



Research Article

The Use Of Information Technology In Madrasah Archival Administration

Junita Putri¹, Iqbal Amar Muzaki², Wahidin³

1. Universitas Singaperbangsa Karawang

E-mail: 2210631120085@student.unsika.ac.id 

2. Universitas Singaperbangsa Karawang

E-mail: iqbalamar.muzaki@staff.unsika.ac.id

3. Universitas Singaperbangsa Karawang

E-mail: wahidin@fai.unsika.ac.id



Copyright © 2026 by Authors, Published by AL-AFKAR: Journal For Islamic Studies. This is an open access article under the CC BY License (<https://creativecommons.org/licenses/by/4.0>).

Received : February 25, 2026
Accepted : April 12, 2026

Revised : March 27, 2026
Available online : May 14, 2026

How to Cite: Junita Putri, Iqbal Amar Muzaki and Wahidin, W. (2026) "The Use Of Information Technology In Madrasah Archival Administration", *al-Afkar, Journal For Islamic Studies*, 9(2), pp. 2110-2124. doi: 10.31943/afkarjournal.v9i2.3351.

Abstract. The integration of information technology in madrasah institutions has brought new challenges, especially for administrative staff who lack the digital literacy necessary to operate these systems effectively. This technological gap hinders their ability to adapt to modern advances, resulting in operational inefficiencies. In the context of records management, it is essential for staff to optimize technology to facilitate document access and retrieval. This article aims to explore the use of information technology in school archiving systems and highlight its positive impact on madrasah

institutions. Using a descriptive qualitative approach through a literature review, data were collected by systematically analyzing relevant books, journals, and academic articles. The findings show that the implementation of adaptive information technology in archive administration significantly improves school management. This transition is vital for the continuous improvement and future development of madrasah institutions. Ultimately, this study serves as a comprehensive reference for optimizing information technology in archive administration.

Keywords: Information Technology, Archive Administration, Document Access, Records Management.

Abstrak. Integrasi teknologi informasi di lembaga madrasah telah menghadirkan tantangan baru, terutama bagi staf administrasi yang kurang memiliki literasi digital yang diperlukan untuk mengoperasikan sistem ini secara efektif. Kesenjangan teknologi ini menghambat kemampuan mereka untuk beradaptasi dengan kemajuan modern, yang mengakibatkan inefisiensi operasional. Dalam konteks pengelolaan arsip, sangatlah penting bagi staf untuk mengoptimalkan teknologi guna memfasilitasi akses dan pencarian dokumen. Artikel ini bertujuan untuk mengeksplorasi penggunaan teknologi informasi dalam sistem pengarsipan sekolah dan menyoroti dampak positifnya terhadap lembaga madrasah. Dengan menggunakan pendekatan kualitatif deskriptif melalui studi literatur data dikumpulkan dengan menganalisis secara sistematis buku, jurnal, dan artikel akademis yang relevan. Temuan menunjukkan bahwa penerapan teknologi informasi adaptif dalam administrasi arsip secara signifikan meningkatkan manajemen sekolah. Transisi ini sangat penting bagi perbaikan berkelanjutan dan pengembangan masa depan lembaga madrasah. Pada akhirnya, penelitian ini berfungsi sebagai referensi komprehensif untuk mengoptimalkan teknologi informasi dalam administrasi arsip.

Kata Kunci : Teknologi Informasi, Administrasi Arsip, Akses Dokumen, Manajemen Arsip.

INTRODUCTION

In the era of the 4.0 industrial revolution, Indonesian society has become increasingly familiar with the internet and the world of digitalization.¹ Almost all areas of life, from education, economy, social, politics, culture, and entertainment, are inseparable from information technology. The government needs to address emerging phenomena and develop strategies to focus on modern technological advances. The use of technology in communication, information, and digital media is essential in maintaining a healthy lifestyle.

Especially in the field of education during the digital era, archiving has undergone many changes. Advances in information and communication technology have brought new opportunities and new challenges for educational archiving. Now, archives are used as institutional resources to achieve educational goals and visions. Archives play a very important role in the sustainability of institutions today and in the future.

¹ Rio Febriannur Rachman, "Pemanfaatan Teknologi Informasi Dan Komunikasi Dalam Administrasi Pengarsipan Di Surabaya," *Idarotuna : Journal of Administrative Science* 4, no. 1 (2023): 81-96, <https://doi.org/10.54471/idarotuna.v4i1.48>.

Many institutions still manage official documents manually, using paper, storing them with other people, putting them in cabinets, or keeping them on shelves. This is still the case in many madrasah institutions, and in today's information technology era, this poses its own challenges. Every institution must ensure that it manages the archives and documents produced during its activities or responsibilities. Therefore, the application of basic office management concepts in the world of education is very important, especially in terms of the archiving process in schools. Archiving is an administrative aspect that supports the smooth operation of schools, including the effective and efficient management of documents and archives.

