# Educational Management

# Digital-Based Archive Management in higher Educational Environment, Universitas Negeri Semarang

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| Article Info | Abstract |
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| | Along with the dynamics of organizational activity, archive management activities in the office are becoming increasingly dynamic. Many office practitioners have difficulty managing archives because they lack a good understanding of archive management both conventionally and electronically. This research focuses on the management of digital archives at the Faculty of Law, UNNES by analyzing the obstacles to digital archive management. The method used in the study is qualitative to descriptive research. The result of the research is that the archiving system carried out by the Archives Processor of the Faculty of Law has not been optimally carried out because they do not understand digital archives, with the creation of archive manuals/guidelines digital is expected to be an archive processor at the Faculty of Law to easily carry out digital archive management, thus the digital document storage system has a good influence on the performance of archive managers and for archive processors on stored documents. The application of this research is the ease of managing archives by moving, and finding documents implemented effectively and efficiently for not too long. |

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## INTRODUCTION

Archives are the center of memory of any organization. If the archives owned by the organization are not well managed, the consequences will affect the level of reputation of an organization, so the organization concerned will experience obstacles in achieving goals. The implementation of good archival management is necessary for Educational Institutions because archival activities include various processes of preparing documents as well as storing correspondence from the establishment, admission of students, graduation, and even the recording of personal data of educators and education staff. Yeyenri Putrianti Hau et al. (2020:143).

An organization or office that does not have an efficient archival system will find it difficult to find the information that has been stored, and may eventually hinder the next stage of the process. According to Sedarmayanti (2015) things that can influence the decision-making process are collecting information; recording and classifying information; interpreting information; processing information; storing and retrieving information from its storage place; distributing information and the accuracy of information use. This is felt to be important because to achieve organizational goals, complete information is needed, to overcome obstacles so that smooth implementation of tasks can be achieved. In the context of implementing these activities, the archive has a very important meaning, namely to compile a program plan for the implementation of the next activity. With archives, you can find out the various information that is already owned, you can determine the goals to be achieved by using the existing potential to the maximum. Therefore, archives are a source of memory for an organization, that is, archives contain a variety of important information materials and when needed must be quickly and precisely presented at any time to help facilitate decision-making.

Along with the dynamics of organizational activities, archive management activities in the office are becoming increasingly dynamic, many office practitioners have difficulties in managing archives because they lack a good understanding of archive management both conventionally and electronically. Along with the development and use of technology in office activities, electronic archive management activities are increasingly managed in office activities which are now known as modern archives and have become a must in every agency utilizing technology as a support in office activities, especially in public services, especially in terms of archives.

The basic concept of archival with the use of technology has the same concept as conventional archival techniques, if conventional archives have a cabinet that physically functions to store important documents owned by a company or office, then this modern archival system has a virtual cabinet which contains a virtual folder containing sheets of archives that have been converted into the form of images (*.bmp, jpg, etc) or documents (*.doc, txt, etc)

Semarang State University is the holder of higher education institutions that play a strategic role in carrying out the mandate to carry out the Tri Dharma of Higher Education, namely education, research, and community service. In carrying out the Tri Darma of Higher Education, it will produce data and archival documents as *recorded information*. In Law Number 43 of 2009 concerning Archives, especially Article 1, it is stated that archives are records of activities or events in various forms and media following the development of information and communication technology made and received by state institutions, local governments, educational institutions, companies, political organizations, community organizations, and individuals in the implementation of social, national, and state life.

Along with technological advances, the archival world, which has been in the form of paper alone, has now utilized technology as a tool for processing, accessing, and disseminating, as well as preserving archives. The management and preservation of archives can be done conventionally and electronically, in 2021 the UPT Archives, Semarang State University (UNNES) has launched a Digital Archives System. This Digital Archive System aims to

provide integrated archival services digitally, archival information can be obtained easily anywhere and anytime, and increase the credibility of the UNNES Archives Unit in the community in developing and improving the quality of Digital Archives.

At the Faculty of Law, Semarang State University itself, the implementation of the digital archive system has not been managed optimally its implementation not being so perfect because there are still limitations. In this study, researchers focused on digital-based archive management at the Faculty of Law, Semarang State University which is managed by archivist functional personnel by involving other parts involved with archival activities. The focus of this research is to formulate how digital-based archive management, the obstacles faced and the efforts made to overcome obstacles in digital-based archive management.

