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Analysis and study on university library database system

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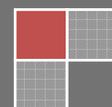
ABSTRACT

The establishment of university library database system exerts positive effect both on university students' retrieval of document information content and their academic researches. In the process of the research, this paper firstly studies the influence of library external environment exerted on China's higher education, and deeply analyzes the positive and negative effect by external environment on the establishment and application of library databases system. Thus find out the relationship among library database, external conditions and higher education.

Secondly, this paper does a specific study on the current situation of the building of characteristic university library database. Based on the basic conditions of the building of university library database in Henan province, specific building direction of the databases has been made out. Finally, this paper makes a concrete analysis in accordance with the new requirement of the building of the new generation university library database. During the analysis process, deep discussion about the creation ideas has been held so as to show its effect on higher education in China in a more specific way. It is the main thought of this paper. Besides, it also shows the specific target and content of this paper.

KEYWORDS

University library; Database system; Higher education; Effect study.



INTRODUCTION

From the perspective of development, the development of university library database system reflects the basic situation of higher education in China. However, considering that traditional building of university library database system could not satisfy the needs of the development of modern education, further improvement in the construction idea of university library database system could be the way to help the realization of a better and faster development of China's higher education. This study combines the analysis of library environment with the analysis of library information service and the current building situation of characteristic university library. I hope it can lay theoretical foundation for further studies.

DATA ANALYSIS OF LIBRARY ENVIRONMENT

As one of the key factors determines university students' effective study on databases system, university library environment is also an external influential factor on higher education in China. In the study process of this part, further research on the effect exerted by library environment on the application of database system is carried out through the design of three interrelated questions. Thus identify the specific relationship between library database system and library environment. (Shown in TABLE 1).

TABLE 1 : Satisfaction survey on library environment, facilities and equipments

	satisfied	Satisfaction Degree	Satisfaction Degree in 2007
Are you Satisfied with the library environment and reading environment (quiet, neat, cozy and bright)?	324	75%	99%
Is it easy for you to find the service Location (location introduction, signs, readers notice) ?	309	72%	89%
Are you satisfied with the computer query and network equipments in the library?	237	55%	79%

The table shows that the satisfaction degree is high. Thus, students' enthusiasm for using the database system will be improved gradually^[1]. A safe and cozy environment could provide the application of library database system with an effective basis. It could improve the building of the database system and finally helps the development of higher education as a whole.

ANALYSIS OF SURVEY ON SATISFACTION OF LIBRARY INFORMATION SERVICE

As an important evaluation indicator of library soft power, library information service is also a significant component of the building of database system. Survey on library information service was carried out to show the effect exerted by university database system on China's higher education. 7 questions were applied in the survey. See TABLE 2.

TABLE 2 : Survey on satisfaction of library information service

	Satisfied	Satisfaction Degree	Satisfaction Degree in 2007
Opening Hours	366	85%	71%
Directory Inquiry	315	72%	80%
Lending Manual and Efficiency	384	89%	81%
Consulting	325	75%	79%
Staff Service Attitude	346	80%	86%
Staff Professionalism	322	75%	85%
Reader Complain Channels	241	56%	68%

The Table shows that the satisfaction degree is getting higher year after year. On the one hand, university students could effectively search information in the library and find out detailed resource information. On the other hand, the construction of library information service system could help improve the efficiency of the using of resource collections and relative academic resources in the library, and thus helps greatly to improve students' professional competence and relative skills^[2]. Databases system plays the role to gather statistics which could help students understand more about the supporting degree of their academic study. It provides university students with a wider platform to improve their professional abilities. The table shows that students are satisfied with the information service in library. The satisfaction degree is becoming higher

year after year. It fully reflects the positive effect that databases system has on China's higher education. It also helps to improve the construction of library information system so as to help to improve higher education in China.