According to Ig Wursanto 1989 (Mahmud, 2016: 1) archiving is the process of organizing archives using a specific system so that they can be quickly retrieved when needed.² Digitally archived documents can only be accessed through devices such as computers, and as technology advances, internet connectivity is required. From a protection and security perspective, digital archives are vulnerable to virus attacks, and their formats are more prone to corruption and becoming unreadable. Although electronic archives save space, the volume of archives has increased significantly because documents have become easier to create and share. In fact, one of the most common problems is the institutional perspective, which often views the transition from paper-based management to digital management as merely a technical factor.³

Technologies such as digital door security systems, surveillance cameras, and facial recognition technology enhance school security. Specialized software, which helps in tracking and managing office supplies and equipment, also aids in school inventory management. The use of technology not only improves operational efficiency but also creates a more flexible and results-oriented learning environment. Through online training, webinars, and digital resources, administrative staff are able to grow professionally.⁴ However, implementing this technology requires significant investment and adequate training to ensure that administrative staff are competent in operating information technology.

Efforts to convert the archiving system from manual to digital formats in madrasah institutions often encounter obstacles in practice. Therefore, the main challenge in digitizing madrasah institutions is not merely the procurement of infrastructure, but rather the level of information and communication technology (ICT) literacy among educators, which still needs to be continuously improved so that service innovation and archive management can run smoothly. This weakness in human resources has been widely discussed, but specific literature reviews that can

² Melizubaidah Mahmud, "PENTINGNYA MANAJEMEN SISTEM PENYIMPANAN ARSIP," 2016, 1-23.

³ Tengku Darmansah et al., "Transformasi Digital Dalam Manajemen Persuratan Terhadap Perubahan Proses Dan Peran Teknologi," *Jurnal Penelitian Ilmu-Ilmu Sosial* 1, no. 11 (2024): 296-300, <https://doi.org/10.5281/zenodo.11634738>.

⁴ Rudolf Kempa, Desembra Sohilit, and Asep Asep, "Peningkatan Kapasitas Guru Berbasis Manajemen Kurikulum Di Kabupaten Kepulauan Aru," *German Für Gesellschaft (J-Gefüge)* 2, no. 1 (2023): 9-14, <https://doi.org/10.30598/jgefuege.2.1.9-14>.

be applied are still very limited.⁵ To address this gap, this article focuses on exploring various literature related to the role of information technology and its adaptive benefits for educational administration staff in improving digital literacy.

RESEARCH METHOD

The method used is a literature review approach, also known as a bibliographic study. This approach includes strategies such as reading, noting, and processing data from literature searches in the form of books, magazines, journals, and other supporting articles so that this article focuses on descriptive qualitative analysis by compiling the data that has been collected, then systematically organized, and drawing conclusions.⁶ The literature search was conducted using the Google Scholar and Garuda Portal databases, referring to journal articles published in the last five years (2019-2024).

The literature review method was chosen for this article due to its ability to gather in-depth and relevant data on archival science and information technology. The choice of this descriptive qualitative approach is based on the research objective, which aims to explore the phenomenon of technology integration in madrasah management in a contextual manner, rather than to measure variables numerically. The use of a comprehensive literature review allows the researcher to remain at the forefront of research practice, ensuring that the resulting synthesis is relevant to current digitization challenges.⁷

Additionally, this method was chosen for its efficiency in terms of resources and time, as the use of secondary data from journals and books allows for extensive analysis without the significant costs associated with field data collection. The entire process of literature search and analysis was conducted with a commitment to academic integrity and research credibility to ensure that the results obtained are valid and reliable for the development of archival administration in madrasah institutions.

RESULTS AND DISCUSSION

Information Technology

The term technology comes from "technologia" and can also be traced back to "techno." Both words denote expertise and knowledge. Thus, technology can generally be understood as a form of expertise or concept related to knowledge. However, the definition of technology is limited to tangible objects in the form of equipment or machines.⁸

⁵ Amirudin, Iqbal Amar Muzaki, and Ceceng Saepulmilah, *Pengaruh Kompetensi Profesional Dan Literasi Teknologi Informasi Komunikasi Guru PAI Terhadap Inovasi Pembelajaran (Penelitian Di Sekolah Tingkat Dasar Wilayah Desa Waluya Kutawaluya Karawang)* (Hibah Penelitian Universitas Singaperbangsa Karawang, 2023).

⁶ Andre Febrianto, Rusdy A Siroj, and Hartatina, "Studi Literatur: Landasan Dalam Memilih Metode Penelitian Yang Tepat," *Journal Educational Research and Development* | E-ISSN : 3063-9158 1, no. 2 (2024): 259–63, <https://doi.org/10.62379/jerd.v1i2.142>.

⁷ Febrianto, Siroj, and Hartatina.

⁸ Abdul Karim et al., *Pengantar Teknologi Informasi*, 2020, <http://motic.uad.ac.id/>.

Information technology is an electronic device designed to handle data, enabling the processing, storage, and transmission of information through various methods. The goal is to produce relevant, accurate, and timely quality information that is suitable for personal, educational, business, and government applications, which serves as strategic information for proper decision making.

