

# Research on the Utilization and Optimal Management of Electronic Information Resources in University Libraries

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**Abstract:** Through theoretical analysis, this paper expounds the value of strengthening the utilization of electronic information in university libraries and the reasons affecting the utilization rate of information resources in electronic libraries, so as to give better play to the role of university libraries and improve the utilization rate of electronic information in university libraries. In view of the existing problems, this paper puts forward measures to optimize the utilization rate of electronic information resources in university libraries and give full play to the role of electronic information resources, so as to promote information exchange and development.

**Keywords:** University library; Electronic information; Resource utilization

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## 1. Introduction

The university library is an important place for students to obtain information. With the improvement of information technology and digitization, university libraries have developed from traditional paper libraries to digitization and electronization. With their improvement in electronic information technology, the convenience of information exchange has increased significantly. Students can also make better use of electronic information resources and build a self-awareness system. However, there are still some problems in the development of the utilization of information resources in university libraries, and there are still several limitations in the safety and rational utilization of electronic information resources in university libraries. How to achieve a breakthrough in the constraints of the utilization of electronic information in university libraries and abate the defects in the utilization of electronic information resources in university libraries is an issue that requires attention in the development of information technology in university libraries.

## 2. Role of university libraries in the development and utilization of electronic resources

### 2.1. Assist libraries in adapting to the new nature of information retrieval in the network era

With the advent of the internet era, the public's awareness of information resources has improved. On the one hand, the acquisition scope of various short video platforms, social media, and other information resources has been expanding, but on the other hand, it is tied to people's usage patterns. The development of electronic information in libraries and the change of reading methods require libraries to gradually adapt to the new information environment. Generally speaking, in the new era of economic development and fast

changing lives, people are more interested in reading electronic information in a short period of time, including news, entertainment activities, or literary journals <sup>[1]</sup>. In this case, people have gradually developed the habit of reading and remembering at any moment. This serves as a reminder to libraries to consider the four characteristics of students while developing and utilizing electronic information resources. They should not put additional pressure on students to read or search for information resources. From the perspective of the traditional way of reading, the bookshelf has value in the traditional way of reading resources <sup>[2]</sup>. Compared with network resources, physical book resources still have clear benefits. Therefore, in order to develop electronic information resources, libraries must also analyze the advantages of electronic information resources as well as optimize and integrate their electronic information resources based on information retrieval characteristics in the network era with the actual qualities of the school's specialization.

## **2.2. Provide access to resources for all teachers and students**

The advantage of the development and utilization of electronic information resources lies not only in convenience, but also in the content. Students or other borrowers can acquire more learning channels through electronic information resources in libraries, so as to save time. People can even explore the value of their learning resources to some extent, while saving time. In the internet era, the use of electronic information resources in libraries has heightened, and students have more opportunities to gain knowledge. However, learning resources can be found everywhere on the network; hence, the difficulty in distinguishing between true and false arises, with some highly sensitive information <sup>[3]</sup>. In some sensitive occasions, the official platform will mask some keywords to protect against false information; however, the effect is subtle. Compared with hybrid network resources, electronic information resources in university libraries have higher reliability. Some electronic information resources are only added to the electronic information resources system after strict review. The requirements for subsequent screening and evaluation are also relatively high. This provides a broader and more effective way for students to read electronic information resources as well as allows schools to manage these resources more effectively. For the sake of campus resource security, colleges and universities tend to tighten the restrictions on login ID. Some libraries only allow users to log in when they are connected to the campus network, but this is not the case for all. The security restrictions of schools affect the students' experience of using electronic resources to a great extent.

## **2.3. Highlight the academic value of electronic information resources in libraries**

When university students borrow electronic information resources from libraries, they often have very distinct purpose, such as for completing their assigned homework, preparing for school competitions, and so on. From the perspective of the academic value of electronic information resources, universities should provide cutting-edge academic research papers through the development and utilization of electronic information resources and network platform, so that students can read and learn from them <sup>[4]</sup>. Students can improve the quality of these electronic information resources and highlight the academic value of electronic information resources by creating an internal map. When studying these electronic information resources, students should focus more on the creation and innovation of literary resources, such as journals and papers, under the guidance of teachers, so as to gain new and valuable academic research perspectives. In view of their cognitive capabilities and the accumulation of life experiences, students may not be able to effectively understand some information from these resources, but under repeated action over a period of time, students will come to understand the theoretical or literary nature of learning. Understanding and developing good thinking and cognitive habits are extremely important for future studies and life itself.

### **3. Reasons for the lack of effective utilization of electronic information resources in university libraries**

The main reasons for the lack of effective utilization of information resources today include poor public relations, strong network dependence, slow update speed, weak search function, weak consulting service ability, etc. <sup>[5-10]</sup>. A higher resource utilization rate is required for information development, but there are still many issues in the current utilization of information resources in university libraries.

#### **3.1. Lack of publicity**

At present, the major libraries in universities often perform their respective functions, and they generally lack effective coordination and cooperation. At present, they have poor public relations, and essential individuals are not given proper training. As a result, people are unable to fully comprehend the importance of electronic information resources to the development of libraries, the contents and methods of information education in most university libraries are outdated, and readers lack sufficient understanding of the contents of electronic information resources <sup>[11]</sup>. The lack of clarity about the types and functions of information resources in libraries hinders the development of readers' interest and academic research. Libraries seldom conduct courses on the use of electronic information resources; in addition, the public relations service that assists people in understanding, selecting, and using electronic information resources is lacking.

