

# Research on Optimization of Intelligent Archives Management Mode in universities Based on Cloud Platform

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**Abstract:** In recent years, with the development of universities, archives management has been paid more and more attention. The improvement of archives management in universities can promote the development of universities, especially in the process of making development decisions and formulating sustainable development strategies, by using relevant information in archives, the scientific and accurate decision-making can be ensured. Under the current new situation, the wide application of cloud technology has brought great changes to the archives work in universities. In this paper, the author fully considers the practice of discussing the file management mode in universities based on cloud platform, and after deeply discussing and analyzing the concept of cloud technology, systematically and comprehensively expounds the characteristics of cloud files, and then further mentions the model design of cloud file management in universities, hoping to achieve the expected results of optimizing the file management mode in universities based on cloud platform.

## 1. Introduction

With the rapid development of Internet and information, the traditional file management method has long been abandoned, and the information-based file management method came into being [1]. Only by constantly updating the means and modes of archives management in universities, actively adapting to the development of digital environment, establishing digital archives room, and implementing the goal of improving the quality of information archives management in actual archives management, can the quality of digital university management be continuously improved [2]. Archives management in universities is the requirement and regulation of laws and regulations. According to the relevant laws and regulations, universities need to properly manage and preserve all kinds of files such as students and teachers, and ensure the truthfulness, completeness and accuracy of the files. Compliance file management can protect the legitimate rights and interests of universities and avoid possible legal risks [3]. University archives record important information such as students' academic achievements, academic certificates and scientific research achievements. These files are not only important documents for students themselves, but also one of the important bases for evaluating the quality of higher education. Effective file management can ensure that students' learning process and achievements are accurately recorded and verified, and improve the credibility and fairness of higher education quality. The staff files of universities record teachers' qualifications, positions, rewards and punishments and other information [4]. These files are of great significance for personnel management and recruitment and selection in universities. Effective file management can provide detailed information of teaching staff, provide reliable basis for recruitment, performance evaluation and promotion, and ensure the fairness and rationality of personnel decision [5]. universities involve a large number of scientific research projects and innovations, and the intellectual property rights of these innovations need to be effectively protected [6]. Archives management can record and preserve the process, results and intellectual property rights of scientific research projects, ensure the traceability of scientific research results and the ownership of rights and interests, and provide strong support for intellectual property protection. As an institution with rich historical and cultural background, the archives of universities record the

development course, important events and celebrity deeds of the school [7]. Effective management and preservation of these files can help universities inherit and carry forward excellent campus culture and stimulate teachers and students' sense of belonging and identity.

The intelligent file management mode of universities based on cloud platform refers to a mode that the file management system of universities is built on the cloud computing platform, and the digital, centralized and intelligent management of files is realized by integrating intelligent technologies and applications [8]. Establish the cloud platform infrastructure of university archives management, adopt cloud computing technology, including cloud servers, storage devices, network devices, etc., and provide stable and reliable computing and storage resources to support the operation and expansion of university archives management system. The intelligent file management mode of universities based on cloud platform can realize the centralization and intelligence of file management and improve the efficiency, accuracy and security of file management [9]. Through the application of cloud computing and intelligent technology, universities can better meet the growing demand for file management, and provide more convenient and reliable support for teaching, scientific research and management.