Several experts define information technology, including:

According to William & Sawyer (2003), information technology refers to technology that integrates computers with high-speed communication lines capable of transmitting data, voice, and video. This definition shows that information technology basically consists of two main elements, namely computer technology and communication technology. Computer technology is technology related to computers, including computer equipment. Conversely, communication technology relates to devices used for long-distance communication, such as telephones, fax machines, and televisions.⁹

Meanwhile, Martin (1999) expands on this definition, stating that technology not only includes computer technology (both hardware and software) used in information processing, but also includes communication technology that facilitates information transmission.¹⁰ Meanwhile, Maryono and Istiana (2008) describe information technology as a system or procedure used by individuals to communicate messages and information, also referred to as information technology. This definition can be expanded to include the use of computer devices as tools for managing, presenting, and processing data and information through communication equipment.¹¹

However, implementing this technology requires significant training to ensure that administrative staff are competent in operating information technology. The implementation of digital archiving in madrasahs does not only depend on the availability of hardware and software. Recent research indicates that digital literacy acts as a catalyst that stimulates an individual's intrinsic motivation to manage digital platforms efficiently. With adequate digital literacy, administrative staff will have higher confidence in navigating information systems, which ultimately increases the effectiveness of school administrative services.¹²

With adequate digital literacy, administrative staff will have greater confidence in operating information systems, which will ultimately improve the effectiveness of school administrative services. In this context, improving digital literacy among educators in madrasahs is crucial, given the competency gap between senior and junior staff in operating information technology devices. This aligns with the findings of Lesasunanda & Malik (2024), who state that digital literacy is not merely a technical skill but a strategic

⁹ M Husani, "Pemanfaatan Teknologi Informasi Dalam Bidang Industri Otomotif," *Jurnal Sistem Informasi Universitas Suryadarma* 6, no. 1 (2014), <https://doi.org/10.35968/jsi.v6i1.282>.

¹⁰ Bayu Rianto and Welly Dozan, *Pengantar Teknologi Informasi* (Malang: CV. Multimedia Edukasi, 2016).

¹¹ Nurjanh et al., "Pemanfaatan Teknologi Informasi Dan Komunikasi Dalam Layanan Administrasi Sekolah Di SMA N 5 Merangin," *INNOVATIVE: Journal Of Social Science Research* 3, no. 4 (2023): 2490–98.

¹² Wahidin Wahidin et al., "Digital-Based Education in the Era of Society 5.0: Synergy of Digital Literacy and Learning Motivation to Improve Student Learning Outcomes ARTICLE HISTORY," *Jurnal Manajemen Pendidikan Islam* 10, no. 1 (2025): 135–52, <https://doi.org/10.14421/manageria.2025.101-08>.

investment to enhance the quality of services in educational institutions in the digital era.¹³

Based on the opinions of the experts above, it can be concluded that information technology is the combination of computer technology and communication technology to facilitate, manage, process, and transmit data, voice, and video. Furthermore, information technology functions not only as a tool for data processing but also includes all processes that enable the effective delivery and management of information.

The Benefits of Information Technology in Education

The rapid advancement of information technology offers great hope for improving the quality of education. As a product of this technology, the Internet offers unlimited access to information on almost any topic, which can be used to promote educational development. With the Internet, learning is no longer limited by space and time. The evolution of information and communication technology, from basic to highly advanced (such as IT and the Internet), is poised to have an increasingly profound impact on human existence.

This includes technological literacy, which enriches and deepens knowledge, ultimately leading to a new generation of insights and innovations in information and communication technology. Furthermore, while technology positively enriches the diversity of human experiences and the enjoyment it brings, it also risks damaging the noble values of life because today's culture prefers.¹⁴

To utilize information technology in the educational process, several development steps can be taken, including: 1) developing database applications to store and manage academic data, such as lecture systems, assessment systems, curriculum details, education management, and learning resources; 2) creating web-based and interactive portal-based learning applications that feature tutorials and educational tools (e-learning); 3) increasing the use of educational television as supplementary material to improve the quality of education; and 4) implementing the system gradually, starting on a smaller scale and gradually expanding, to streamline the management of IT integration in education.¹⁵ According to Munir (2009), the use of ICT to facilitate educational activities includes:

- a. Obtaining various information from various sources using the internet and applied ICT, then utilizing this information as a simple, fast, and inexpensive source of information that supports education.
- b. The internet is used to disseminate information to many people, reaching most parts of the world. Information can be accessed regardless of location, distance, and time, and can be done anywhere and anytime.
- c. In distance learning, teachers consult with students and other teachers, maintaining distance because there is no direct physical contact. With the help of the internet,

¹³ Rizka Aifa Lesasananda and Abdul Malik, "Peningkatan Kualitas Guru Melalui Literasi Digital Di MAN 1 Sumbawa Barat," *Jurnal Ilmiah Profesi Pendidikan* 9, no. 3 (2024): 1904–15, <https://doi.org/10.29303/jipp.v9i3.2365>.

¹⁴ Syasmita, "Prosiding Seminar Nasional Tahunan Fakultas Ilmu Sosial Universitas Negeri Medan Tahun," *Kompetensi Dan Peran Guru Dalam Pembelajaran* 2, no. January 2017 (2017): 293–97, <http://semnasfis.unimed.ac.id>.

