Research of Institutional Repository of Local Colleges and Universities Based on Electronic Archives Management Construction

Xia LIU
Library of Linyi University, Linyi, Shandong, China
lubinguali@163.com

Keywords: Institutional Repository, Institutional Repository of University, Electronic Archive Management.

Abstract. This paper investigates and analyzes the status quo of electronic archives management of teaching and research in local colleges and universities. Based on the problems in management, the paper explores how to store, excavate and utilize scientifically the electronic archives through building institutional repository to promote the transformation and appreciation of knowledge, and improve the efficiency of electronic archive management.

Introduction

The Archives Law of the People’s Republic of China stipulates that the archives mean historical records in various forms, including writings in different languages, pictures, diagrams, audio-visual, etc., whose preservation is of value to the State and society and which have been or are being directly formed by State organs, public organizations and individuals in their political, military, economic, scientific, technological, cultural, religious and other activities. It is a non-current document with long-term preservation value. In the electronic era, the distinction between documents and files is becoming more and more ambigious [1]. Scientific management and the full development of electronic document resources are not only significant for the reasonable control and effective use of the institutional information flow, but also lay a fundamental role to establish a complete and reliable social memory, and promote the whole society information process in the electronic era [2]. Therefore, the electronic file-based archives management has become an important content of the information age. This article mainly takes the local university teaching and scientific research electronic document management as the example, carries on the investigation and analysis to the status quo of its management. Based on the problems in management, the paper explores how to store, excavate and utilize scientifically the electronic archives through building institutional repository to promote the transformation and appreciation of knowledge, and improve the efficiency of electronic archive management.

1. Investigation and Analysis on the Electronic Records Management in Teaching and Research in Local Universities

The electronic documents of the university include the electronic files of the school administrative office class, the electronic files of the teaching and scientific research achievements, the office electronic files generated by the departments and colleges, etc. The office electronic files, administrative documents, school archives collection areas, archives management staff will regularly submit to the archives. At present, some colleges and universities have realized the value and significance of the centralized management of teaching and research achievements in the university, and taken measures to collect and manage the whole process and build the institutional repository to promote the development of the electronic records of teaching and research achievements, such as the school knowledge resources archiving, academic exchanges, knowledge sharing, institutional academic results of the publicity [3].
In order to understand the current situation of electronic document management of teaching and research in local colleges and universities, the author conducted a questionnaire survey from July 2015 to January 2016, and selected “985” universities, “211” universities and local colleges to carry out their institutional repository. In contrast, three questionnaires were issued to the relevant staff of the three types of university libraries, among which 30 were issued by the “985” university, 60 by the “211” university, and 110 by the local university, with a total of 137 copies, including 128 valid questionnaires (9 respondents answered the questionnaire is not serious, as invalid), the effective recovery rate of 64%. The comparative analysis of the survey results of the three types of colleges and universities is as follows.

1.1 Basic lack of teaching and research electronic document management in local colleges and universities

According to Fig 1 we can see that the construction of institutional repository in the “985” universities, “211” colleges and universities to carry out slightly better results, local colleges and universities did not carry out the majority of construction. At present, the most remarkable effect of construction is the National Science and Technology Library of the Chinese Academy of Sciences institutional repository, in addition to Peking University, Xiamen University, Beijing University of Science and Technology, Zhejiang University, University of Electronic Science and Technology, Dalian University of Technology and other colleges and universities. While the local institutions of higher learning building institutions repository less, or even not carried out, basically in a blank state.

1.2 Local colleges and universities teaching and research electronic document management resources single

Figure 1. Basic Situation of Institutional Repository Construction.

Figure 2. Resources Collection.
According to the survey results can be seen that the construction of better colleges and universities, such as “985” universities, “211” colleges and universities included more abundant resources, especially the University of scientific research included more complete, followed by the characteristics of special resources, the school teaching some of the results in the website Direct link quality courses, MOOC courses, etc., are not included in the institutional repository. At present, with the distinctive feature of the Chinese Academy of Sciences Institutional Repository, the expansion and development of scientific research management service is worth learning. And local colleges and universities are the basic feature of local special collection and storage of resources. See Fig 2.

1.3 Local university teaching and research electronic file management update hysteresis

The survey results are shown in Figure 3, research institutions have built institutions repository of colleges and universities, “985” colleges and universities to update the electronic file more timely, can reach 84%. Update time is relatively slow, “985” colleges and universities in 16%, “211” colleges and universities in 57%, about 12% of local colleges and universities. The phenomenon that the institutional repository is not updated is very prominent in local colleges and universities, which is 88%. The “211” universities are around 22%, and the “985” universities do not have this phenomenon. From these Figs, different institutions of higher learning on the importance of institutions repository construction are not the same, the importance of its construction is not the same understanding, and thus the construction efficiency and effectiveness are significantly different. If the institutional repository is not updated in a timely manner, or even long-term does not update, naturally lost the meaning of construction.

