

# Research on Quality Management of Archives Work in Colleges and Universities in the Age of Digital Intelligence

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**Abstract:** Under the background of digital transformation, the quality management of archives work in colleges and universities is facing new challenges and opportunities. Archives work is an important part of university management. This paper takes the archives work of universities in the age of digital intelligence as a breakthrough point, analyzes the existing problems, and puts forward effective strategies to improve the quality of archives work from five aspects: building a smart archives platform, strengthening personnel training, improving security mechanisms, promoting standardization construction and deepening resource utilization, so as to promote the development of archives work in universities towards modernization.

**Keywords:** archives work in colleges and universities, The age of mathematical intelligence, Quality management, Archives informatization, Archival service innovation

The application of digital intelligence technology can not only solve the problems of low efficiency and security loopholes, but also make the archives resources change from static storage state to dynamic knowledge assets, providing support for university governance, educational research and social services. Archives work in colleges and universities is facing many challenges. Accelerating the digital transformation of archives work and improving management quality are the key methods to improve the governance capacity and management level of colleges and universities.

## 1. Build a smart file management platform system and optimize the workflow

The intelligent file management platform system should have multi-dimensional functional modules, so as to realize the dynamic management of the whole life cycle of files: starting from the collection and sorting of files, then classifying and storing them, and then realizing query and utilization, and finally building a complete digital management chain. The intelligent platform can automatically complete the classification and cataloging of archives, transform paper archives into searchable electronic texts with the help of OCR technology, and use big data analysis technology to mine and analyze archives information. In daily work, the platform can implement classified storage and intelligent management for teachers' scientific research achievements, students' status information and official documents of administrative departments, and establish a multi-level archive resource database. The platform is also equipped with an intelligent retrieval engine, which supports various retrieval methods such as fuzzy query, full-text retrieval and multi-field combined query, which greatly improves the efficiency of file retrieval. With the help of cloud computing technology, the file management platform can achieve cross-departmental data sharing and collaborative office, break the information island and promote the full utilization of file resources. Based on this, by introducing artificial intelligence technology, the platform can automatically

identify and warn the files that are about to expire, and intelligently push relevant reminders to ensure the timeliness and standardization of file management. Intelligent management mode can not only reduce the error rate of manual operation, but also leave more time for archivists to develop and utilize archives.

## **2. Strengthen the digital skills training of archivists and improve their professional quality**

Under the background of the age of digital intelligence, archivists should not only have traditional archival professional knowledge, but also focus on improving their digital literacy and information technology application ability. The archives management department of colleges and universities should take the initiative to cooperate with relevant departments and organize regular training activities for archives managers, such as holding professional lectures and carrying out knowledge contests<sup>[1]</sup>. The training content can involve many different dimensions, such as file management software operation, database construction and maintenance, and information security protection, such as offering special courses such as long-term preservation strategy of electronic files, digital file retrieval technology and application of big data analysis tools. In daily work, we can adopt the training mode of "theory+practice", and stimulate the learning enthusiasm of archivists with the help of case teaching, skill competition and discussion and exchange. Regularly send key personnel to participate in industry seminars and refresher courses to keep abreast of the new trend of archives informatization construction. Establish an incentive mechanism for post assessment of archivists, incorporate the digital skill level into the performance evaluation index system, and encourage archivists to obtain relevant professional qualification certificates. By establishing a learning team, we can create a good professional development atmosphere, promote the optimization and upgrading of the knowledge structure of archivists, and provide a solid and powerful talent guarantee for the archives informatization construction in colleges and universities.