## **2. Analysis of the problems existing in the current archives management in universities**

### **2.1. University archives management system lags behind**

In fact, the quality of archives management directly determines the development level of universities. Therefore, it is necessary to do a good job in archives management in universities and establish a scientific and effective management system in combination with the actual situation of archives management in universities in order to ensure the smooth progress of archives management in universities [10]. However, from the analysis of the current operation of the archives management system in universities, it is found that the archives management system is lagging behind, lacking effective incentive methods and systems, lacking the corresponding innovation consciousness of archives managers, and lacking the confidence to take a strange road, thus causing serious problems in the archives management in universities, which is not conducive to the improvement of the archives management level in universities, and is not conducive to the sustainable development of universities. Many universities still use the traditional paper file management method, and the files are stored in physical filing cabinets, which leads to the tedious and inefficient process of file retrieval and management, and is prone to the problems of file loss, damage or failure to update in time. In addition, some universities have problems such as scattered archives management departments and isolated information islands, and there is a lack of effective information sharing and collaborative work mechanism between different departments, which increases the difficulty of obtaining and sharing archives. At the same time, these universities lack advanced technical support in file management, such as cloud computing, big data analysis and artificial intelligence, which limits the efficiency and quality improvement of file management. In addition, the professional quality and technical ability of archives managers in universities may be lacking. Due to the lack of understanding of new technologies and new concepts, the management level is lagging behind. In order to solve these problems, it is necessary to popularize digital archives management, establish information sharing and coordination mechanism, introduce advanced technical support and strengthen personnel training, so as to improve the efficiency and quality of archives management in universities and adapt to the development needs of the digital age.

### **2.2. College archives management ideas obsolete**

With the rapid development of universities, the archives management in universities should be improved and perfected constantly, especially the advanced management concepts should be fully introduced in management ideas to continuously improve the quality of archives management in universities and promote the stable development of universities. However, from the analysis of the actual situation of archives management in universities, the idea of archives management is too old,

which affects the smooth implementation of archives management in universities. Some universities pay relatively low attention to file management, and think that file management is only a routine work, lacking systematic and strategic thinking. This leads to the lag in the development of archives management, which can not give full play to the value of archives in education, teaching, scientific research and management. Some universities do not make full use of modern information technology in file management, such as cloud computing, big data analysis, artificial intelligence and so on. This makes file management unable to fully enjoy the convenience and benefits brought by digitalization and intelligence, which leads to cumbersome and inefficient management process. At present, the means of archives management in universities are too old-fashioned and have not been improved and innovated for a long time, which affects the quality of archives management in universities and is not conducive to the stable development of universities. In addition, there are many shortcomings in the inspection and adjustment of archives, such as the untimely filling of the front row documents, the preparation of cover, sealing, numbering and filling in the catalogue, and the outdated form of archives storage management, which affects the efficiency of archives management in universities, and even causes the loss of archives information in universities, which is not conducive to the sustainable development of universities.

### **3. Optimization of intelligent archives management mode in universities based on cloud platform**

#### **3.1. Establish the concept of file management based on cloud platform**

Archival work in universities is a great undertaking to record the historical development and change of universities, inherit the purpose of running universities, and cultivate talents for the society. It is a basic and auxiliary work in the management of universities, and archivists should always remember their glorious mission. Establishing the concept of file management based on cloud platform means that universities focus on centralized management, storage and sharing of file management on cloud computing platform. Cloud platform provides universities with the ability to efficiently store and share archives. It has a large-scale storage space, easily manages a large number of electronic files, promotes the sharing of file information between different departments, realizes the rapid transmission and exchange of file data, and greatly improves the work efficiency. At the same time, the cloud platform has a safe and reliable data protection mechanism. Through perfect security measures and backup mechanism, the loss, damage or malicious tampering of archival information can be effectively prevented. Regular automatic backup and disaster recovery measures also ensure the safety and reliability of archival data. The cloud platform also provides powerful search and retrieval functions. With the help of advanced search and intelligent retrieval technology, the required file information can be retrieved quickly and accurately according to keywords, attributes and other conditions. This greatly improves the speed and accuracy of file search, and saves labor cost and time. Fig. 1 is an intelligent file management model of universities based on cloud platform.

