended to instill a sense of regret in the student for behavior that does not align with accepted values (Sultan et al., 2025). Through the implementation of educative sanctions, students at Ihyaul Ulum are encouraged to become more disciplined and responsible in following the pesantren's rules.

The positive impact of this sambangan program is that it educates students to use digital technology for positive purposes. The program also prevents the misuse of mobile phones outside the pesantren's supervision. In

addition, sambangan helps strengthen the bond between students and their parents without disrupting the intensity of their studies. One of the most important benefits of sambangan is maintaining a balance between the disciplined life of the pesantren and the increasingly complex development of technology. With clear regulations and strict supervision by the pesantren administrators, students can use technology wisely, productively, and in accordance with Islamic teachings (Saragih et al., 2024).

Impact of Information Technology of Pondok Pesantren Ihyaul Ulum

1. Positive Impacts of Information Technology at Pondok Pesantren Ihyaul Ulum

The implementation of information technology at Pondok Pesantren Ihyaul Ulum has significantly enhanced administrative efficiency. Through the pesantren's digitalization program, administrative processes have become more organized. For instance, digital-based payment systems for *syahriyah* (meal fees) and the use of cashless cards for student transactions have streamlined financial management. In addition, technology has reduced the likelihood of administrative errors and improved financial transparency.

Information technology also facilitates broader access to information and communication for the pesantren community and the public. The utilization of social media platforms and the pesantren's official website has played a major role in disseminating important educational and *dakwah* messages. These platforms serve as effective tools for communicating with the wider society. Moreover, the digitalization of the student registration process has made it easier for prospective students and their families to manage registration from home, increasing efficiency and convenience.

The integration of technology has modernized both education and *dakwah* at Pondok Pesantren Ihyaul Ulum. The pesantren's media team actively uses platforms such as YouTube, Instagram, Facebook, and TikTok to deliver religious content to a broader audience, making Islamic teachings more accessible. Additionally, the biweekly *sambangan* program allows students limited access to mobile phones under strict supervision, enabling them to stay connected with current information and maintain a controlled link to the outside world.

Furthermore, the digital era demands that students be prepared to engage with technology in positive and productive ways. At Ihyaul Ulum, students are encouraged to use the internet for religious study and to strengthen their digital literacy skills. This approach helps equip them to navigate modern work environments and social contexts while preserving Islamic values. The pesantren's digitalization initiative supports students in adapting to technological advancements without compromising their spiritual identity.

2. Negative Impacts of Information Technology at Pondok Pesantren Ihyaul Ulum

Despite its advantages, the implementation of information technology at Pondok Pesantren Ihyaul Ulum also presents several challenges. One of the main issues is the lack of sufficient infrastructure and resources. As technological needs increase, the pesantren faces limitations in providing the necessary

facilities. Problems such as unstable internet connections and inadequate technological devices are common. Additionally, there is a shortage of human resources with expertise in technology, making it difficult to develop and maintain the systems in place.

Another concern is the risk to data security and privacy. As the pesantren continues to digitize its operations, there is potential for breaches involving sensitive student and administrative information. Without strong data management and protection systems, these risks could result in serious consequences. Therefore, a secure information system is urgently needed to safeguard student identities and important institutional data.

The potential misuse of technology within the pesantren is also a growing concern. Easy access to the internet increases the risk of students engaging with inappropriate online content. In response, the pesantren has implemented regulations on mobile phone use through the sambangan program, aiming to educate students on responsible digital behavior. Without such rules, students may use the internet in ways that conflict with pesantren values and become overly dependent on technology. This overreliance can weaken social interactions and reduce engagement with traditional Islamic learning methods, such as the study of classical kitab kuning texts.

Finally, the process of digitalization has placed Pondok Pesantren Ihyaul Ulum in direct competition with other modern educational institutions, including nearby schools and pesantren that have adopted technology earlier. This situation necessitates the development of effective strategies to ensure that the pesantren can maintain its unique Islamic educational identity while keeping pace with advancements in information technology.

CONCLUSION

The digitalization of pesantren is a strategic step in responding to the advancement of information technology, as implemented at Pondok Pesantren Ihyaul Ulum. The utilization of technology in administration, pesantren governance, and da'wah (Islamic preaching) has brought positive impacts, including increased management efficiency, financial transparency, and easier access to information for students, their guardians, and the broader community.

Although information technology offers many benefits for the development of pesantren, there are also challenges that must be addressed, such as limited technological infrastructure, the protection of student data, and the potential misuse of technology. Therefore, appropriate strategies are needed so that information technology and the pesantren digitalization programs can be optimized without sacrificing the traditional values of the pesantren. With a wise approach, pesantren can remain relevant and continue to contribute to the development of a generation of students who are intelligent, possess strong character, and are well-prepared to face the digital era.

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