## **3. Establish a file information security protection mechanism to ensure data security**

In the era of digital intelligence, it is an important content of archival data governance to establish a security control mechanism for archival data governance<sup>[2]</sup>. From a technical point of view, the archives department of colleges and universities can build a multi-dimensional security protection system, such as using biometric identification technologies such as fingerprint identification and face recognition to carry out identity verification; Implement multiple encryption processing on key file data and set up a hierarchical access authority management system to restrict unauthorized personnel from accessing sensitive file information. In terms of data backup, we should build a triple backup mechanism of "local+remote+cloud", and update data synchronously regularly to prevent the risk of data loss caused by unexpected events such as server failure and natural disasters. In addition to technical protection, the system guarantee can rely on the formulation of rules and regulations such as the Measures for the Safety Management of Archival Information and the Emergency Plan for the Leakage of Archival Data, and clarify the safety responsibilities of the use, transmission and storage of archival information. And regularly organize emergency drills on file safety to enhance the safety awareness of staff. For third-party service providers, it is necessary to sign a confidentiality agreement and strictly regulate their data access rights and scope of use. For example, you can set up an operation trace tracking function in the file management system to record all users' data access, downloading, modification and other behaviors, and start the safety early warning mechanism as soon as abnormal operation is found. In addition, we should also pay attention to the security protection in the process of file data transmission, and adopt VPN special channel, SSL encrypted transmission and other technical means to ensure the security and confidentiality of data transmission and effectively prevent network attacks and data theft risks.

## **4. Promote the standardization of archival data and standardize the management process**

By establishing a unified data collection standard and metadata system, we can effectively solve the problems of non-standardization and disunity of archival information. First of all, the standardization construction needs to formulate a complete data collection standard, which can be started from many aspects, such as file naming rules, storage format, metadata description, etc. For example, teaching files are named in a standardized way according to "year-semester-course code-file type" to ensure the consistency and retrievability of data. At the same time, a scientific file classification system and coding rules should be established, and different types of files such as teaching, scientific research and personnel

should be sorted and catalogued according to unified standards. For example, scientific research files can be set with unified fields such as project number, achievement type and finisher, which is convenient for systematic management. In terms of workflow, by making standardized operating procedures such as collection, sorting, identification and archiving, all aspects of file management are standardized, such as establishing an electronic file filing checklist, and defining filing requirements and quality standards. In addition, to promote the standardized sharing mechanism of archival data, a unified data exchange format and interface specification can be adopted to realize the inter-departmental and inter-system archival resources exchange, so as to promote the efficient circulation and utilization of archival information. In the process of data standardization, we should also attach importance to the connection with national archives standards and norms, ensure that archives data can meet the actual needs of schools and meet the requirements of industry norms, and lay a solid foundation for archives information construction.

## **5. Deepen the development and utilization of archival information resources and innovate the service mode**

University archives should seize the opportunity and increase the development and utilization of archives information resources by relying on the advantages of the school to promote information construction and smart campus construction<sup>[3]</sup>. On the one hand, with the help of data analysis technology, we can develop special databases, such as school history and culture database, major events special question database, and historical materials database of subject development, so as to provide rich digital resources for teachers and students. On the other hand, relying on the intelligent platform to create personalized file query service, support users to retrieve the required information according to time, subject, keywords and other dimensions. In the field of teaching and scientific research services, the archives department can integrate relevant files such as curriculum construction, teaching reform and scientific research projects over the years to provide data support for teachers to carry out teaching evaluation and scientific research project declaration. In addition, through the establishment of online archives exhibition platform, thematic exhibitions can be regularly launched to show outstanding graduates' deeds, major scientific research achievements, the development history of departments and departments, and promote the efficiency of campus cultural inheritance. The archives department can also develop the mobile service function, and offer convenient services such as subscription of archives information, appointment of archives search, data push, etc. to meet the diverse needs of users. In the open use of archives, we can set up graded access rights, which not only ensures information security, but also helps users inside and outside the school to use archives resources reasonably. The multi-dimensional development and utilization of archival information resources can not only improve the service efficiency of archival departments, but also give full play to the supporting role of archives in school construction and development.

### **Conclusion:**

To sum up, the archival work in colleges and universities is in a critical stage of transformation and upgrading in the era of digital intelligence, and scientific and effective quality management is of great significance for improving the governance capacity of colleges and universities. We should actively promote the digital transformation of archival work, and build an intelligent archival management system with the help of technological innovation, personnel training and system improvement, so as to realize the overall improvement of archival work quality and service level.

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