CURRENT SITUATION OF THE CONSTRUCTION OF CHARACTERISTIC UNIVERSITY LIBRARY DATABASE

From the perspective of the development of library, the construction of modern library is the combination of computer technology and the practical application functions of library. It shows the important role database played in the scale of library development. The key of database construction lies in the effective searching for the documentary retrieval with the application of computer technology. It provides a powerful support for the using of documentary retrieval, and finally exerts important influence on documentary retrieval in university. In the current situation, university databases and the construction of documentary retrieval system are closely related with the relationship among different data, thus helps to score remarkable achievement in both data written language and the design of database users' interfaces. In this way, the security of university databases system is guaranteed. Its influence and effectiveness have been improved a lot. Further study and research should be carried out considering the fact that traditional technology of building university databases system can not satisfy the needs of the development of the information age^[3]. Study in this part taking universities in Henan Province as examples to explore effective way in the construction of databases system, and thus reveal its influence on higher education in China.

Effective establishment of library characteristic database

Only a few universities own the characteristic database in certain academic area. Given that fact, the features of the databases can be fully demonstrated. Taking the databases of Lepidoptera specimens in Jiamusi University as an example, the specimens are collected from local area of Jiamusi. Documentations are formed through the study by experts in the university. It thus provides more support for academic professional. In this way, the establishment of characteristic library database can fill the vacancy in some discipline, and finally effects higher education in a comprehensive way.

The establishment of scientific featured database

Scientific featured database is a unique resource library formed through the focused study on key research subject and related disciplines, such as aerospace and satellite technology database in Harbin Institute of Technology. This database holds the uniqueness in certain disciplines that can not be found in other universities, and thus formed a strong theoretic support for its own major. It could also fully reveal the distinctive discipline theoretic value.

The establishment of geographical featured database

Geographical featured database shows that the study and research of a university is limited in certain geographical area, and can not be carried out in other places, such as the red-crowned crane research database of Qiqihar University^[4]. Academic study of this kind is scientific and helps a lot in promoting the scientific development of higher education.

The establishment of other special databases

This kind of database is established in accordance with different specific requirement of university students. The construction of the database is well targeted, such as the characteristic library special database in Luoyang Normal University. It collected relevant special documentation on teachers training and education, and thus guaranteed academic activities of university scholars.

Besides, relevant papers and library data catalogue have become important components of university library databases construction, thus guaranteed the carrying out of academic activities.

Firstly, CALIS special database, as the navigation database of the future development of higher education in China, its establishment is the collection and collation of uniqueness of higher education in China. It plays a significant role in the process of the establishment of university information resource platform. It has effectively introduced the sub database system in accordance with features of higher education in different regions. Secondly, by including foreign documentation of relevant disciplines, it has laid a solid foundation for the study of the characteristic of the same kind of disciplines in China. It could also complement the study in accordance with the current discipline study situation in China, thus gradually improve the databases. After the effective introduction of the sub database system, effective establishment of the retrieval system and service platform should be realized so as to gradually meet the requirements of the establishment of the databases system and finally exert more positive influence on higher education. Thirdly, further study should be carried out on the management of databases. Collective development scale should be formed through the combination of sub databases features so as to reach humane standards. Thematic library will be formed gradually through the development of special database sub project, thus enhance the application value and academic value of databases system and finally promote the development of university featured disciplines^[5]. Finally, effectively build the sub project of the discipline navigation database. Based on this, its sphere of action and the academic study area will be expanded. In this way, the positive effect of academic resources on university library can be enhanced, and the study value of the application of library databases system could be improved, thus exerts positive effects on the development of higher education.

SURVEY AND ANALYSIS ON DOCUMENT RECOURSES

Information resources and quantity of documentation determine whether university academic study could realize breakthroughs and whether it could promote the development of academic studies. The building of databases system is of vital importance to the application value of information resources and documentations. Four questions were used in the following satisfaction survey on different universities library documents and information resources. TABLE 3 shows the detailed results of the survey.

