

Research on the Security System of Digital Archives Information

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Abstract: Archives are not only the witness basis of history, they truly record history, and at the same time, they are a very important information resource and an important strategic resource related to the development of the national economy and society. The informatization sweeping the world has had a huge impact on the security of archives information. The extensive application of information technology in archives management has led to earth-shaking changes in contemporary archives management concepts and thoughts. Archives management methods and methods are digitalized and networked. Archives Information carriers are diversified, file information security issues are becoming more and more prominent, and it is more difficult to ensure file information security. Therefore, the requirements for the professional quality of archivists are getting higher and higher. With the diversification of archive information carriers and the rapid growth of the number of electronic files, a problem that cannot be ignored is the security of digital archive information. The security issue of digital archive information has become the issue of digital archives and others. One of the strategic issues of digital information systems.

1. Introduction

With the rapid development of modern information technology, the wave of informatization has swept the world, causing major changes in the socio-economic structure, production methods, and consumption structure, and profoundly changing the face of the world. Informatization is having a huge impact on society, economy, technology and other aspects. Digital information is growing and developing at a speed beyond people's imagination. More and more information and documents are produced and stored in digital form. For example, "The local storage data of Tsinghua University Library has exceeded 3TB as of 2004." Especially the Internet is full of a large amount of digital information, so that people compare the rapid growth of digital information on the Internet to "information explosion". ". Archives are not only the witness basis of history, they truly record history, and at the same time, they are a very important information resource and an important strategic resource related to the development of the national economy and society. The informatization sweeping the world has had a huge impact on the security of archives information. The extensive application of information technology in archives management has led to earth-shaking changes in contemporary archives management concepts and thoughts. Archives management methods and methods are digitalized and networked. Archives Information carriers are diversified, file information security issues are becoming increasingly prominent, and it is more difficult to ensure file information security. Therefore, the requirements for the professional quality of archivists are getting higher and higher. With the diversification of archive information carriers and the rapid growth of the number of electronic files, a problem that cannot be ignored is the security of digital archives information. The security issue of digital archives information has become the issue of digital archives and others. One of the strategic issues of digital information systems.

2. Legal Protection of Digital Archives Information Security System

Legal protection is an important means to build a digital archives information security system. Only by establishing a complete digital archives information security legal system can there be laws to be followed, laws must be followed, law enforcement must be strict, and violations must be

investigated. In the work of ensuring the information security of digital archives, it is necessary to strengthen legal management, make full use of legal means to standardize the digital archives information security work of archives management personnel, and incorporate various work to ensure the security of digital archives into legalization and standardization. track. At the same time, in order to enhance the service awareness of the archives department, there must be a guarantee of the legal system, and then improve the management level of the archives management department for the security of digital archives and promote the development of archives informatization. This chapter discusses the role of relevant laws and legal guarantees in the construction of the digital archives information security guarantee system in China, and proposes measures to improve the legal guarantees.

In the informatization construction of modern archives, it has increasingly shown its reliance on laws and regulations. The coordination of various social relations in archival work must be guaranteed by laws and regulations. The implementation of various business norms and operating procedures in archival work must be realized by the implementation of systems and regulations. "From a big point of view, a civilized and progressive society must be a society with a sound legal system. The archives undertaking that represents the development direction of the 21st century must be a civilized social undertaking that integrates socialization, informatization, and legalization." ① In the construction of my country's digital archives information security system, legal protection is an indispensable part. Complete digital archives information security laws and regulations are an important means to effectively guarantee the construction of digital archives information security system. The basic principles and basic systems of digital archives information security assurance, the norms of digital archives information security-related behaviors, and penalties for violations of digital archives information security assurances, etc., are all clarified through relevant laws and regulations. With a complete legal guarantee for digital archives information security, a correspondingly strict judicial and strict law enforcement environment, and with the compliance of laws and regulations by the majority of archives management departments and the fulfillment of their due obligations, it is possible to create good guarantee numbers. The legal environment for file information security ensures the smooth and safe progress of file informationization. In recent years, my country has successively promulgated some administrative regulations related to the security of digital archives information. But on the whole, it is still unable to provide an effective legal basis for solving the complex problems faced by the construction of the digital archives information security system. Therefore, it is necessary to further improve the legal protection of my country's digital archives information security system.

3. Technical Guarantee of Digital Archives Information Security Guarantee System

"Firewall" is a very vivid term. It is a system or a group of systems composed of computer hardware and software used to enhance access control between the internal network and the Internet. It is a barrier set between the protected network and the external network, and a security gateway is established between the external network and the internal network to prevent unpredictable and potentially destructive intrusions. It can monitor, restrict, and modify the data flow across the firewall, as much as possible to screen the information, structure and operating conditions inside the network, so as to achieve network security protection. It is one of the most basic, most popular, most economical, and very effective measures to realize the isolation and access control of internal and external networks. "Common firewalls can be classified into three categories, namely, packet filtering firewalls, dual-home gateway firewalls, and shielding subnet firewalls." Firewall technology mainly guarantees the confidentiality, integrity, availability and reliability of digital archives and prevents digital archives from being compromised. Information is illegally accessed and virus invasion is prevented. However, firewall technology is not a panacea. It cannot resist internal attacks, nor can it resist the harm caused by weaknesses in the underlying system. Therefore, it must be used in conjunction with other security systems in actual work.

