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## The Indonesian Education Units Use of Digital Archives for Records Management

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### ABSTRACT

#### Background

The use of digital archives offers a great opportunity for educational institutions to improve efficiency, transparency and security of important data.

#### Purpose

This research aims to examine the role and benefits of digital archives implementation in Indonesian educational institutions, as well as the challenges faced in the digitisation process.

#### Design/method/approach

This research is a literature review, which discusses the importance of digital archives through various reference sources, namely Scencedirect, Emerlad Insight and google scholar.

#### Results

This research provides results on how archive digitisation can improve the management of academic and administrative data, accelerate access to information, and support better decision-making in educational environments. However, challenges such as lack of training, uneven technology infrastructure, and data security issues remain key barriers to the implementation of digital archives. The Indonesian government has initiated various programmes to accelerate this transition, including an integrated digital archive platform and training for educators and administrative staff.

#### Contribution/value

This research provides insights into the importance of digital archives in improving the efficiency of education administration and overcoming the challenges of the digital era.

### Article History

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## INTRODUCTION

As the global landscape increasingly transitions towards digital solutions, the Indonesian education system stands at a pivotal juncture in its approach to records management (Karnati et al., 2020; Sukmayadi & Yahya, 2020). The proliferation of digital archives presents an unprecedented opportunity for educational units to enhance efficiency, promote transparency, and safeguard valuable information. This introduction establishes the foundational significance of adopting digital archival systems, which not only streamline administrative processes but also foster an environment of continuous learning and improvement (Nasution et al., 2024). Moreover, in a country characterized by its vast geographical expanse and cultural diversity, the need for cohesive and accessible record-keeping has never been more vital.

Recent research shows that while most educational institutions in Indonesia have started using digital technology to manage records, many face major challenges and opportunities to create an efficient, integrated and accessible records management system, especially in the field of education (Darmansah et al., 2024). According to a study conducted by (Norhamidah et al., 2024), almost 60 per cent of schools in rural areas do not have an adequate digital archive system. Many educational institutions in urban areas have implemented digital records management systems, which allow faster and more effective access to administrative, financial and academic data (Ramadhanty et al., 2024). On the other hand, this potentially hampers transparency and accessibility of information, which are essential components of good education governance.

Study conducted by (Fatahillah, 2019) found that the implementation of digital archive systems in several large Indonesian universities has increased the efficiency of student and academic data management by up to 30%. This is because the system reduces reliance on physical archives, which often require large storage space and are vulnerable to damage from natural disasters or unfavourable environmental conditions. An additional study conducted by the Indonesian Association of Records Managers in 2022 found that, despite an increase in the use of technology in some sectors, the issue of digital divide remains a major challenge (Ridho, 2024). In addition to facing limited access to devices and a stable internet network (Rugaiyah et al., 2019), many educational institutions in remote areas do not receive sufficient training on digital records management.

The Indonesian government has initiated various programmes to accelerate the transition to digitalisation, including the provision of an integrated digital archive platform and training for teachers and administrative staff across the country. The aim of these programmes is not only to improve the efficiency of education administration, but also to build a data-driven culture that will support continuous improvement in the education system. By leveraging technology, Indonesian educational institutions can not only preserve historical data but also facilitate better decision-making and policy development. As this essay explores the multifaceted utilization of digital archives, it aims to illuminate their transformative role in managing records within education, ultimately enriching the learning experience across the nation.

## LITERATURE REVIEW

### Overview of the importance of records management in education

Effective records management in educational institutions plays a crucial role in ensuring operational efficiency, compliance, and preservation of institutional knowledge (Suharyat et al., 2020). In the context of Indonesian education units, the shift toward digital archives not only streamlines the management of academic records but also enhances accessibility for both educators and students. Properly organized digital records serve as an invaluable resource for tracking student progress, planning curriculum, and facilitating communication among staff. According to the findings from a study on the management of electronic archives at Bengkulu

University, while the management of static files has transitioned to digital formats, challenges remain due to insufficient technological infrastructure and training (Fosriyani et al., 2024). Moreover, as libraries and archives hold the cultural heritage and intellectual resources of society, their effective management is vital for the continuation of academic legacy within educational frameworks (Thelma et al., 2024). Thus, robust records management systems are essential in fostering a more efficient and accountable educational environment.

## **METHOD**

The researcher used a literature review to analyse and summarise various relevant sources of information on the use of digital archives in records management in Indonesian educational institutions. The sources collected by the researcher include books, articles, research reports, and other sources that discuss related topics, such as advances in architectural technology. This review research will provide a better understanding of the issues, trends and best practices in digital records management in the education sector. It will also provide an overview of how the use of digital archives helps records administration and management in educational institutions. By combining results from previous research, this research will provide insight into the opportunities and barriers that educational institutions face today.