¹⁵ Husani, "Pemanfaatan Teknologi Informasi Dalam Bidang Industri Otomotif."

teachers can facilitate the learning process. The internet can also be used as a medium for conveying information in various places or situations. For example, WhatsApp, email services, chat rooms, and so on.

- d. Digital libraries that facilitate access to information sources or online information sources without time and distance limitations.
- e. Online learning, or learning with computers and the internet. The internet facilitates the implementation of lessons and the delivery of lessons to students without the need for physical meetings. Online classes also allow students to ask questions, share ideas, and discuss with other students, teachers, or tutors. Online educational materials are designed to be communicative, interactive, and interesting. These qualities are intended to improve the quality of the learning process, resulting in better outcomes than traditional classroom learning.

Based on the opinions of the experts above, it can be concluded that the use of the internet and information technology in education facilitates access to information from various sources quickly, cheaply, and efficiently. Technology supports the dissemination of information without time and place restrictions, enabling distance learning, access to digital libraries, and interactive and communicative online learning. With various applications such as WhatsApp and email, the internet facilitates consultation, discussion, and material delivery, thereby improving the overall quality of learning.

The Role of Information Technology in Education

Education plays a crucial role in shaping a person's life, influencing their future and the direction they take. Although there may be differences of opinion on this matter, education is essentially a vital human need, enabling the development and refinement of a person's skills and talents. In addition, education often acts as a standard for assessing the quality of individuals.

With the emergence of Information and Communication Technology (ICT), traditional learning methods have undergone a profound transformation shifting from a focus on physical presence to a more mobile approach, moving from paperbased resources to online platforms, and evolving from physical infrastructure to network-based systems, all while shifting from a cyclical time frame to real-time interaction. As a result, it is highly likely that learning is no longer conducted solely through face-to-face interactions in the classroom.

Teachers and students, as well as lecturers and students, can engage in the educational process through ICT devices. These technological advances increase efficiency in terms of time and cost. Currently, the field of e-learning is growing rapidly, enabling simultaneous development in teaching, task sharing, and online assignment submission.

Today, information technology is crucial as it allows users to access its capabilities with just one click. The information processed includes not only text but also images and videos, extending to multimedia formats. Computers can be used in various ways, including writing, drawing, editing photos, playing videos or music, and analyzing research data or overcoming various challenges. Information technology can be applied

in various sectors, including society, industry, education and training, management and business, as well as law enforcement and government.¹⁶

The functions of Information and Communication Technology in Education according to show that ICT plays many roles in the field of education, such as:¹⁷

- a. ICT as a skill and competency. This indicates that the application of ICT must be balanced so that it can reach all levels of society according to their respective proportions.
- b. ICT as learning infrastructure, which refers to the accessibility of educational resources in digital format, with networks functioning as schools, enabling learning to be accessed anytime and anywhere.
- c. ICT functions as a provider of educational resources. This involves learning materials and books that are continuously updated through the use of technology. Without technological advances, keeping up with developments in educational content can be a time-consuming process.
- d. The role of ICT as a learning tool and resource. It is well understood that ICT resources significantly enhance the educational experience. For example, when information is delivered through multimedia tools, it becomes more relevant to students. The variety of multimedia options not only helps students absorb information better but also encourages them to engage more actively in learning and broaden their understanding.
- e. ICT as a support for learning management. Learning management is significantly supported by ICT, as continuous support for learning is essential for every individual.
- f. ICT as a system to support decision making. Everyone has their own motivations for making choices. Therefore, it is important to have information based on existing facts to guide the decision making process.

Records Management

1. Administration

Administration in the narrow sense comes from the Dutch word "administratie," which includes recording, bookkeeping, correspondence, typing agendas, and other activities of a technical administrative nature. Meanwhile, administration in a broad sense refers to a collaborative process in which two or more people at the organizational level support and complement each other according to their respective main tasks and functions to achieve certain goals in an efficient and effective manner.¹⁸ According to experts in administrative science, the definition of administration is as follows:

According to Sondang P. Siagian, administration is the entire process of implementing decisions that have been made, and this implementation is usually carried out by two or more people to achieve predetermined goals. Meanwhile, according to Herbert Simon, administration is defined as cooperative group activities to achieve

¹⁶ Karim et al., *Pengantar Teknologi Informasi*.

¹⁷ M Mustari, "Teknologi Informasi Dan Komunikasi Dalam Manajemen Pendidikan." (Gunung Djati Publishing Bandung., 2023).

¹⁸ N Indika and S Adia, "Pengaruh Komitment Organisasi Dan Organizational Citizenship Behavior (OCB) Terhadap Kinerja Karyawan (Studi Kasus Pada Karyawan PT Ladava Multi Logistics Jakarta).," *Jurnal Administrasi Bisnis*, 2021, 1(2), 64-73.

common goals. Another view from Herbert Simon defines administration as cooperative group activities to achieve common goals.