The purpose of transferring archive media to accelerate archive access services is carried out related to the purpose of effective and efficient archive management. (Sambas and Hendri, 2016: 411). The following are the stages that can be done in digital archive storage activities, especially those related to the transfer of archival media from paper media to electronic media (computers) which can be contained in figure 3: prepare a letter / official manuscript to be converted media, do *a scan* of the manuscript/letter, m Create folders on the computer, as a place to store scanned letters or official manuscripts, create *hyperlinks*, namely connecting the archive list and the scanned archive.

Make completeness of media transfer administration, which consists of (a) Decree of the Media Transfer Team, (b) Minutes of media transfer approval, (c) Minutes of legalization of media transfer, (d) List of archives of proposals, transfer of media, and (e) List of Archives of Media transfer.

The word archive includes 3 meanings, namely: 1. A collection of manuscripts or documents that are stored. 2. Building (room) storage of a collection of manuscripts or documents. 3. The organization or institution that manages and stores manuscripts or documents. Meanwhile, Choiriyah (2007: 5) states that: In Indonesian terms, archives are sometimes referred to as scribbles. A bond is any written record, either in the form of a picture or a chart that contains information about a subject (subject matter) or an event made by a person to help that person's memory as well. Based on the above understanding, what is included in the definition of archives is for example letters, receipts, invoices, bookkeeping, payroll, and organizational charts (Sedarmayanti, 2015).

A digital archive is an archive that can be stored and transmitted in intermittent form, or in the form of binary codes that can be opened, created, or deleted with computing tools that can read or process data in binary form so that archives can be used or utilized. (Sambas Ali Muhidin Hendri &Winata Budi Santoso.2016)

The understanding of the meaning of archives in its outline can be seen on 2 (two) sides, namely, archives are seen as "manuscripts" and archives are seen as "systems" (Moefti Wiriadihardja, 1987). Viewing archives as manuscripts seen from the medium of recording implies that archives limit the understanding of archives itself has progressed. Viewing archives as a system contains the meaning of a dynamic motion, meaning a system that continues to develop and change following the development of technological advances.

Archives are the center of memory of any organization. If the archives owned by the organization are not well managed, the consequences will affect the level of reputation of an organization, so the organization concerned will experience obstacles in achieving goals. For activities that have taken place and a place to find various information needed for future actions or decisions in an agency, the archive must be organized and maintained as well as possible (Syamsul, 1997).

An organization or office that does not have an efficient archival system will find it difficult to find the information that has been stored, and may eventually hinder the next stage of the process. According to (Sedarmayanti 2003) things that can influence in the decision-making

process are collecting information; recording and 3 classifying information; interpreting information; processing information; storing and retrieving information from its storage place; distributing information and the accuracy of information use. This is felt to be important because to achieve organizational goals, complete information is needed, to overcome obstacles so that smooth implementation of tasks can be achieved. In the context of implementing these activities, the archive has a very important meaning, namely to compile a program plan for the implementation of the next activity. With archives, you can find out the various information that is already owned, you can determine the goals to be achieved by using the existing potential to the maximum. Therefore, archives are a source of memory for an organization, that is, archives contain a variety of important information materials and when needed must be quickly and precisely presented at any time to help facilitate decision-making.

This research has several objectives for archive managers, namely as follows: Making a manual for managing Digital-Based Archives at the Faculty of Law of UNNES, Making it easier for educational personnel to manage Digital-Based Archives at the Faculty of Law, Semarang State University, Analyzing the obstacles and constraints of education personnel in managing Digital-Based Archives.

**METHODS**

The type of research in this study, researchers use qualitative methods, as revealed by Sugiyono (2012) are as follows: Qualitative research methods can be interpreted as research methods based on the philosophy of positivism, used to cover certain populations or samples, data collection using research instruments, Importing, this method also moves data electronically. data analysis is quantitative/statistical, to test the hypothesis that has been set.