#### **3.2. Strong network dependence**

At present, the utilization of electronic information resources is affected and limited by the network environment, computer, and hardware facilities. Among them, information query and information retrieval often involve a large amount of information. Channel congestion may occur and the query effect will be affected if the network bandwidth is insufficient <sup>[12]</sup>. In addition, for colleges and universities that do not have sufficient network coverage over the whole campus, especially non-colleges and universities, scientific research places, and campuses, the inability to connect to the campus network will directly affect the use of electronic information resources. The efficiency of their utilization is facing a serious impact; hence, special attention should be paid to universities.

#### **3.3. Slow update speed and weak search function**

For current electronic information resources, various search methods have been designed to meet the needs of readers. In some cases, simple language is used to realize simple and intelligent search, but readers still need to have an in-depth understanding of electronic information and the use of the information resource retrieval system. At present, the update speed of various electronic information resources is slow, and the search methods are not integrated. Most readers tend to struggle since they do not fully understand all search interfaces and search functions <sup>[13]</sup>. It is one of the major variables influencing the research on electronic resources in colleges and universities.

### **4. Ways to optimize the utilization of electronic resources in university libraries**

#### **4.1. Develop information promotion channels for electronic libraries**

Various new media are constantly emerging, and the promotion of electronic resources cannot be restricted to the scope of libraries. While maintaining the traditional public relations platform of libraries, the learning environment and venue of universities can be used to hold announcements, hang posters, and conduct lectures, while carrying out online courses to enhance students' understanding of electronic resources. It is important to attract students' attention and interest as well as guide them to deeply realize that they are huge potential users of electronic resources <sup>[14-16]</sup>. At the same time, offline publicity and promotion can be carried out in the form of exquisite user manuals and publicity manuals. In addition, qualified colleges and

universities should begin offering elective courses related to literature retrieval to provide students with comprehensive and systematic electronic resource education.

#### **4.2. Strengthen the training and management of university library managers in information technology**

University libraries are in charge of upgrading and transforming electronic services. In the process of digital transformation and intelligent transformation, there is a need to train and improve the service content as traditional library managers are not able to adapt to the new service management mode. The management of library personnel can be carried out in the following ways: first, recruit more staff who can adapt to intelligent library services, conduct necessary operation training for staff before taking office, and encourage each staff to improve and upgrade their skills by means of lectures or further studies, so as to meet the needs of electronic upgrading and transformation of university libraries as well as to be able to use relevant intelligent library equipment, so that when any equipment fails, it can be solved independently; second, strengthen the improvement of their own skills; in addition to training new recruits, it is necessary to strengthen the training of existing staff in order to help them enhance their skills; library staff should master a certain foreign language level and basic knowledge as well as to be able to provide users with timely and rapid solutions when encountering problems, so as to meet the diversified service objects and service types of libraries<sup>[17]</sup>; third, library managers and leaders need to strengthen their sense of progress with the times and their understanding of the requirements for the electronic development direction of university libraries, closely follow the pace of the transformation and upgrading of library services, strengthen their own management ability, improve their competitiveness in the library industry, and give full play to their own values and advantages.

#### **4.3. Strengthen the service form of electronic libraries**

The electronic library is a library service space built based on the world's advanced and emerging technologies, including big data and intelligent technology. The main characteristics of the electronic library service is that it realizes intelligent service to a great extent, liberates people's hands, and reduces the investment in human resources. At the same time, on the basis of meeting the reading needs of different types of users, it also provides users with more targeted service methods and search methods based on their preferences. The service types of electronic libraries are not only guided by manual services, but also provide users with means of human-computer interaction and intelligent voice interaction, allowing people to select their own reading methods based on voice prompts<sup>[18,19]</sup>.

#### **4.4. Strengthen the interaction of electronic information resources**

The design of interactive function is one of the most needed functions in electronic libraries. The use of interactive function can enhance users' interest in reading. The library is one of the important places for knowledge transmission, dissemination, and preservation of information interaction. In order to promote the interactive function, users must express their satisfaction toward the library services and whether the custody of electronic information resources is secure on the interactive platform. The interactive function helps improve interpersonal communication and knowledge distribution. Through password strengthening using interactive kinetic energy, it may also promote the development of electronic library resources, so as to further strengthen the utilization of electronic information resources in university libraries<sup>[20]</sup>.

### **5. Conclusion**

In conclusion, there are still some shortcomings in the utilization of electronic information resources in university libraries, such as the lack of publicity, strong network dependence, slow update speed, and weak

search function. In order to improve the utilization rate of electronic information resources, university libraries need to explore and innovate their electronic information promotion channels from the perspective of construction, publicity, and management, improve the interactive function and service form of electronic libraries, strengthen the training of electronic library managers, enhance the information level of personnel, as well as give better play to the role and value of electronic information resources in university libraries.

### **Disclosure statement**

The authors declare no conflict of interest.

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