Dwight Waldo defines administration as cooperative efforts that have a high level of rationality. Dimock state that administration is the science of studying what the community wants through the government and how the community obtains it.¹⁹

The opinions of the experts above conclude that administration requires cooperation and collaboration between two or more people in an organization to effectively achieve predetermined goals. Administration not only encompasses technical tasks but also managerial and collaborative elements. Therefore, management is a process involving the management and implementation of decisions by many people within an organization, with the aim of achieving common goals efficiently and effectively.

2. Archiving

According to Law Number 43 of 2009, archives are defined as "records of events or activities received by state institutions, local governments, companies, political organizations, madrasah institutions, and individuals for the purpose of organizing community life in various forms and social media in line with developments in communication and information technology." This definition indicates that archives are written documents containing important information. Archives have a vital function in an institution, namely as a place to store information or a memory center for leaders to formulate policies and make decisions. To ensure the provision of accurate and complete information, effective procedures and a robust system are required in archive management.²⁰

According to various experts, the definition of archives has many interpretations. For example, Sugiarto & Wahyono (2015:2) define archiving as the process of organizing and storing letters or files in an archive so that they can be found again when needed. Thus, it can be concluded that archives serve as written evidence of an organization's objectives, manifested in the form of letters, documents, and manuscripts containing information created and received by companies or agencies.²¹

Meanwhile, Mulyono, Partono, and Kuswanto state that archives are stored documents that have informational value. Therefore, effective and efficient archive management is very important. The basis of archive management is storage, placement, and retrieval. Archiving has several purposes, namely as a reference or legal evidence when needed, as a source of data, and as a preservative of historical information.

Meanwhile, Ana Pujiastuti categorizes the functions of archives into four main interests, namely: (1) archives are very important for human life, (2) archives are very important for the administration of organizations because no administrative process can

¹⁹ Lina Marliani, "Definisi Administrasi Dalam Berbagai Sudut Pandang," *Jurnal Fakultas Ilmu Sosial Dan Ilmu Politik Universitas Galuh* 5, no. 4 (2018): 18–19, <https://jurnal.unigal.ac.id/index.php/dinamika/article/view/1743/1407>.

²⁰ Aria Mulyapradana, Ary Dwi Anjarini, and Nanang Hermanto, "Pengelolaan Arsip Dinamis Inaktif Di Lembaga Pendidikan Sekolah Menengah Kejuruan," *Widya Cipta: Jurnal Sekretari Dan Manajemen* 5, no. 1 (2021): 60–68, <https://doi.org/10.31294/widyacipta.v5i1.10037>.

²¹ Melinda Resti Susanti and Durinda Puspasari, "Analisis Sistem Penyimpanan Dan Prosedur Temu Kembali Arsip Dinamis Di PT Artojoyo Langgeng Jaya Abadi (JH Tech Sidoarjo)," *Jurnal Pendidikan Administrasi Perkantoran (JPAP)* 8, no. 2 (2020): 241–51.

ignore their existence, (3) archives serve as an authentic source of information, making them indispensable in modern life, and (4) archives as records of contemporary activities and events marked by extraordinary technological advances, further increasing the potential of archives to document these events.²²

Based on the opinions of the experts above, it can be concluded that archives serve as documented evidence of an organization's objectives, represented through letters, documents, and manuscripts containing information produced and received by a company or institution. Effective archive management ensures that information is easily stored and accessible when needed.

3. Archival Administration

According to A. W. Widjaja (1986: 7-8), archive management is the activity of storing letters or documents, which includes various activities related to the receipt, recording, delivery, storage, and destruction of letters or various other types of documents. Meanwhile, according to The Liang Gie (1986: 28), records management is a series of activities that regulate archives from the time documents are collected until they are destroyed. In addition, according to Saiman (2002: 104), records administration is a job that produces archives in planning, implementation, and supervision.

Based on the definitions provided by the experts above, it can be concluded that records management can be defined as a series of activities related to the management of archives, from receipt, recording, storage, maintenance, to reduction and destruction. With a good system and effective management, archives can serve as a valuable source of information for organizations, support decision-making, and maintain accountability.

Utilization of Information Technology in Madrasah Institutions to Facilitate Access to Filing Administration

The development of the times cannot be separated from advances in information technology, and all activities always use and utilize this medium. The benefits can be in the form of communication, education, and information. The education sector is a field that enhances the intelligence of the nation and must be able to keep up with technological advances. An approach as a form of technical support in the education sector is the implementation of the independent curriculum established by the government²³. Due to the implementation of creative and innovative learning processes, the use of technology by educators and students is necessary during the implementation of the curriculum.

Various applications of information and communication technology in society have also been widely utilized and optimized for educational needs, making information technology play a role in education as a knowledge base, learning tool, competency

²² Muslih Fathurrahman, "Pentingnya Arsip Sebagai Sumber Informasi," *Jurnal Ilmu Perpustakaan Dan Informasi* 3, no. 2 (2018): 215-25.

