

# Application of computer technology in library management of higher vocational colleges

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**Abstract:** With the development of computer technology, the library of higher vocational colleges is facing the reform. Providing personalized and intelligent service and optimizing user experience has become the mainstream trend of the development of higher vocational college library. Higher vocational college libraries need to strengthen the exploration of library information reform, with the help of computer technology, promote library database construction, intelligent management, to provide users with more accurate literature information services, for higher vocational college teaching and scientific research to provide information support. This paper explores the application of computer technology in the management of library in higher vocational colleges, analyzes some problems existing in the information construction of library in higher vocational colleges, and puts forward targeted reform measures, hoping to provide some useful references for the development of library management in higher vocational colleges.

**Key words:** computer technology; Higher vocational colleges; Library construction

Big data, Internet, Internet of Things, cloud computing and other information technologies are driving profound changes in the development of modern social life. Under the influence of information technology, all walks of life are developing in the direction of digitalization and intelligence. As an information service window organization, libraries must adapt to the development of science and technology and the changes of The Times, and must improve and innovate the service objects accordingly. With the development of information management mode under the background of information technology, the management of library in higher vocational colleges is constantly optimized and reformed.

## I. Some problems in the construction of library in higher vocational colleges

### 1. Lack of attention to library construction

The construction of library document resources is the top priority of library construction, which should be carried out based on the needs of teachers and students for literature resources. However, in the current work of library construction in higher vocational colleges, staff and students fail to participate fully and give the library the information it needs. As a result, there is a mismatch between the construction of library collection resources and data and the needs of users, resulting in the low utilization rate of library resources.

### 2. Lack of high-quality information management talents

Factors such as the aging of library infrastructure and the gradual imbalance of the structure of management talents have led to the decline of the quality of library management in higher vocational colleges. In the information age, the information construction of libraries needs high-level information talents, but many library staff in higher vocational colleges can keep up with the new knowledge system in time, because they are not directly responsible for teaching, scientific research and other work in peacetime, so the working atmosphere in the library is like a “nursing home”, lacking vitality and innovative spirit. Information service, scientific research service, capacity service “is the requirements of the library construction of higher vocational colleges in our country, but in the actual work, these requirements often become an” empty shell “, the lack of high-quality talents in the library restricts the process of library information reform.

### 3. The lack of information development planning

Due to the expansion of enrollment in higher vocational education, the scale of the library in higher vocational colleges is constantly expanding, and the contents of the work in the library are increasing and becoming more complicated. In the face of huge information resources and diversified reading needs of readers, libraries must build an information development plan. However, at present, the digitization and networking development of the library of higher vocational colleges in China is still in the initial stage, the service system and organizational structure of the library are not perfect, and the development degree of digitization and networking is relatively low.

## II. The use of big data to realize the library service innovation strategy

### 1. Establishment of library big data platform

In the information age, data resources are valuable resources for the development of all walks of life. The libraries of higher vocational colleges should also strengthen the construction of databases, dig data resources, and provide more abundant information for the development of libraries. First of all, the library of higher vocational college should build a big data platform in the library, record the searching and browsing information of readers, and form a reader database; Secondly, higher vocational colleges can strengthen cooperation with enterprises, big data companies and other libraries to realize regional resource sharing, coordinate big data access and sharing mechanism according to the principle of regional cooperation and integration of libraries and enterprises, and actively promote the cooperation alliance with the same industry and system. The construction of database breaks the problem of information island, establishes a unified big data resource catalog and data sharing system, and builds a complete big data technology chain, service chain and value chain.

Based on the library database, the library of higher vocational colleges can carry out data analysis, and then provide more accurate

literature information services. Vocational college libraries should analyze the borrowing frequency of resources in the library and readers' information preferences according to students' majors, research directions, borrowing history and other data, so as to push more targeted resources to readers. With the rapid development of "Internet +" and big data technology, the digital analysis work of the library can be implemented, and all kinds of documents and information resources in the library can be used more efficiently

Personalized service. With the popularization of Internet technology and big data, educational resources are becoming more and more abundant, and the addition and application of various new technologies enable students to obtain reading materials in time and study and communicate freely. Through big data, readers can be intelligently managed, secondary processing information and literature resources can be rationally and scientifically reorganized, and a large number of literature resources can be efficiently integrated, so that the intelligent integrated operation of information output, editing, classification, management and inquiry can achieve comprehensive, standardized and personalized consulting services and literature borrowing services. In the construction of library digital resources library at the same time, the library should strengthen the protection of readers' information, the construction of information security system, strictly prevent information leakage, harm the information security of readers.

