Discussion on the Reskilling Education of Archival Professionals Under the Background of Information

Xiuqin Wu[1]

[1] *Shandong Technology and Business University, Yantai, Shandong, China*
[1]*Corresponding author. Email: 201511353@sdtbu.edu.cn*

ABSTRACT
Artificial intelligence technology has strongly entered the field of archives, promoting the transformation of traditional physical archives into information-based digital archives, and fundamentally changing the entire process management of archives, under the background of information. As a result, the traditional management and operational skills of archival professionals have fallen behind, and there is a need for re skilled education to master the level of intelligent management, possess corresponding artificial intelligence skills and intelligent service skills, and ultimately achieve the transformation from de skilling to re skilling.

Keywords: *Information technology, Archival profession, Archivist reskilling education.*

1. INTRODUCTION

The speed of iterative development of artificial intelligence technology is getting faster and faster, and society and various fields have been connected and developed by artificial intelligence technology, forming an information-based society where everything is interconnected. The field of archives has always had a certain sense of boundaries, but with the empowerment of artificial intelligence technology, archive management is shifting towards integrated application management of artificial intelligence technology, namely intelligent archive management. This transformation has led to the outdated work skills of archive professionals under the traditional physical archive management model, resulting in passive de-skilled. Therefore, archivists need to undergo re skill education to adapt to intelligent management of archives.

2. BACKGROUND OF RESKILLING EDUCATION

2.1 Development of Social Information Technology

Baidu Baike shows that, reskilled refers to the process of enabling individuals to acquire the necessary knowledge for life skills and vocational skills through education and production practice activities. Education plays a crucial role in the realization of deskilled Deskilling is a general term for technological change that makes it possible to hire workers with fewer skills by changing the production process. The fundamental driving force behind the transition from skill based to de skill based management is the development of high-tech technology in society. Artificial intelligence technology is the result of the development of high-tech technology in society, and intelligent management of archives is the result of the application of artificial intelligence. Baidu Baike explains that re skilling refers to the improvement of workers' skill levels through skill training and education, in order to adapt to new job demands and changes in market demand, with the widespread application of automation and intelligence technologies. From this, it can be seen that in the information age of rapid iteration and development of artificial intelligence technology, re skilled education is a development trend that workers in various industries must face. In the field of archives, the application of artificial intelligence technology has changed the traditional mode of archive management, and the labor mode of archive professionals has also been correspondingly changed. New forms and high skilled positions have emerged. Traditional archive workers must undergo re skill education in order to meet the demands of new high-tech positions in the archive field. At the same time, for individuals, re skilled

education can help archive workers enhance their employment competitiveness and reduce the risk of unemployment.

2.2 The In-depth Application of Artificial Intelligence Technology in the Field of Archives

Artificial intelligence technology is widely applied in the information society and deeply embedded in the field of archives. As a result, the physical management mode and theoretical management concept of traditional archives have been overturned, and the physical full process management of traditional archive resources has been transformed into the metadata capture and management process of electronic archive resources using artificial intelligence technology. In the entire process of traditional archives, manual collection, classification, and filing are manually completed by archive personnel. After embedding artificial intelligence into the archive system, the metadata of archive resources is captured and collected by artificial intelligence, and big data statistics are used for classification and grouping. Then, page numbers are automatically generated and key elements are automatically captured and entered into the archive directory. After the directory is formed, artificial intelligence captures key elements such as keywords in the archive directory to form the archive skin and automatically attaches page preparation tables. After a series of processes are completed, the digital form of the archive is completed, and then it is automatically included in the digital archive database. Therefore, the digitized archive is managed by the integrated application of artificial intelligence technology throughout the entire process, which makes the entire process of the archive almost without human intervention. The sentence is: After the full process management of electronic archives is completed, physical paper archives are sorted and organized by archive personnel based on digital files. Page numbers are prepared, metal binding materials such as staples are removed from physical archives, and attached sheet preparation tables, catalogs, and roll covers are output for line binding. The physical form of the archives is then formed. This process is as simple as a production line operation, requiring almost no professional knowledge or practical operation skills in the field of archives. It no longer requires archive workers to reserve professional knowledge in archives, identify and collect files, classify them by category, or draft titles for case files. Almost all work that requires professional knowledge is replaced by artificial intelligence. Archive workers only need simple and repetitive mechanical labor, and this type of work no longer requires traditional archive specialization skills. As long as archive workers have basic labor abilities and cooperate with artificial intelligence technology, they can complete it, and archive workers are de skilled.