²³ Andika Prajana and Yuni Astuti, "Pemanfaatan Teknologi Informasi Dan Komunikasi Dalam Pembelajaran Oleh Guru SMK Di Banda Aceh Dalam Upaya Implementasi Kurikulum 2013," *JINOTEP (Jurnal Inovasi Dan Teknologi Pembelajaran): Kajian Dan Riset Dalam Teknologi Pembelajaran* 7, no. 1 (2020): 33-41, <https://doi.org/10.17977/umo31v7i12020p033>.

standard, educational facility, school management aid, and administrative support and service.²⁴

The information repository required in the world of education is crucial to support the learning process. With the use of technology, all managed information can be easily collected. This process is often referred to as document digitization. Digitization is an effort to maintain ownership of information that is collected and recorded properly in digital form. Archives are very important for an institution as a provider of information needed to formulate policies and decisions so that the institution ultimately produces accurate and complete information in accordance with the procedures established in management (Fitri, 2020: 2).

Archives also have broader implications, namely as a tool to help remember documents in carrying out activities. Piles of paper and documents in drawers and filing cabinets give a deep impression in the world of archives. If archives or files are not neatly organized into groups, it will be difficult to find the information needed. Technological advances offer means to improve the archiving process, especially in madrasah institutions that need reliable sources of information that can be accessed by academics for knowledge acquisition and learning. When developing digital archives, it is important to consider the long-term implications, as the continuous addition of documents must take into account the available storage space and capacity. Effective archive management is essential to ensure that all information and documents are well organized, especially in an educational environment.²⁵

However, the implementation of this technology in various madrasah institutions reveals a dynamic interplay between enabling factors and significant barriers. To provide a clearer picture based on the literature review, the following table summarizes these factors which are cited from Raiska Salsabila (2025) in the study titled Analisis Kesiapan Madrasah Dalam Transformasi Digital Arsip di Madrasah Tsanawiyah (MTs) Raudlatul Muta'allim Jember.²⁶

Drivers and Barriers to the Digitization

| Category | Theoretical Synthesis | Review Findings |
|-----------------------------|---|---|
| Infrastructure & Technology | Unrestricted internet access, availability of hardware (scanners, computers), and network system integration. | Budget constraints for specialized software and data security vulnerabilities (viruses/file corruption) |

²⁴ Achmad Yudhi and Nadra Amalia, "Desain Media Pembelajaran Berbasis Daring Memanfaatkan PortalSchooly Pembelajaran Apresiasi Sastra," *Basastra: Jurnal Kajian Bahasa Dan Sastra Indonesia*, no. 7(1) (2018): 14–22.

²⁵ F. Safira et al., "Peran Arsip Dalam Pelestarian Cagar Budaya Di Indonesia: Sistemika Review," *Baca: Jurnal Dokumentasi Dan Informasi*, 2020, 289–301.

²⁶ Raiska Salsabila, "Analisis Kesiapan Madrasah Dalam Transformasi Digital Arsip Di Madrasah Tsanawiyah (MTs) Raudlatul Muta'allim Jember," *Jagad Pustaka: Jurnal Ilmu Perpustakaan Dan Informasi* 2, no. 1 (2025): 10–21, <https://doi.org/10.71333/qz5gye60>.

| Category | Theoretical Synthesis | Review Findings |
|---------------------------|---|--|
| Human Resources (HR) | Proactive attitude toward innovation and the presence of intrinsic motivation through digital literacy. | Low digital literacy among administrative staff and a lack of ongoing training. |
| Management & Organization | Leadership support (Madrasah Principal) and demands for operational efficiency | Lack of facility support and the view that digitization is merely a technical issue. |

Competent archive management is very important for madrasah institutions because it covers various activities, including document organization and correspondence storage since the school's establishment, through student admission and graduation, to information documentation.²⁷

The management of electronic or digital archives also requires various equipment, both hardware and software. The hardware used includes computers/laptops, printers, scanners, and other external storage media, while the software required includes computer programs used to run and perform tasks as needed. Effective digital archive management will produce valuable information tailored to the needs of institutions or agencies, including madrasah institutions.

Ensuring the readiness of hardware and software is very important to achieve successful digital archive management and produce the necessary information. Given the different nature of digital archives compared to printed archives, maintenance is very important in their management. This involves securing archives by establishing standard operating procedures. Furthermore, it is important to maintain the hardware and software that serve as media for creating digital archives. Routine maintenance is necessary to prevent file damage and ensure effective and sustainable management of information in the form of digital archives.²⁸

Adaptive Information Technology Training Strategy for Administrative Staff

Efforts to transform systems from manual to digital require adequate human resources. The head of the madrasah, as the leader, has full responsibility and obligation to guide, nurture, and train madrasah staff to be able to operate information technology correctly and appropriately. Given the digital literacy gap between senior and junior staff, an adaptive training strategy is needed. According to Agustina (2024), there are several effective strategies that can be applied to train administrative staff in madrasahs, including:

²⁷ Sri Yeyenri Putrianti Hau, Ikhfan Haris, and Mohammad Polinggapo, "Kesiapan Sekolah Dalam Penerapan Kearsipan Berbasis Digital," *Jambura Journal of Educational Management* 1 (2020): 41-48, <https://doi.org/10.37411/jjem.viii.iii>.

