Management and Construction of University Books and Materials Under the Background of the Internet

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Abstract: The rapid development and popularization of Internet technology has provided important support for the informatization reform of various industries. University books and materials have the characteristics of large quantities and difficult storage and management. Its digital storage and management platform construction can effectively realize the digital storage and real-time retrieval of books and materials, and help students and teachers to find and use books and materials more quickly. Especially in recent years, with the update of intelligent platforms and other technologies, the resource-sharing platform of university books and materials can realize more convenient book information retrieval without the limitation of time and space. This paper mainly explores the optimization path and platform construction scheme of university libraries and information management under the background of the Internet, hoping to provide some theoretical references for university library managers.

Keywords: Internet; Colleges and universities; Books and materials; Management; Construction

Online publication: June 5, 2024

1. Introduction

College libraries provide educational resources for college education and are an important base for students to acquire knowledge. Traditional library management is to store paper materials in different layers and regions, purchase and update them in time, etc. Students search and read books according to their needs, and problems such as delayed book return and non-standard storage are prone to occur, bringing challenges to library management. With the continuous update of information technology and digital technology, the information reform and construction of college books and materials have received extensive attention. The digital transformation of college books and materials can provide support for the enrichment of books and materials, the improvement of resource utilization efficiency, the convenience of data utilization and resource sharing, and better meet the needs of teachers and students in college in acquiring and reading books and materials \(^1\). It aims to provide teachers and students with more convenient library information services, but at present, there are still many problems in the information management and construction of university books and materials, especially
2. The requirements of the Internet for the management and construction of university books and materials

2.1. Digital integration of book materials
Under the background of the Internet, it is required that college books and materials are no longer based on the traditional partition storage of paper materials and the on-site borrowing of libraries; it is also required that libraries carry out the digital integration of books and establish a digital book database by means of scanning and digital input of the current paper books in libraries, which is convenient for teachers and students to find and read. It should be noted that the digital integration of university books and materials needs to be managed in accordance with standard formats and naming norms, so as to provide teachers and students with convenient retrieval and reading support. After the completion of the digital integration of books and materials, digital storage should be carried out, relying on the huge data repository of information technology to achieve the storage of a large number of books and materials, reducing the consumption of library space.

2.2. Sharing of data
Many traditional paper books in colleges and universities only have one or a few books, repeated borrowing easily leads to short supply, affecting the use efficiency of teachers and students. Under the background of the Internet, the digital integration and sharing of college books and materials can effectively improve the utilization efficiency of the materials, provide more convenient services for college teachers and students, and reduce the capital consumption caused by the repeated purchase of the same book and materials. Moreover, the sharing of materials can also be free from the restrictions of time and place, especially the sharing of resources with other universities and libraries, so as to provide more reading resources for teachers and students of universities and improve the utilization efficiency of resources.

2.3. Diversified book information services
Traditional book and material services require teachers and students to search and read in the library. Under the background of the Internet, the construction of digital book and material management platforms can establish a virtual library. Teachers and students in colleges and universities can share and use books and materials by means of online reading, online discussion, remote consultation, etc., especially the cooperation between university libraries and other universities and libraries. It provides students with more diversified data types and more open service methods to effectively meet the different reading needs of teachers and students in colleges and universities.

2.4. Expansion of management responsibilities
The traditional university library management personnel generally only need to carry out the classification, preservation, borrowing management of books, and so on, the management content is single. Under the background of the Internet, with the deepening of the construction of the digital management platform for books and materials, managers no longer simply carry out the sorting of paper books and materials, but need to expand their management scope and responsibilities. They not only need to carry out the digital integration of digital books and materials, but also update resources. It is also necessary to carry out the network security management of the digital platform, cooperate with the management personnel of other parts of the university.
to implement resource sharing management, etc., to provide safe and convenient book reading services for teachers and students in colleges and universities[7].