2. Construction of Institutional Repository in Local Universities

The results show that the status of teaching and research electronic document management in local colleges and universities is quite different from that of “985” universities and “211” universities, showing a non-unified, unbalanced and imperfect state, In a blank situation, part of college library has been built due to lack of routine maintenance mechanism, exist in name only. From the long-term development of the school, it is urgent to build an institutional repository that meets the actual needs, unified management and unified standards in order to improve the standardization, systematization and digitization of the electronic records management of teaching and research. According to the specific situation of local colleges and universities, the author puts forward some relevant countermeasures.

2.1 Planning and design of institutional repository in local universities

In order to ensure the continuous renewal of resources and improve the efficiency and effectiveness of construction, the overall planning and construction of the institutional repository must be closely linked with the management services and disciplines of the school in the aspects of role design,
resource collection design and function design, highlighting the self-produced knowledge resources. Archiving and utilization, the construction and use of characteristics of resources in two areas, combined with the relevant policies of schools to enhance the use of institutional repository functions. For Linyi University, for example, the end of each school should be on the faculty, the units of the annual assessment, the implementation of teaching and research awards. The establishment of institutional repository can take this opportunity, the use of school assessment mechanism, to carry out the planning and design of institutional repository [4].

Institutional repository construction role design. The Institutional repository contains a variety of electronic knowledge resources for school teaching and research staff. The members involved in the management, production, provision and use of knowledge resources include libraries, faculty, research teams, students, teaching and research management departments and secondary colleges. Among them, the library as the knowledge resources management department should be the main body of the building of institutional repository, staff, students, research teams should be the producers of knowledge resources, providers and users, teaching and scientific research management, secondary knowledge resources Of the file management and users. The relationship between them can be expressed as shown in Fig 4.

![Figure 4. Role Design of Institutional Repository Construction.](image)

The construction of institutional repository is not only the knowledge management of colleges and universities, but also the management of electronic files in colleges and universities. It should be planned and constructed from the perspective of the whole electronic document management of colleges and universities, and different types of electronic documents can be classified to form a good knowledge resource management and utilization mechanism. University teaching and research electronic file resource storage is more dispersed, were attached to the school science and technology department, social science department, academic affairs office, academic department and library. After analysis and integration, institutional repository included resource planning and design shown in Fig 5.

![Figure 5. Design of Resources Collection of Institutional Repository.](image)
2.2 Design of resources collection

(1) The use of departmental annual assessment mechanism to collect. The biggest problem encountered in the construction of institutional repository is how to change from the traditional organization-driven to user-driven to ensure the comprehensive and accurate collection of resources [5]. The use of the annual school assessment mechanism, requiring teaching staff annual teaching and research results directly uploaded institutions repository, the full text included, the system in accordance with the relevant departments of teaching and research related to statistical standards for statistical classification system design, description field, taking into account the function of the two, the maximum To ensure the quality and effectiveness of resource collection after use of the system.

(2) The use of a variety of ways to collect back resources. For the knowledge resources before the use of the system, the library should organize personnel to collect, collate and record the back-trace resources through various channels, such as the purchased database, or collecting and consulting archives materials for the whole school staff. Institutional repository complements. This work is more complicated.

(3) To strengthen the construction of characteristic resources. The school library should be combined with the characteristics of the collection of resources, the school key disciplines of teaching, scientific research, local economic development of information resources to focus on support.

2.3 Functional design of institutional repository

In order to ensure the construction of institutional repository in universities can be strongly supported by the relevant departments and teachers, the system design must not only focus on the creation of user value, but also pay attention to the analysis of teaching and research management, and other value-added services [6]. The function design of institutional repository of local university is shown in Fig.6.

![Figure 6. Function Design of Institutional Repository.](image)

According to Fig 6, the librarian manages the staff members, and can add, delete, query and modify the member information, and manage the resources and backtracking resources, and can record, delete, query and modify the information. Faculty and staff can upload their own scientific research at any time, the college students upload information on the award-winning results, undergraduate students excellent graduation thesis, it is necessary to fill in the detailed description of the information, but also
upload or add scientific research PDF format, picture types of full text information, links to online courses, etc., unified provisions of the annual entry deadline. Each department includes the Social Science Department, the Science and Technology Department, the Academic Dept., the Academic Department, and the College of Engineering. The results of the annual export are restricted and the relevant paper materials are submitted to each college for examination and approval. The information provided by the college can not be modified, as a permanent file storage system at the same time according to the pre-imported journals categories, subject level, award-winning level, set the score, automatically assigned to complete.

Conclusion

The construction of institutional repository of local colleges and universities is a systematic project of the cooperation of universities, departments, colleges and staffs. It can not only promote the efficiency of electronic documents management in universities, but also save the cost of management in colleges and universities, and minimize the running cost. Relying on institutional repository, the library can be cut into the teaching, research and innovation activities of the college to improve the level of academic services; faculty and staff have free access to all the resources of institutional repository and academic exchange; and related department can provide decision-making services for the development of universities. Therefore, the universities must effectively protect the common objectives and interests of mutual cooperation, mutual benefit among the three parts, and establish the long-term mechanism to make sure that the repository can continue to get “the source of living water” and form a virtuous circle of the “think tank”.

References