#### 2. Develop online library platform

Under the information environment, libraries in higher vocational colleges should innovate their service methods. The library of higher vocational college should strengthen the construction of online library based on the service concept of "people-oriented". Through cloud computing technology to build "mobile library" and "independent library", to promote the library into the online. "Mobile library" enables students to log in the virtual library community to view the library resources in the community, shopping malls and families, which improves the convenience of library services and strengthens the utilization rate of library information resources. Vocational colleges can develop mobile library apps, seamlessly connect wechat and other platforms with the library information system, and establish mobile library platforms, so that students can obtain services such as book borrowing, bookshelf inquiry and popular recommendation through mobile web pages or wechat platforms. Libraries should speed up the development of intelligent data analysis systems, through which data analysis, predictive decision-making, semantic analysis and understanding internalization can be automatically carried out, so as to make library services more intelligent and readers' literature search more efficient and accurate.

Many colleges and universities are exploring the construction of the library's wechat mini program "cloud recommendation" system to push some personalized literature resources online for students.

At present, the library of higher vocational colleges is developing in the direction of information, intelligence and digitalization. In the process of information, it is necessary for the library to understand the students' demand for library resources and construction through interviews, symposiums and questionnaires, and make improvements to the library according to the current technology and financial situation. Through posters, lectures, manuals and other ways to publicize the digital library and smart library, so that students can understand the digital library. In order to meet the needs of teachers and students for "cloud" ecological resources, libraries should build intelligent and digital resource retrieval systems, so that students can make full use of digital resources in no time and space.

#### 3. Introduce the Internet of Things to build a smart library

It can be said that the Internet of Things has accelerated the arrival of the intelligent era, and the Internet of things has brought great convenience to modern social life. In library management and services, the Internet of Things can also play an important role. There are many books and materials in the library, so it is a very complicated and workload project to record them one by one, and to query and sort them out. It needs to consume a lot of manpower, material and financial resources. Not only that, but also a lot of time will be wasted and the efficiency of the staff will be greatly reduced. Based on the Internet of things, RFID technology to identify the book information, to achieve the automatic control and processing of RFID information, library intelligent light control system based on the Internet of things, face recognition access control system, etc., improve the accuracy rate of library management, improve the efficiency of library services. The automatic sorting control system is used to realize the automatic picking and placing of books, and the automatic classification and archiving of books are realized after the return of books. Eliminating the process of charging and degaussing, saving a lot of manpower, making the circulation of books more convenient and safe. The Internet of Things system carries out intelligent scanning of the book information, and when the unprocessed books are taken out of the library, the access control will send out an alarm signal, so that the sorting work is more labor-saving and the loss of book information is reduced. Through the configuration of the system, the management personnel can correct the deficiencies in the work in time, reduce the contradictions between readers and readers, so as to establish a harmonious book management model. At the same time, the Internet of things, RFID technology, etc., also facilitate the librarian to classify and find a variety of literature, which can significantly improve the work efficiency of the staff and reduce their work burden. In the future, the library intelligent temperature control system, intelligent lighting regulation technology will be further developed, according to the needs of the human body to create a comfortable reading environment for readers, but also to achieve green environmental protection, reduce energy consumption. Intelligent hardware facilities refer to the modern information technology and building organic combination, the combination of things, highly centralized control of the integrated computer network control system.

#### 4. Build a virtual reading environment

The use of virtual simulation technology to create a kind of immersive reading experience, so that people are completely immersed in it, which is also an important change brought by computer technology. In the virtual reading environment, users can use the network, Bluetooth and other technologies to browse the virtual scene, and locate the resources. Virtual reality technology provides a reader service model based on intelligence, which can meet the diversified needs of readers and enhance their dependence.

Virtual simulation technology captures the user's senses with a strong design, builds a "scene-like" reading space, and effectively interacts with readers, so that users can get a good emotional feeling in the process of experience and consumption. Users have personalized needs for reading, so in order for users to develop a good sense of experience, libraries need to meet the personalized needs of users and bring users a unique personal experience. For example, the "Cloud Reading" APP is set up in different sections, and users can click on text reading, video watching, audio reading, etc., according to their personal interests. The APP also has a daily "customized" reading service, where users can customize their own literature recommendation list, so that users can get a personalized experience on the APP.

## Epilogue

Library management and service work refers to the classification and sorting of literature materials and books to serve readers, facilitate readers to borrow and deep learning. Computer technology provides technical support for the development and reform of library management and service work, and can improve management work and service quality. However, the transformation work needs to undergo changes in all aspects, but the more efficient and accurate document information service brought by the transformation proves that the pain experienced by the transformation is worth it. In the wave of information technology, higher vocational colleges are actively exploring the library reform work, who grasps the information service work, who will occupy a more advantageous condition and position in the era of knowledge competition. In the future, the smart library, which takes readers as the center and provides intelligent and personalized services, will become the mainstream.

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