The data in this study consists of primary data and secondary data. Primary data are obtained through answers from interviews with informants, while these secondary data are obtained from documentation, books, scientific journals, newspapers and other records related to research. The instruments used are interview documents, recorded audio, and photos/videos. The collection technique in this study uses several techniques, namely: literature study, which is a technique of collecting data by studying books and other library materials that have something to do with the problem being studied.

The methodology scheme for implementing this research is made in a comprehensive, comprehensive, integral and interrelated manner, which shows the flow of study implementation from the initial stage to the final stage to produce output products. More clearly, the methodology scheme for conducting research can be seen in the following figure.
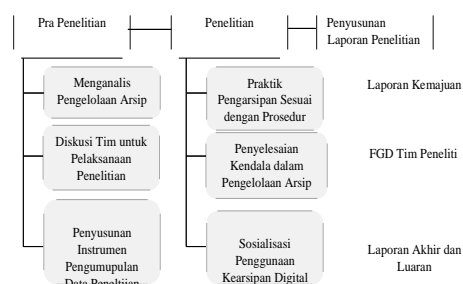


**Figure 1.** The strategy of The Stages of Research Implementation

**RESULTS AND DISCUSSION**

**Discussion**

The basic concept of archival with the use of technology has the same concept as conventional archival techniques, if conventional archives have a cabinet that physically functions to store important documents owned by a company or office, then this modern archival system has a virtual cabinet which contains a virtual folder containing sheets of archives that have been converted into the form of images (*.bmp, jpg, etc) or documents (*.doc, txt, etc).

Electronic archives are a new type of archive with a combination of information technology as a medium for management. Electronic archives have the same value as printed archives and are recognized as valid legal

evidence following Law Number 11 of 2008 concerning Electronic Information and Transactions. The management of electronic archives is considered more effective than printed archives in terms of practicality in their creation and storage. The management of electronic archives can be carried out in four cycles namely: creation and storage, distribution and use, maintenance, and disposition. (Machsun Rifauddin, 2016)

**Types of Archives**

Types of Archives According to Mulyono, Sularso, et al (2012: 7), based on the frequency of use of archives as information materials, the following types of archives are distinguished: a. Active archives (dynamically active) are archives that are directly still used in the process of work activities. These active archives are stored in the processing unit because when needed information must be removed from the storage area. b. Inactive archives (dynamic inactive) are archives whose use is indirect as information material. These inactive archives are stored in archival units and removed from very rare storage areas, never even coming out of storage for a long period. c. Dynamic archives are archives that are used directly in the activities of the archive creator and stored for a certain period. d. Static archives are archives produced by the creator of the archive because they have historical use value, have exhausted their references, and have information that is secured and has been verified either directly or indirectly by ANRI / and or archival institutions (Law No. 43 of 2009 article 1 paragraph 7).

According to Sugiarto (2005), based on their function, archives can be divided into two groups, namely: a. Dynamic Archives are archives that are used directly in the planning, implementing, and organizing of national life in general or used directly in the implementation of state administration. Dynamic archives also mean recorded information, including data in computer systems, that is created or received by the organization in carrying out its activities. b. Static Archives are archives that are not used directly for planning or organizing national life in

general or for the daily administration of the state. So dynamic archives are all archives that are still in various offices, whether government offices, private or community organizations because they are still used directly in the planning, implementation, and other administrative activities.

**Records Management**

Management can also be interpreted as management, which is a work activity that involves coordination and supervision of the work of others so that the work can be completed efficiently and effectively (Robbins and Mary, 2010). Meanwhile, Daft (2006) states management is the achievement of organizational goals effectively and efficiently through planning, organizing, directing, and controlling organizational resources. From the above opinions, it can be concluded that management is also referred to as management, which is the process of formulating policies starting from planning, organizing, controlling, and supervising all matters involved in the implementation of the organization to achieve a goal.

Records management is the process by which an organization manages all aspects of archives both created and received in various formats and types of media, ranging from creation, use, storage, and depreciation.

Archival management is carried out by staff who have functional positions as archivists. A functional Position is a position that shows the duties, responsibilities, authorities, and rights of a Civil Servant in an organization whose duties are based on certain skills and or skills and are independent; Archivist is a position that has the scope, duties, responsibilities, and authority to carry out archive management activities and archival guidanceoccupied by Civil Servants with rights and obligations are given in full by authorized officials.