3. The difficulties in the management and construction of university books and materials

3.1. Insufficient investment in information technology and equipment and inadequate construction effect
The information management and construction of college books and materials inevitably need the support of good digital hardware and software technology and equipment, but it has received insufficient attention and investment. Many colleges and universities have deficient financial support for the digital transformation of libraries, and still use the traditional mode, especially the use of outdated information technology with slow systems to organize books and materials. However, in the face of a large number of library materials and tedious book searches, it is difficult to meet the students’ demand for book search efficiency. In addition, due to the insufficient storage space of information technology equipment and the slow running of servers, the equipment will be delayed and the data will be lost, which will affect the efficiency and effect of the digital management and construction of university books and materials. Moreover, in the digital era, the requirements of university teachers and students for libraries are not only to provide timely retrieval, reading, etc., but also remote access and real-time interaction. However, due to the backward digital technology of university books and materials, they cannot meet the needs of students, affecting the satisfaction of university teachers and students[8].

3.2. Deficient information literacy of library management personnel and failure to implement information management
As the main implementer of the reform and construction under the background of the Internet, university library management personnel need to have professional information technology application skills and digital platform management skills. However, at present, many library administrators in colleges and universities are faced with the problem of insufficient information literacy. In particular, the working mode of university library administrators has always been rather boring, which only requires the partitioning and storage of paper books and materials according to requirements[9]. Under the influence of long-term traditional management mode, many administrators have not established the cognition of digital management and construction. Ignoring the implementation of information management and service work, and even thinking that the application of information management technology is unnecessary, there is a negative and contradictory psychology, affecting its information management and construction. Currently, the information management of books and materials has been carried out for a short time, and many managers do not have professional information technology application knowledge and skills. Even if the school is equipped with corresponding information technology and platform, it cannot be used normally, and even application problems occur[10].

3.3. Imperfect management system and superficial informatization reform
The information management and construction of university books and materials is the main direction of its future development. Although many universities are actively equipped with corresponding digital technology and management personnel to cooperate with the implementation of information construction, the implementation of the current management system is not perfect, especially the provisions on the information management and construction process of libraries and organizational structure[11]. As a result, library managers are not clear about the management process of digital management and construction, and the construction
of the information platform is not standardized or the process is chaotic. Moreover, the uncertainty of the organizational structure also leads to the lack of awareness of the management of their own responsibilities, neglect of writing with other departments of the university, etc., resulting in the lack of sharing of library materials and writing with other departments, affecting the service effect of the library. In particular, the network security problems generated under the Internet will also happen due to the imperfect management system, the leakage of students’ personal information, and the security risks of the book information platform. In addition, as an important place for storing all books and materials in colleges and universities, libraries also contain many relevant policies of schools and academic research contents of teachers, etc. Once network security risks occur and are tampered with or deleted by criminals, it may not only cause academic equity problems but also the loss of important research data and theories, affecting the development of colleges and universities and posing a security risk to the entire education community.\[12\]

4. Optimization strategies of management and construction of university books and materials under the background of the Internet

4.1. Increasing capital investment and equipped with good hardware and software facilities to promote the construction of the database

In order to better implement the construction of college library information platform, colleges and universities should increase capital investment in the management and construction of books and materials, and seek support from the government and social organizations; especially under the digital transformation of all walks of life, the government can use tax incentive policies to encourage local network operators to optimize the network coverage of colleges and universities and support the digital transformation of libraries. Universities should also actively invest in the purchase of advanced technology, hardware and software equipment, especially digital books and materials. For example, they can cooperate with local libraries, other universities, publishing houses, and other organizations, such as jointly establishing a digital platform for books and materials with other universities to realize resource sharing and reduce capital investment; or learn the experience of library digital transformation, rely on its more abundant book resources, etc., to improve their own digital management and construction quality. In order to ensure the quality of digital management and construction of books and materials, it is also necessary to equip more advanced management systems, good wireless network support, servers, etc., to improve the quality of database construction.\[13\]

4.2. Strengthening the training and education of library management personnel and implementing information management

The improvement of professional quality and information quality of library management personnel in colleges and universities plays a positive role in the implementation of information management and the construction of books and materials. Colleges and universities should actively encourage library management personnel to participate in training in information management platform construction, information technology application skills, advanced library management skills, and other related knowledge and skills, so that they can establish the information management concept and learn the university library information management system and platform operation norms, daily application mode, etc., so as to better implement information management and construction. Colleges and universities can also introduce talents with professional library management knowledge reserve and management skills, especially managers of related majors, and use a salary system and reward mechanism to attract more professionals to participate in the digital management and construction of books and materials, adjust the talent composition system of the library management team, and change the
traditional library management model. According to the scientific management mode, the management and construction of the digital platform of books and materials are carried out. In addition, colleges and universities should strengthen the education of professional ethics, responsibility consciousness, and professional quality of library management personnel, improve the service consciousness and moral level of personnel, and enhance the management and construction quality of college library information platform.