The purpose is to encrypt the data stream in transmission. Commonly used methods include line

encryption and end-to-end encryption. The former focuses on the line without considering the source and sink, and provides security protection for confidential information through the use of different encryption keys on each line. The latter means that the information is automatically encrypted by the sender, and then entered into the TCP/IP data packet to be sealed, and then passed through the Internet as unreadable and unrecognizable data. Once the information reaches the destination, it will be automatically reorganized and decrypted. Become readable data. This technology can guarantee the confidentiality, integrity, authenticity and reliability of digital archive information. The purpose is to prevent data loss in the storage link, which can be divided into ciphertext storage and access control. The former is generally achieved through encryption algorithm conversion, additional passwords, encryption modules, etc.; the latter is to review and restrict user qualifications and permissions to prevent illegal access to data or unauthorized access to data by legal personnel. This technology can guarantee the confidentiality and integrity of digital archive information.

4. Talent Guarantee for Digital Archives Information Security Guarantee System

The 21st century is the era of knowledge economy and informationization. For archives management in the information age, we are in a brand-new living environment and working environment. Archives management work should adapt to the requirements of the information age and follow the rapid development of science and technology. "What is the most expensive in the 21st century? Talents!" Talents are the most precious resource. To ensure the security of digital archives information, people are the first element. "The digital archive information security awareness, quality level, and innovation capabilities of archive personnel and related personnel directly affect the security of digital archive information." The reason is very simple. Anything about the digital archive information security system is done by people. All technical and management measures are just auxiliary means for the construction of the digital archives information security system. The formulation of strategies, the application of technical tools and the implementation of the final plan must rely on people, which shows the importance and preciousness of talents. Even if there is advanced equipment, no one can use it, it is equal to zero. Therefore, without a large number of talents, the construction of this system cannot be successful.

Do a good job of publicity, increase the visibility of the archives industry, provide various preferential policies that reflect and enhance the value of security talents, truly let security talents see a promising stage, recruit talents from all over the world, and change the shortage of digital archives information security talents situation.

Establish the employment concept of "don't ask for my possessions, but ask for my own use", learn to "borrow chickens to lay eggs", the stones of other mountains, good jade for me.

The leaders of the archives management department should pay attention to improving the professional quality of the staff, and at the same time pay attention to the cultivation of team spirit. Through various forms, spare no effort to excavate digital archives information security personnel. The quality of archive management personnel is the key to promoting the development of archives. Personnel engaged in archives management should adapt to social development. They should not only be proficient in operating modern tools and advanced management methods, but also have certain professional knowledge, love archives, study business assiduously, and strive to improve their political and professional levels. It is necessary to organize archive management personnel from time to time to conduct business training, strengthen follow-up education, and update knowledge. Strictly control the entry of talents, pay attention to the introduction and recruitment of some talents with professional technical skills to enrich the archives team. As the saying goes: Chollima is often present, but Bole is not often present. Therefore, the leadership's attention to seeking talents and discerning talents are more commendable.

The macro-control of the talent structure involves all aspects of society, and all-round control should be implemented from multiple angles. One is policy regulation. The archives management department that lacks talents must formulate effective preferential policies for absorbing and stabilizing talents based on actual conditions, so as to maximize the benefits of talents. The second

is the regulation of employment mechanism. The slogan of “respect knowledge and respect talents” that has been shouted for many years must be truly implemented in actions, optimize the talent environment, and strive to form a good atmosphere and mechanism that attracts talents, discovers talents, trains talents, retains talents, and makes good use of talents. The third is the adjustment of treatment benefits. Establish an interest distribution mechanism that is in line with the market economy, and pay salaries and bonuses to talents who have made outstanding contributions. The fourth is to restrict regulation in accordance with the law. Formulate policies and regulations related to the flow of talents to prevent the improper behavior of talents in the disorderly flow from causing economic and technical losses to the unit and society. It is necessary to scientifically grasp the status of the existing talent structure, comprehensively adjust the education system, legal system, macro policy and other measures, innovate the education system, and highlight the cultivation of talents' innovative ability, cross-cultural communication ability, information collection and processing ability , Adjust the quality structure of talents. Through the reform of the education system, the educational level and knowledge structure of talents will be improved as a whole, and efforts will be made to gradually rationalize the new talents and the entire talent structure to meet the long-term requirements of the information society and knowledge economy operation, and to ensure the requirements of human resources and social development. Coordination.

5. Conclusion

The construction of my country's digital archives information security system is a new issue that has emerged during the advancement of archives informatization. Digital archives information security guarantees involve all aspects of archives informatization construction, including laws, standards, technology, management, and talents. Is a complex system engineering. Ensuring the comprehensive and lasting security of digital archives is by no means a simple stacking of a number of security products. Security is not an isolated technical category, nor is it a panacea that can cure all diseases. Now, people have generally realized that the information security of digital archives is not only a technical issue, but also a management issue. It requires a multi-pronged approach to deal with various risks in an all-round way. In addition, some traditional security protection methods are relatively passive and lagging, and cannot cope with the ever-changing new digital archive information security threats and challenges. Only by establishing an advance and active security protection mechanism and continuously adjusting and optimizing for new risks can they to maximize the protection of digital archives information resources.

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