**Electronic/Digital Records Management**

In this modern era, of course, all aspects of human activities must involve electronic devices to support activities to make them more practical

and easy, including archival activities carried out in offices, both government and private. This is often referred to as electronic archival or digital archival.

The following is a description of the basic components in choosing a system according to Sugiarto and Wahyono (2015: 97) as follows: 1. Moving documents, here are the main methods of moving data into a document computerized system: -Scanning, scanning or scanning documents that produce image data that can be stored in a computer. - Conversion, the process of converting a word processor document or spreadsheet into permanent image data for storage on a computerized system. - Importing, this method also moves data electronically. 2. Saving documents, after being moved into the system, the documents must be saved correctly. 3. Indexing documents, when paper documents are stored in the office, they must be managed to be useful for the organization by labeling, sorting, indexing, placing them in folders, and entered into filing cabinets. 4. Controlling access, is the most important aspect of the electronic filing system because almost everyone in the organization can read documents on every computer connected to a LAN throughout the office area.

Based on the results of interviews with staff of educational staff at the Faculty of Law, Semarang State University, the archive activity known so far is to record and then store it. They don't know how long the archive should be stored and don't know the difference between active, dynamic, and static archives. Because most of the archives produced are correspondence archives. So that the archiving activities carried out so far are only limited to creating and storing mail archives which eventually make the employee's workspace a place to hoard archives. Respond to problems that exist in the field. The university finally tried to make the digitization of archives a solution to overcome the problems that existed around archiving. In 2022 Semarang State University officially uses an information system to reduce existing problems. The information system is implemented and adopted from ANRI with some adjustments in it.

The discussion of research that has been carried out by researchers is related to archive management based on several interviews with educational personnel at the Faculty of Law, Semarang State University so that it is clearer that the discussion is as follows:

Moving or changing the type of document, this process is the first stage in the management of digital archives. Where the printed document is carried out the transfer of the format into digital form. In this stage, the staff of the education staff also carried out the archiving stage in the form of hard copies or soft copies by scanning documents.

The storage of archives at the Faculty of Law already uses the official mail system, so moving, and finding documents is carried out effectively and efficiently not too long. Because after the letter comes in, the education staff who operationalizes si-Radi immediately archives the letter/document through a computer with the document scanned and inputted.

Sugiarto and Wahyono (2015) revealed the advantages of electronic archives, namely: fast processing, the level of accuracy of the information produced is quite high, and the ease of interacting with users.

Recording incoming and outgoing letters with document models *scanned* and inputted through the si-Radi system is very helpful in facilitating the management of archives at the Faculty of Law, Semarang State University.

## Results

From the results of research on recording incoming and outgoing letters at the Faculty of Law, Semarang State University, they have used the official letter application (Si-Radi) utilizing documents in *scanners* and then inputting or stored into a computer as a place to store letters/documents, therefore the documents in question become digital/electronic archives. The recording of incoming and outgoing letters at the Faculty of Law, Semarang State University is included in digital /electronic media, revealed by Sugiarto and Wahyono (2015). Electronic archives are information that is recorded and stored in electronic media (computers) or digitization. Thus digital archives belong to the

group of electronic archives. An electronic archive is an archive that is created, used, and maintained as proof of transactions, activities, and functions of an institution or individual transferred and processed with a computer system (Sambas and Hendri, 2016).

