

# Study On The Construction Of University Library Information Commons In Network Environment

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**Abstract.** Library 3.0 is a new concept about improving the traditional library's service. The study of Information Commons in library 3.0 environment has lots of meaning, which make the library service theory transfer from "resource or technology is central" to "the user is central". This is the trend of library's service transformation in the future.

## Introduction

Information sharing space emerged as a new-type service model among US university libraries in the early 1990s along with changes of computer techniques, multimedia techniques, network techniques and ways how people learned and received information as well as teaching reform. After more than one decade of development, information sharing space has become a dominant service mode enjoying great popularity among the US university libraries. The wide applications of information sharing space are thought-provoking to China's counterparts. Nowadays, to build information sharing space has become a trend for libraries to improve their service quality. Therefore, this paper analyzes and explores the information sharing space model for libraries in the hope of providing references for applications of information sharing space among Chinese libraries.

## Characteristics of information sharing space

The current society has embarked on an era of knowledge economy and information network. While to university libraries, they have entered an information sharing space thanks to development of computer techniques, multimedia techniques, network techniques and modern communications techniques. The information sharing space featuring the user-oriented learning environment emphasizes more on coordination, cooperation, research and sharing. Known as a specially-designed one-stop service center and collaborative learning environment, information sharing space is also a knowledge base with easy access to Internet, all-purpose computer software and hardware facilities and rich content (including the printing, digitalized and multimedia information resources). Its one-stop services, including learning, discussion and research, rely on the joint support of skilled library consultants, computer experts, multimedia professionals and supervisors. It can cultivate readers' information qualities and promote their learning, communication, cooperation and research.

## Core concept and objectives of information sharing space building

The concept of information sharing space can be boiled down into two aspects, namely "user orientation" and "one-stop integrated service environment." Apart from organizing librarians to study information sharing space theories, information sharing space personnel shall conduct field investigation of information sharing space models abroad. In this way, they can experience information sharing space service in person, broaden their vision, update and deepen their knowledge of information sharing space. To build information sharing space is also a response to development of higher education, science and technology, information globalization and diversification of user demands.

Building of the information sharing space has three objectives. The first objective is to provide one-stop personalized services, and allow users to freely choose and use hardware facilities, software resources, multimedia and network information resources. The second objective is to enable users to get various forms of help and consulting services from librarians, computer experts and multimedia professionals, and study under their guidance. The third objective is to emphasize on concentrated learning or research, and creating a favorable learning, research, consulting and cooperation space for users.

## **Significance of building information sharing space for university libraries**

Improve the resource utilization and integration efficiency of university libraries

The key to full play of a university library's role lies in overall improvement of its resource utilization rate and service techniques. The resource utilization rate of traditional Chinese university libraries is low, and the overall service level has greatly limited the guiding role of libraries in public reading. Information sharing space is oriented towards reader demands, through which a library's resources can be fully demonstrated and meet dynamic demands as well. To build a complete information sharing space calls for efficient coordination of multiple departments within the library, improvement of professional service techniques and integration of current services, techniques and resources of the current libraries in a higher layer.

Demonstrate the core position and value of readers during the building of university libraries

Major beneficiaries of university libraries are university students and teachers. How to increase the appeal of library resources, highlight the significance of library building and build libraries into places for university students and teachers to improve their cultural qualities—all these are of great concerns. The building of information sharing space requires adherence to the design principle of proceeding from readers' core position and value to build libraries into places where teachers and students share their ideas. As an active information and knowledge acquisition channel, libraries aim at developing readers' active exploration spirit and transforming themselves into vigorous carriers for university students' information acquisition and comprehensive quality cultivation.

## **Research into information sharing space building**

Build a personalized retrieval platform

Based on the user preference information processing technique and Web3.0, the computer can analyze, collect and dig user demands and characteristics on the one hand; on the other hand, user information can be compared, selected and evaluated. Through intelligent analysis, processing and filtration of retrieval results, adjustment of retrieval results and ranking, and interaction between users and resources, the personalized and intelligent retrieval can be realized in a real sense. The personalized and intelligent retrieval platform based on Web3.0 allows users to retrieve in the natural language according to their demands. Through the threefold memorizer of RDF, Web3.0 can quickly build an ontology connection among the online content, that is, to turn the whole network into a complex ontology base. Through the dynamic content searching engine, the resource content can be dug in a more in-depth way. Based on user preferences and characteristics, the retrieval results most suitable to users can be found out.

Innovate the reference and consulting services

The information sharing space under the Web3.0 environment can provide more complete virtual reference and consulting services for users mainly in the following aspects. First, stimulate users' activity. Under the Web3.0 environment, users can be both inquirers and consultants. Experts and scholars among users can share their knowledge, experiences and questions with others through Tag, Folksonomy, RSS, Social Bookmarking, Wiki, SNS, IM, Ajax, P2P and other techniques, and can supplement and give feedbacks to referential consulting results provided by libraries. Second,

guarantee quality of consulting content. Through efficient filtration and integration of virtual referential consulting results and UGC, Web3.0 can significantly increase accuracy of information description. Besides, based on information integration and migration, concentrated validation and classified storage of the information platform can further guarantee quality of the virtual referential consulting content. Third, realize combined referential consulting. Web3.0 can provide a favorable platform for the IC joint referential consulting. The joint referential consulting relies on corresponding network techniques, such as the remote literature transmission, the software compatibility and the unity of opening standards. Without limits of time and space, resources can be integrated and shared among libraries, thus promoting efficient utilization of resources. Besides, based on a higher level of RSS applications, personalized information consulting and recommending services can be provided.

#### Create a personal library portal

Relying on the technical support of Web3.0, libraries can provide intelligent filtration based on different user demands. The user interest model can be built and the accurate user classification can help provide personalized information services. Based on users' interest, hobby and learning characteristics and their academic background, users can obtain their required information from the IC resource library. According to personal reading preferences, users can customize the Widget modules. Through analysis of the user retrieval history already saved, the computer can efficiently grab, analyze and gather information catering to users' interest. Besides, users can achieve information integration of multiple websites through the Web3.0 integration technique. All in all, under the Web3.0 environment, users can obtain more personalized and efficient information services through building of the individual library portal.

#### Offer mobile library services

Various communication terminals are compatible in Web3.0. Users can get access to the Internet through PC, WAP, PAD, STB and other intelligent terminals. The integration of Web3.0 technique with Internet and communication services enables user groups of various terminals to have easy access to various library services, such as personalized and intelligent information retrieval services, referential consulting and information customization, information recommending, and other services. Besides, based on Ajax of Web3.0 and the augmented reality technique, users can experience information and virtual space through various mobile terminals in the 3D demonstration form, thus greatly improving user experiences.

## Conclusions

Building of information sharing space is still new in China. It is substantially different from traditional library service modes in terms of service concepts, service content, service systems, service modes and management modes. Information sharing space, a fast-developing dynamic service system, is an important opportunity to increase efficient utilization of library resources, enhance competitiveness of libraries' core business and improve teaching level and subject construction of universities.

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