In order to establish the concept of file management based on cloud platform, universities can take the following measures. Firstly, cloud computing technology is introduced to build a cloud file management system in universities. By digitally converting paper files and electronic files and storing them on the cloud platform, centralized management and sharing of files can be realized. Secondly, it is essential to strengthen safety management measures. Measures such as encryption and authority control are adopted to ensure the security of the cloud platform and prevent unauthorized personnel from accessing and tampering with file information. At the same time, regular backup and disaster recovery are essential to ensure the safety and reliability of archival data. Thirdly, providing training and support is the key to promote file management based on cloud platform. Provide training and guidance for file managers to familiarize them with the operation and maintenance of cloud file management system and master relevant technologies and knowledge. In this way, they can give full play to the advantages of cloud platform in file management and improve work efficiency and quality. Finally, actively promote and publicize the concept of file

management based on cloud platform. Promote the advantages and convenience of cloud file management system to college teachers and students, and encourage them to widely use the system and enjoy the convenience and benefits brought by digital file management. Through promotion and publicity, more people can be promoted to accept and support the concept of file management based on cloud platform, and the efficiency and quality of file management in universities can be further improved. In a word, it is very important to establish the concept of file management based on cloud platform for the promotion of file management in universities. By building a cloud file management system, strengthening security management measures, providing training and support, and promoting the use and publicity, information sharing and collaborative work can be realized, providing better support for the development and management of universities.

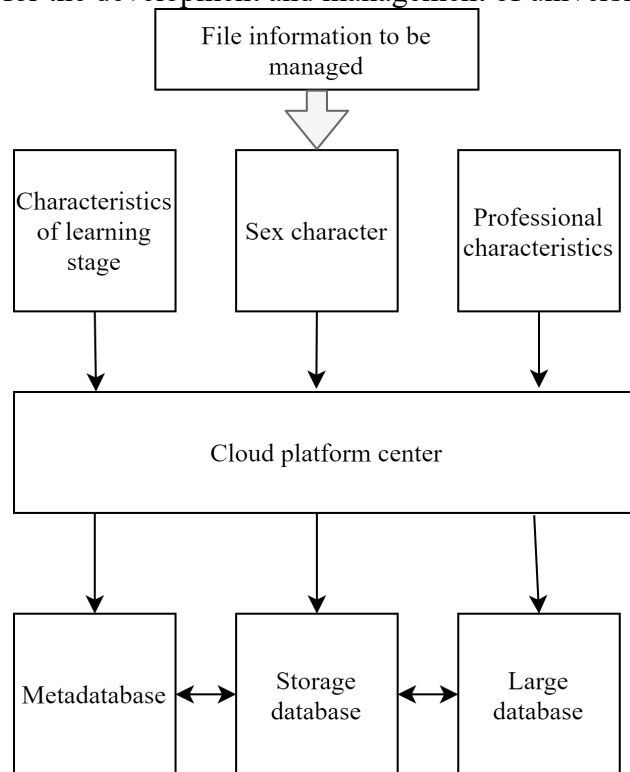


Figure 1 Intelligent Archives Management Mode in universities Based on Cloud Platform

### 3.2. The establishment of university archives security system based on cloud platform

In order to ensure the security and reliability of university archives, it is very important to establish a security system for university archives based on cloud platform. This system uses the cloud platform and combines a series of security management measures, aiming at providing the security guarantee of university archives management. In order to ensure the security and reliability of university archives, it is very important to establish a security system for university archives based on cloud platform. The system uses powerful data encryption algorithm to encrypt and store archive data to ensure the security of data during transmission and storage. At the same time, the authority control mechanism is set up in detail, and only authorized personnel can access and operate the corresponding file information. In addition, the system also implements security audit and monitoring measures to record and analyze the access, operation and modification of the file system, so as to trace and monitor potential security risks and threats. This is helpful for universities to find abnormal situations in time and take corresponding measures to protect the safety of archives. In order to ensure the integrity and recoverability of archive data, the system automatically backs up archive data regularly, and establishes a disaster recovery mechanism to back up archive data on cloud servers in different geographical locations to prevent data loss or damage caused by natural disasters or system failures. In order to improve the safety awareness of archivists and attach importance to confidentiality, the system provides relevant safety training and education, including training in compliance requirements, data protection measures, password management and so on.