4.3. Establishing an information management system to realize dynamic management of book resources

4.3.1. Implementing the information management mechanism to ensure the orderly development of all work

The establishment of the digital management system of university books and materials is the basis to ensure the orderly development of various works under the digital management system of the library and is also an important guarantee to standardize the management process of the digital management platform. Library managers should formulate corresponding management systems based on the equipment and update requirements for school books and materials and the requirements for the construction of China’s library digital platform. Library and material management personnel should carry out procurement, classification, sharing, borrowing, storage, etc., and comprehensive supervision of borrowing, collection, and other processes for teachers and students in colleges and universities. For example, in the procurement process management system of books and materials, library managers need to use the digital platform to understand the needs of teachers and students for books and materials, the main types of books searched by students, reasonably design the types and quantities of books to be purchased, attach importance to the procurement of digital books and materials, and strengthen the inspection of the standardization and correctness of the purchased books and materials, to ensure students are provided with good learning value of books and materials. For the process of borrowing books and materials, we can make use of good network coverage and data-sharing mechanisms, so that students can search and read books without time and place restrictions, and improve the utilization rate of books and materials. In order to ensure the efficiency and quality of the digital platform, it is necessary to strengthen management evaluation, timely adjustment of management programs and processes, and continuous improvement of management mode.

4.3.2. Strengthening security management to ensure the safe use and sharing of books and materials

Under the background of the Internet, in addition to providing resources and technology support for the digital management and construction of university books and materials, it also brings certain security risks, especially network security problems. Therefore, the information management system of university books and materials should also pay attention to its security management. University library management personnel should first ensure the safety of the digital system and platform of school books and materials, use the platform with good system support, and use the firewall, anti-virus software, intrusion detection system, etc., to equip the digital platform of the library with good network security technology protection; regularly carry out virus detection, software system detection, etc., to minimize malicious intrusion by hackers, criminals, etc., which will result in the tampering of students’ personal information and school books and materials. Administrators should also establish a sound security management system, make use of a rights management system, data encryption system, etc., and reasonably divide user rights levels to ensure that only personnel with appropriate access rights can manage books and materials. Students mainly collect and use books and materials, while administrators can update and share materials. Administrators should also develop a management system for the backup and
recovery of books and materials, use cloud computing, big data, etc., to store students’ personal information, books, and materials in a secure platform, and use the recovery system to ensure that in the event of data loss or damage, it can be restored in time to ensure data security. In addition, it is necessary to strengthen the security awareness education and guidance of library managers and students, improve their security awareness and security management capabilities, and reduce network security risks[15].

5. Conclusion

To sum up, university libraries should conform to the social background of continuous advancement in the Internet era and actively carry out the construction and management of digital book databases. However, because they are still in the exploratory stage, they should not only enjoy the development opportunities brought by Internet technology but also strengthen the analysis and response to challenges, especially from the basic perspectives of human resources, management mode, infrastructure, and so on; strengthen the improvement of these infrastructures to provide support for the digital management and construction of university books and materials. In the future, Internet technology will continue to be updated and developed, and the management of university libraries will be more intelligent in management, diversified in functions, and efficient in service. Library managers should establish a sense of innovation and creation and a sense of service, actively carry out practical exploration, introduce more advanced and professional technical equipment, and strengthen the optimization of management mode and personalized service to provide high-quality books and materials services for university teachers and students and the public, cope with the continuous reform of society, the continuous improvement of the reading needs of college teachers and students, etc., and promote the sustainable development of college libraries.

Disclosure statement

The author declares no conflict of interest.

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