The empowerment of artificial intelligence technology has led to the de skilling of traditional archives, but it will also create new, high-tech re skilling job positions. No matter how the traditional archive management model transforms towards intelligence and informatization, its essence and function have not changed. Both are still historical records, and its function is still to "preserve and preserve history, and provide guidance and education". The difference between electronic form archives and traditional physical form archives lies in the different carriers, but they still require full process management. The empowerment of artificial intelligence technology has enabled the automation management of electronic archives, but its entire process management is still the management of the formation, collection, organization, storage, utilization, and destruction of archives. The essence and full process management of archives have not changed, and the knowledge system structure of management has not fundamentally changed. What has changed is only the supplementation of new knowledge content and the practical operation process of archives. Therefore, it is necessary to provide re skilled education for archive professionals.

2.3 Promotion by National Policies

The high-quality development of national archives was on its way, on June 9, 2021, the General Office of the Central Committee of the Communist Party of China and the General Office of the State Council issued the "14th Five-Year Plan for the Development of National Archives" (hereinafter referred to as the "Plan"), which proposes: "Strengthen the application of new generation information technologies such as big data and artificial intelligence in the construction of digital archives (rooms), and promote the optimization and upgrading of the construction of digital archives (rooms)... in order to deepen the strategy of archives Information... On January 26, 2024, the State Council promulgated the Regulations on the Implementation of the Archives Law of the People's Republic of China (Order No.

772 of the State Council of the People's Republic of China), which proposes in Chapter 5 of the Regulations, "Archives Information Construction"... The construction of archives Information should be included in the unit's Information construction plan, strengthen the construction of office automation systems and business system archiving functions, and connect with the electronic archives management information system to realize the whole process management of electronic archives. "On November 1, 2024, the National Archives Administration issued Order No. 22 "Measures for the Management of Electronic Archives". The promulgation and implementation of a series of policies for the national archives industry have promoted the rapid development of archives Information, which has also prompted the urgent need for re-skilled education for archives professionals in order not to be eliminated in the process of high-quality development of the national archives.

3. THE CONTENT OF RESKILLING EDUCATION

3.1 Ability to Use Information Technology

Age of information, artificial intelligence technology is deeply embedded in the whole process of archival resource collection, sorting and classification, storage, retrieval and utilization, identification and destruction, etc., to realize the intelligent application and management of the whole process of archives. For example, OCR technology and Chinese word segmentation tools, data analysis algorithms, natural language processing technology, image recognition technology, expert systems and other information technologies are fully applied in the whole process management of archives. In the process of digitizing inventory files, after the archivists have completed the processing of archives, they must also master CCD technology, OCR recognition and document management and other technologies to quickly and automatically convert the archives of the inventory paper medium into electro-digitized text or images, and realize high-speed information retrieval. As practitioners of the archival profession and implementers of archival work, archivists should take the initiative to receive re-skilled education with the high-quality development of the archival industry, and educate and learn to master and have a series of information technology processing capabilities.

3.2 Ability to Use Intelligent Software

Age of information, intelligent office software, online applets and intelligent file management platforms are constantly iterating and optimizing, and the development of information technology, especially artificial intelligence technology, is changing with each passing day. For example, automatic roll printers, intelligent temperature control and other management equipment in the warehouse, WeChat online file checking APP and intelligent file management system, etc., which require archivists to have a variety of control and use capabilities. When digitizing inventory files, archivists need to be proficient in operating automated professional scanning software; Archivists should be proficient in commonly used editing software when editing oral records. In order to be proficient in the use of intelligent software and other technologies, it is necessary to participate in re-skilled education, training and learning to meet the requirements of the information age.

3.3 Proactive Service Capabilities

Because of the limited technical methods, the utilization service of traditional archives information resources is based on the needs and opinions put forward by the users, and then provides the query results after the archives file inquiry, and this service mode is passive, so the accuracy and utilization rate of traditional archives information resources are not high. After the transformation of traditional archives to information-based archives, the use of archives services to achieve online information services, archivists should change service ideas and concepts through re-skilled education, and improve the ability of information-based active services. For example, archivists can use big data to count various types of user demand information, dig out the regularity and universality of the use of data, with the support of artificial intelligence technology, with the help of OCR, etc., the archival resources are semantic split in the form of text, and the archival information resource service library is established through the semantic framework, knowledge graph, etc., and the passive archival service is turned into an active service. Due to the promotion of the state and the strong intervention of artificial intelligence technology in all walks of life, the traditional archives management has changed to information-based archives management, and the traditional "waiting" passive service model has not adapted to the management

requirements of the information-based archives era. Therefore, archivists must improve the ability and efficiency of the active service model of information archives through re-skilled education, so as to adapt to the development of information archives.