This helps to ensure that they use the system correctly and effectively guard against security risks. At the same time, the system timely repairs and updates the discovered security vulnerabilities to ensure the stability and security of the system. Conduct regular safety inspection and evaluation to ensure that the system and related equipment meet the latest safety standards and compliance requirements. The university archives security system based on cloud platform is shown in Figure 2.

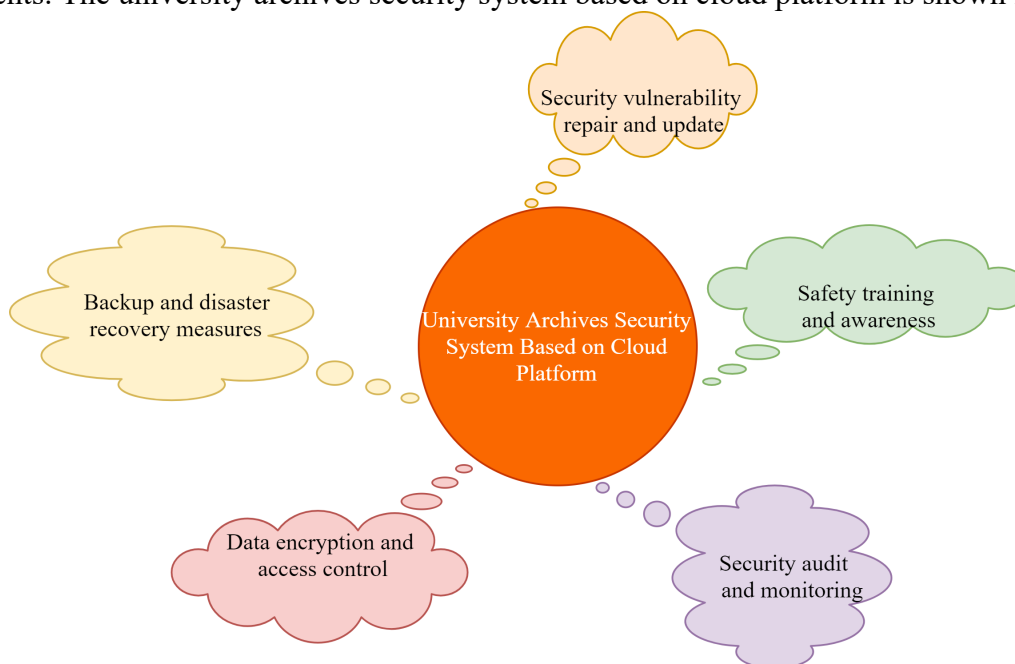


Figure 2 University archives security system diagram based on cloud platform

In a word, the university archives security system based on cloud platform can effectively prevent all kinds of security threats and improve the security level of university archives management through multi-level security measures such as data encryption and authority control, security audit and monitoring, backup and disaster recovery measures, security training and awareness, and security vulnerability repair and update. This will ensure the safety and reliability of archival data and provide better information management and protection support for universities.

#### 4. Conclusions

For university archives management, intelligent solutions based on cloud platform can bring many advantages. First of all, the solution uses cloud computing and artificial intelligence technology to realize the digitalization and online of archives, which greatly improves the efficiency and convenience of archives management. Secondly, by introducing big data analysis and mining technology, universities can obtain valuable information and knowledge from massive archival data to support educational planning and decision-making. In addition, the solution also uses automatic scanning and identification technology to convert paper files into electronic files, saving space and human resources. Most importantly, the intelligent solution based on the cloud platform has a strong security and privacy protection mechanism to ensure the security of archival data during transmission and storage. To sum up, the intelligent solution based on cloud platform has brought many benefits to university archives management, improved efficiency, provided decision support, and paid attention to data security.

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