This digital archive system has been tested for 1 year in certain units within the Semarang State University and the Up Archives. The purpose of testing this system is to ensure whether or not a digital archive system is feasible. Untuk types of digital archive input there are two, namely static archive input and dynamic archives.
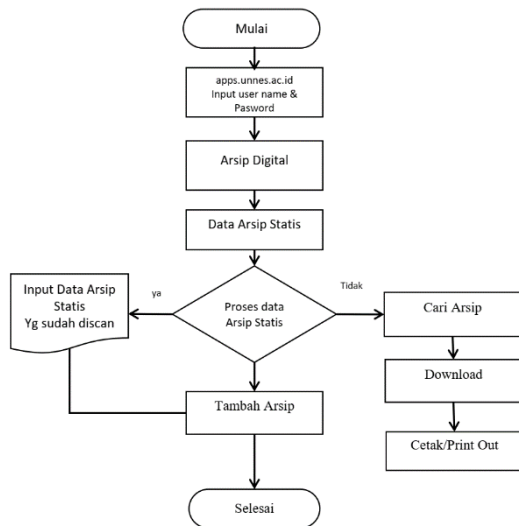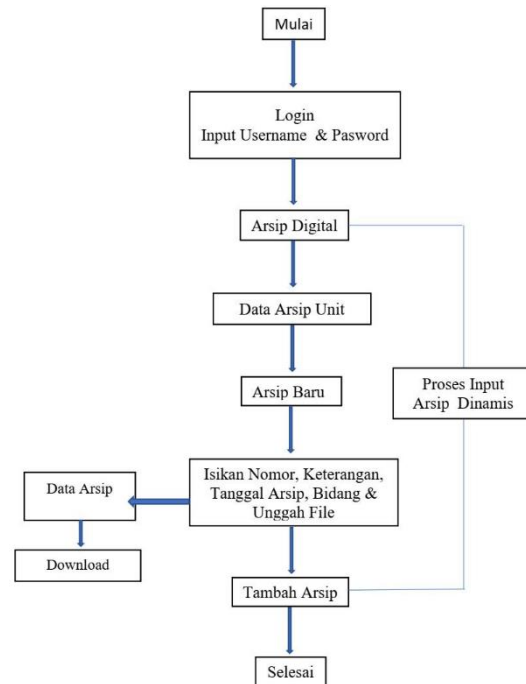


**Figure 2.** Static Archive Flowchart



**Figure 3.** Dynamic Archive Input Flowchart To Digital Archive

Research activities are carried out several times. The research began with the search for initial data through the media in the form of laws and regulations related to the digitization of archives, journals, and books related to dynamic archives and static archives carried out by the Research Team with the support of the Research Support Staff. In the first stage, the entire team identified problems with archives related to the research topic through the media and inventoried them. After being inventoried, then the data is processed and *screened* to select the relevant initial data.

Archive management activities in the office are increasingly dynamic, and many office practitioners have difficulties in managing archives, both conventionally and electronically. Therefore, in the second stage, the research team identified the need to manage archives to educational personnel through interviews, from the results of the interviews, it was very necessary to provide understanding to educational personnel of archives electronically, thus it is hoped that the performance of educational personnel who manage archives will be more

effective and efficient in terms of digital archive governance.

The digitalization of archives is the process of providing or using a digital system. Based on the meaning of the word digital/digitization of archives is in the context of the media. Where archive storage is carried out in a digital form. Thus, what is meant by digital archives is data (archives) that can be stored and transmitted in a dotted form, or in the form of binary codes that can be opened, created, or deleted with computing tools that can read or process data in binary form, so that archives can be used or utilized.

### Digital Archives Standing

The position of the digital archive can be viewed in two perspectives, namely (1) the perspective of archive storage media, and (2) the perspective of the process of archive management activities. *From the perspective of archive storage media*, the position of digital archives is included in the group of new media archives, namely archives whose information content and physical form are recorded in magnetic media using electronic devices or in the form of moving image media, static images and sound recordings created in the context of carrying out organizational and individual activities (Euis Syariasih, 2012). Thus digital archives belong to the group of electronic archives. An electronic archive is an archive that is created, used, and maintained as proof of transactions, activities, and functions of an institution or individual transferred and processed with a computer system (Sambas and Hendri, 2016).

*Meanwhile, in the process perspective of archive management* activities, digital archive management activities include manual and electronic archive management systems (*hybrid systems*) or automation of archive management. The management of the archives of this hybrid system, as partly carried out through manual / paper media and partly through electronic media

## CONCLUSION

With the existence of a service mail system (siradi) and digital archives, it is enough to provide many benefits and improve quality, including accelerating the creation, storage, and supervision and providing opportunities for them to learn more about mastering information technology devices. Because the archive management system has been digital-based. The challenges of digital archive systems in the future to process better, effective, and efficient archives need to be improved, by integrating two existing systems at UNNES to improve the quality of the performance results of archive managers to be more optimal.

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