4. RESKILL-BASED EDUCATION

4.1 Utilizing Archival Education Network Platform

The re-skilled education of archival professionals is a kind of continuing archival education. At present, the continuing education of archivists is mainly supported by official training institutions, and a number of standardized and professional archival continuing education network platforms have been built, which have the function and role of improving skills learning. Relying on the education platform for archives professionals and technicians, the national archives institutions embed the education courses and professional teacher resources of archives resources into the platform, creating an education resource library for archives professionals, and at the same time using the "conference live broadcast system" of Tencent Meeting and DingTalk to conduct remote meetings and live archive network continuing education courses, and conduct on-the-job online education and training for archives professionals.

The Ministry of Human Resources and Social Security has organized the construction of a number of national professional and technical personnel continuing education bases and platforms, in order to ensure the implementation of the national professional and technical personnel knowledge update project, in recent years. [1] These platforms are more open and shared, and the embedded continuing education courses in them keep up with the hot spots in the archives industry and the concept of information archives management, which can be used by archivists to learn without time and space restrictions, and archivists can learn the professional skills and knowledge of archives modules on these educational network platforms to improve their own information archives management skills.

4.2 Participating in Skills Education Training

Archivists can also improve their skills by participating in vocational education and training. Various skills training courses and conferences are one of the forms of skills education and training.

Archives vocational training is a kind of training activities aimed at improving the information archives management concept and special knowledge, operational skills or professional ethics of archives in-service personnel. In the modern society with fierce economic competition, although the field of archives has a high sense of professional boundaries, due to the strong intervention and rapid development of artificial intelligence technology, traditional archives have been transformed into information-based archives, so that high-skilled archival talents have a competitive advantage in archival work. In order to improve the vocational skills and literacy of archival professionals, the State cultivates and supports archival vocational education, establishes vocational skills training bases, and actively advocates and promotes all kinds of archival institutions to carry out archival vocational education, training, exchanges, and training courses. Therefore, the archival vocational training courses held by various archival institutions cover all kinds of Information skills and archival management concepts of archives, which greatly facilitates the re-skilled education of archival professionals.

The archival meeting is generally 1-3 days for the exchange time, the time is short, the content of the agenda arrangement is more, and most of the time the meeting is the interpretation of the archival experts and industry professionals on the tracking of current affairs in the industry, and the staff at the grassroots level of the archives are limited to business exchanges between peers, which is not very helpful for the re-skilled education of the archives profession, but this kind of archival conference can broaden their way of thinking and knowledge about information technology.

4.3 Participating in Archival Distance Continuing Education

Actively promoting the development of "Internet + education" is an important part of the national "Education Information 2.0 Action Plan". [1] Distance continuing education has been given a qualitative leap by Internet technology, and it is an education method that optimizes the combination of a variety of modern technologies and media. Archives distance continuing education mainly relies on institutions of higher learning, scientific research institutes, social training institutions, etc., relying on institutions to transmit audio, video, and

real-time or non-real-time archives courses on archival professional knowledge, professional technology, etc., to archival professionals outside the campus through information technology, and conduct on-the-job education for archivists. The advantage of this educational method is that there are professional and high-quality educational courses and teacher resources to serve the incumbents of the archives. Especially for the in-service personnel of regional archives who have not received professional academic education in archives and the imbalance and inadequacy of offline continuing education, this education method can give full play to its advantages and make up for its shortcomings, and can improve the operational skills of archives management theory and information management of in-service personnel, so as to meet the requirements of high-quality development of national archives..

5. CONCLUSION

The traditional archives life cycle management has a strong sense of professional boundaries, which weakens the extensibility and relevance of archives to society. However, in the information age of the Internet of Everything, the empowerment of artificial intelligence technology has broadened the boundaries of archives, and the information management of archives has improved the relevance of archives to society.

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