²⁸ Wayan Murjana Putra and Ni Putu Eka Marlina, "Peran Arsip Dalam Mendukung Proses Pembelajaran," *Prossiding*, no. 3 (2021): 141-52, https://journal.lppmunindra.ac.id/index.php/Faktor_Exacta/article/view/53.

- a. An introduction to the basic use of information technology, such as training in the practical basics of connecting devices to the internet, using a keyboard, and introducing administrative applications to facilitate the filing and documenting system.
- b. Participation in external and independent training, where the head of the madrasah institution can instruct administrative staff to actively participate in seminars, workshops, or competency development training. Through consistent training and supervision strategies, it is hoped that madrasah staff will be able to utilize information technology tools with discipline for official purposes, so that educational administrative services can run orderly and smoothly.

CONCLUSION

Based on the above description, it can be concluded that information technology plays a strategic role in providing quality information related to various needs such as education, business, and government. In the field of education, this technology provides the public with unlimited access to learning resources via the internet, transforming traditional methods into more interactive and efficient online learning. In addition, information technology supports learning innovation, enabling teachers and students to collaborate virtually without the constraints of space and time.

Information technology is also used to improve the efficiency of archival administration. Document digitization makes data management cleaner, more accessible, and space-saving. Electronic archives help madrasah institutions systematically store academic information, student documents, and other administrative records. With good management, digital archives can facilitate the search for important information and support data-based decision making.

In addition, information technology supports the development of digital libraries and online education management systems, thereby contributing to the advancement of education as a whole. Therefore, the use of information technology not only improves the quality of learning but also strengthens the education management system.

Although this study has provided a comprehensive overview of the importance of information technology in madrasah records management through a literature review, there are limitations regarding empirical data from the field. Therefore, it is recommended that further research be conducted using field research methods or case studies in various regions to validate the effectiveness of adaptive training strategies for administrative staff in practice. Additionally, more in-depth research is needed on sustainable technology infrastructure financing models for private madrasahs with limited resources.

REFERENCES

Amirudin, Iqbal Amar Muzaki, and Ceceng Saepulmilah. Pengaruh Kompetensi Profesional Dan Literasi Teknologi Informasi Komunikasi Guru PAI Terhadap Inovasi Pembelajaran (Penelitian Di Sekolah Tingkat Dasar Wilayah Desa

- Waluya Kutawaluya Karawang). Hibah Penelitian Universitas Singaperbangsa Karawang., 2023.
- Darmansah, Tengku, Melati Br Lubis, Uswatun Hasanah, Desi Fitriyani Sembiring, Putri Suci Ramadhani, and Dessy Masliani Br Lubis. "Transformasi Digital Dalam Manajemen Persuratan Terhadap Perubahan Proses Dan Peran Teknologi." *Jurnal Penelitian Ilmu-Ilmu Sosial* 1, no. 11 (2024): 296–300. <https://doi.org/10.5281/zenodo.11634738>.
- Fathurrahman, Muslih. "Pentingnya Arsip Sebagai Sumber Informasi." *Jurnal Ilmu Perpustakaan Dan Informasi* 3, no. 2 (2018): 215–25.
- Febrianto, Andre, Rusdy A Siroj, and Hartatina. "Studi Literatur: Landasan Dalam Memilih Metode Penelitian Yang Tepat." *Journal Educational Research and Development | E-ISSN: 3063-9158* 1, no. 2 (2024): 259–63. <https://doi.org/10.62379/jerd.vii2.142>.
- Husani, M. "Pemanfaatan Teknologi Informasi Dalam Bidang Industri Otomotif." *Jurnal Sistem Informasi Universitas Suryadarma* 6, no. 1 (2014). <https://doi.org/10.35968/jsi.v6i1.282>.
- Indika, N, and S Adia. "Pengaruh Komitmen Organisasi Dan Organizational Citizenship Behavior (OCB) Terhadap Kinerja Karyawan (Studi Kasus Pada Karyawan PT Ladava Multi Logistics Jakarta)." *Jurnal Administrasi Bisnis*, 2021, 1(2), 64–73.
- Karim, Abdul, Budianto Bangun, Kusmanto, and Iwan Purnama. *Pengantar Teknologi Informasi*, 2020. <http://motic.uad.ac.id/>.
- Kempa, Rudolf, Desembra Sohilait, and Asep Asep. "Peningkatan Kapasitas Guru Berbasis Manajemen Kurikulum Di Kabupaten Kepulauan Aru." *German Für Gesellschaft (J-Gefüge)* 2, no. 1 (2023): 9–14. <https://doi.org/10.30598/jgefuege.2.1.9-14>.
- Lesasunanda, Rizka Aifa, and Abdul Malik. "Peningkatan Kualitas Guru Melalui Literasi Digital Di MAN 1 Sumbawa Barat." *Jurnal Ilmiah Profesi Pendidikan* 9, no. 3 (2024): 1904–15. <https://doi.org/10.29303/jipp.v9i3.2365>.
- Mahmud, Melizubaidah. "Pentingnya Manajemen Sistem Penyimpanan ARSIP," 2016, 1–23.
- Marliani, Lina. "Definisi Administrasi Dalam Berbagai Sudut Pandang." *Jurnal Fakultas Ilmu Sosial Dan Ilmu Politik Universitas Galuh* 5, no. 4 (2018): 18–19. <https://jurnal.unigal.ac.id/index.php/dinamika/article/view/1743/1407>.
- Mulyapradana, Aria, Ary Dwi Anjarini, and Nanang Hermanto. "Pengelolaan Arsip Dinamis Inaktif Di Lembaga Pendidikan Sekolah Menengah Kejuruan." *Widya Cipta: Jurnal Sekretari Dan Manajemen* 5, no. 1 (2021): 60–68. <https://doi.org/10.31294/widyacipta.v5i1.10037>.
- Mustari, M. "Teknologi Informasi Dan Komunikasi Dalam Manajemen Pendidikan." Gunung Djati Publishing Bandung., 2023.
- Nurjanah, Eka Ernasari, Melysa Yuliana, Trisa Rahma Putri, and Utari Malau. "Pemanfaatan Teknologi Informasi Dan Komunikasi Dalam Layanan Administrasi Sekolah Di SMA N 5 Merangin." *INNOVATIVE: Journal Of Social Science Research* 3, no. 4 (2023): 2490–98.
- Prajana, Andika, and Yuni Astuti. "Pemanfaatan Teknologi Informasi Dan