TABLE 3 : Satisfaction degree on university library documents and information resources

	Satisfied	Satisfaction Degree	Satisfaction Degree in 2007
Books and Reference Materials in Library	278	64%	81%
Periodicals and Newspapers	282	65%	82%
Electronic Literature	296	69%	87%
Library Website and Other information	303	70%	

System reflects the academic level of studies. Since the library document resources and information resources together formed the important prerequisite of the establishment of databases system, the result is anything but optimistic.

TABLE 3 shows that the satisfaction degree (all below 70%) on the whole is not high. There must be some deficiencies in the building of database system. The reason for this phenomenon is that many universities do not attach great importance to the comprehensive collection of discipline documents. This leads to different problems which will hamper the effective establishment of the databases system during the process of university students' retrieval. It will exert potential negative effects on the development of higher education in China to some extent, thus limiting the education resources and studies in certain academic area^[6]. The establishment of university library System reflects the academic level of studies. Since the library document resources and information resources together formed the important prerequisite of the establishment of databases system, the result is anything but optimistic.

A NEW GENERATION OF LIBRARY DATABASE SYSTEM

Effective acquirement of knowledge information from database is the core of construction idea of contemporary university library database system. It enables the acquirement of hidden information in database ahead of time. In the construction of contemporary university database system, information process and document searching are irreplaceable in the effective using of library document and relevant information. However, from the perspective of library science, the increasingly interrelated relationship among different disciplines has hindered the document retrieval process and information sorting to some extent. Thus putting forward higher requirements on the construction of library database system since traditional construction idea can no longer satisfy the practical needs of university development. Generally speaking, the more data we hold in the building of university library database system, the more effective it will exert on data retrieval, making the application of data more efficiency. However, in the process of carrying out it, traditional database system building has not form the standard of large data storage, leading to saturation storage state of information data and documents. Affected by this, problems that will impede the building of university library database system arise in system operation. KDD construction idea could avoid the current state and problems, improving the management and application ability in database system. It makes knowledge discovery more efficient. Figure 1 fully explains the building ease of university library database system.

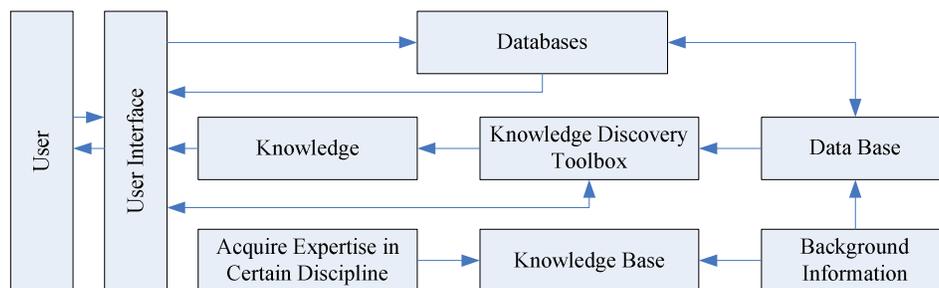


Figure 1 : Knowledge discovery block diagram of library database system

Steps in Figure 1 shows that, library database system is the right system where the effective construction of thematic repository happens. The process works like this. First, collect information in accordance with views from relative experts. Then storage information in knowledge base in formal rules^[7]. Knowledge process and discovery of information resources

and documents in knowledge base will be more efficient with the help of the complementary tools. Thus express the relationship between levels of academic information and other information in a clearer way. This enables students retrieve document in a more visual way, and analyze the needed document deeply in accordance with the features of data in the databases. Students' academic ability can thus be improved, and at the same time, supplement by database system to document and information data can be timely and effective.

CONCLUSION

The above content reveals the whole study of me on the effect university database system has on higher education in China. Current situation of university database system construction and the construction of a new generation of library database system are the two study aspects. All this shows the effect university database system has exerted on higher education in China. At the same time, the study also reveals my research idea and the reasonable scientific study process.

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