## **RESULTS**

### **The Role of Digital Archives in Indonesian Education**

Digital archives have emerged as pivotal resources in Indonesian education, fundamentally transforming the management of educational records and facilitating access to a wealth of information. These repositories house invaluable collections that preserve the cultural and intellectual heritage of the nation, allowing both educators and students to engage with historical documents and contemporary research amid a digital landscape. For instance, the Archives Management System (SIMPAN), developed by the Bekasi Madya Tax Office, exemplifies a technology-driven approach that enhances administrative efficiency and supports effective monitoring of educational records (Rulandari et al., 2022). As libraries and educational institutions strive to safeguard their archival treasures, the importance of adopting best practices in knowledge preservation becomes increasingly evident. Through digital archives, Indonesian education units can cultivate a more informed generation, ensuring that important resources are readily available for current and future scholars, thereby solidifying their role in fostering academic growth and cultural awareness.

### **Benefits of implementing digital archives for educational institutions**

The implementation of digital archives in educational institutions presents numerous advantages, significantly enhancing the efficiency and effectiveness of record management. One primary benefit is the improved accessibility of academic resources (Mukred et al., 2021), which facilitates an enriched learning environment for students and educators alike (Umam, 2019). By converting printed materials into digital formats, institutions not only expand access to a broader range of resources but also foster a culture of reading and research, as emphasized by the legal framework regarding electronic books outlined in Law No. 43 of 2007 and Law No. 3 of 2017 (Srimulyo et al., 2018). Furthermore, digital archives streamline administrative processes, as demonstrated by research on the automation of educational operations in Peru, which revealed substantial time savings for students, parents, and staff (Acha Jiménez et al.). Consequently, the transition to digital archiving represents a pivotal advancement that promotes both educational quality and operational efficiency in Indonesian educational units.

### **Challenges Faced in the Adoption of Digital Archives**

The adoption of digital archives within Indonesian education units faces numerous challenges that undermine effective records management. A significant barrier lies in the existing infrastructure, as many institutions still operate on outdated technological systems, which hampers the migration to digital formats. Furthermore, limited access to reliable internet connectivity in rural areas exacerbates the issue, creating disparities in digital archive usage across the nation. Additionally, a shortage of trained personnel proficient in digital records management contributes to ineffective implementation. As highlighted in (Nadkarni & Prügl, 2021), the diffusion of strategic practices often falters due to institutional limitations, suggesting that without adequate training and infrastructure, educational units will struggle to embrace digital transformation fully. Moreover, concerns regarding data security and the preservation of digital records add layers of complexity to the adoption process, ultimately hindering the overall efficiency of record-keeping practices in Indonesian education systems (Zahara & Salim, 2022).

### **Technological and infrastructural barriers to effective records management**

The implementation of digital archives within Indonesian education units faces several technological and infrastructural barriers that hinder effective records management. Limited access to high-speed internet and reliable electricity in rural areas exacerbates this issue, leaving many schools unable to fully utilize digital systems and resulting in fragmented record-keeping practices. Moreover, the lack of adequate training for educators and administrative staff on digital tools further compounds the problem, preventing the seamless integration of records management systems. As cited in previous research, a robust governance framework that encompasses both technological capacity and the necessary infrastructural support is essential for success (Kaiser, 2024). Additionally, there is a pressing need to establish sustainable maintenance protocols for digital archives to ensure their longevity and usability in the ever-evolving digital landscape ('Transcript Verlag'). Consequently, addressing these challenges is critical for enhancing the efficiency and effectiveness of records management in Indonesia's educational context.

The introduction of digital archives has significantly transformed records management within Indonesian education units, fostering increased efficiency and accessibility. By transitioning from traditional paper-based systems to digital formats, educational institutions have streamlined the storage, retrieval, and preservation of critical documents. This modernization not only reduces physical space requirements but also enhances data integrity, allowing for quick access to student records, administrative documents, and historical data. Furthermore, digital archives enable better collaboration among staff members, facilitating the sharing of information across departments and improving decision-making processes. The ability to implement standardized procedures also minimizes human error, which is often prevalent in manual record-keeping systems. Overall, the integration of digital archives into records management practices equips Indonesian educational institutions with the tools necessary for improved operational efficiency and responsiveness, ultimately enhancing the overall educational experience for both administrators and students.

### **CONCLUSION**

In conclusion, the implementation of digital archives within Indonesian education units has demonstrated significant potential for enhancing records management efficiency. Although progress has been made in adopting electronic systems, challenges such as inadequate application infrastructure, insufficient funding, and limited human resources continue to hinder

optimal performance. The analysis reveals that while static file maintenance has advanced, the acquisition and overall management of electronic records require further development to ensure that these systems can effectively support educational administration. Moreover, the research highlights that the reliance on traditional paper-based processes for file acquisition impedes the transition to more modern practices. Thus, addressing these challenges through targeted investments in technology and training will be essential for maximizing the benefits of digital archives, ultimately leading to improved record-keeping practices that support the educational sector's goals.

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