- Komunikasi Dalam Pembelajaran Oleh Guru SMK Di Banda Aceh Dalam Upaya Implementasi Kurikulum 2013.” *JINOTEP (Jurnal Inovasi Dan Teknologi Pembelajaran): Kajian Dan Riset Dalam Teknologi Pembelajaran* 7, no. 1 (2020): 33–41. <https://doi.org/10.17977/um031v7i12020p033>.
- Putra, Wayan Murjana, and Ni Putu Eka Marlina. “Peran Arsip Dalam Mendukung Proses Pembelajaran.” *Prossiding*, no. 3 (2021): 141–52. https://journal.lppmunindra.ac.id/index.php/Faktor_Exacta/article/view/53.
- Rachman, Rio Febriannur. “Pemanfaatan Teknologi Informasi Dan Komunikasi Dalam Administrasi Pengarsipan Di Surabaya.” *Idarotuna: Journal of Administrative Science* 4, no. 1 (2023): 81–96. <https://doi.org/10.54471/idarotuna.v4i1.48>.
- Rianto, Bayu, and Welly Dozan. *Pengantar Teknologi Informasi*. Malang: CV. Multimedia Edukasi, 2016.
- Safira, F., T. A. Salim, R. Rahmi, and M. K. J. Sani. “Peran Arsip Dalam Pelestarian Cagar Budaya Di Indonesia: Sistematika Review.” *Baca: Jurnal Dokumentasi Dan Informasi*, 2020, 289–301.
- Salsabila, Raiska. “Analisis Kesiapan Madrasah Dalam Transformasi Digital Arsip Di Madrasah Tsanawiyah (MTs) Raudlatul Muta’allim Jember.” *Jagad Pustaka: Jurnal Ilmu Perpustakaan Dan Informasi* 2, no. 1 (2025): 10–21. <https://doi.org/10.71333/qz5gye60>.
- Susanti, Melinda Resti, and Durinda Puspasari. “Analisis Sistem Penyimpanan Dan Prosedur Temu Kembali Arsip Dinamis Di PT Artojoyo Langgeng Jaya Abadi (JH Tech Sidoarjo).” *Jurnal Pendidikan Administrasi Perkantoran (JPAP)* 8, no. 2 (2020): 241–51.
- Syasmita. “Prosiding Seminar Nasional Tahunan Fakultas Ilmu Sosial Universitas Negeri Medan Tahun.” *Kompetensi Dan Peran Guru Dalam Pembelajaran* 2, no. January 2017 (2017): 293–97. <http://semnasfis.unimed.ac.id>.
- Wahidin, Wahidin, Fatimah Az Zahro, Chairil Fajar Hadiansyah, and Achmad Taufik Ismail. “Digital-Based Education in the Era of Society 5.0: Synergy of Digital Literacy and Learning Motivation to Improve Student Learning Outcomes ARTICLE HISTORY.” *Jurnal Manajemen Pendidikan Islam* 10, no. 1 (2025): 135–52. <https://doi.org/10.14421/manageria.2025.101-08>.
- Yeyenri Putrianti Hau, Sri, Ikhfan Haris, and Mohammad Polinggapo. “Kesiapan Sekolah Dalam Penerapan Kearsipan Berbasis Digital.” *Jambura Journal of Educational Management* 1 (2020): 41–48. <https://doi.org/10.37411/jjem.viii.iii>.
- Yudhi, Achmad, and Nadra Amalia. “Desain Media Pembelajaran Berbasis Daring Memanfaatkan PortalSchoology Pembelajaran Apresiasi Sastra.” *Basastra: Jurnal Kajian Bahasa Dan Sastra Indonesia*, no. 7(1) (2018): 14–22.