

# Study on the Construction and Service Approaches of the Wisdom Library of Wenzhou Vocational and Technical College

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## Abstract

From the perspective of research history of wisdom library research in China started in 2000 after the earliest of intelligence library, such as yan-li li, chun-jie liu of the intelligent library of structured cabling system, the intelligent library by zhang jie, they discussed mainly from the perspective of architecture and technology library system implementation, the application of RFID in the library of the study, one-stop services, mobile services, etc. With the emergence of smart earth, smart city and other terms, smart library comes into being.

## Keywords

Intelligent library; Build; service.

## 1. Research Background

Since the beginning of the 21st century, information technology has penetrated into all aspects of economic development and social life. In the face of increasingly fierce competition in comprehensive national strength, countries all over the world have paid close attention to and attached great importance to the role of education informatization in improving national quality and enhancing national innovation capacity. Premier li keqiang first proposed the "Internet 10" action plan when he delivered the government work report at the third session of the 12th National People's Congress on March 5, 2015. "Internet + library" as part of the many "Internet +" industry practice, its connotation is not a simple combination, but intelligent means such as the use of information communication technology and the Internet platform, industry of traditional library depth fusion, break through the bottleneck of the development of industry, the formation of intelligence library, new forms and new patterns, thus promote the industry's innovation, transformation and ascension.

## 2. The Research Content of Smart Library Can Be Divided Into the Following Four Aspects

### 2.1. Concept and Characteristics of Smart Library

YanDong (2010) argue that wisdom library = + Internet of things, cloud computing + intelligent equipment, it in a more wise way, through the use of a new generation of information technology changes to the system users and the library information resources interact with each other, in order to improve the clarity, flexibility, and response speed of interaction, so as to realize intelligence service and management mode of library; Ruan mengyu (2011) believes that smart library is a new type of library developed on the basis of Internet of things and inheriting digital library. It has the characteristics of Internet of things and digital library. Wang shiwei (2012) believes that smart library is based on digital, networked and intelligent information technology, characterized by interconnection, efficiency and convenience, and pursuing green development and digital benefits for the people, which is the concept and practice of scientific development of modern library.

## **2.2. Elements of Smart Library Grace (2012) Argues That Wisdom Library of Components Including the Internet of Things Technology**

The intelligent facilities, the intelligence service, the building can be divided into three levels: substance level, technology level and service level, the material is the foundation, technology level is the key, and the most can reflect the core value of library is the service level and service level, the three are all supporting each other, the building of supporting wisdom library together; Chen jin (2012), library director of Shanghai jiaotong university, believes that resources, service, technology, librarians and readers are the five elements of building a smart library.

## **2.3. Research on Key Technologies of Smart Library**

"Libraries are living organisms," says ruan ganazan, the father of library science in India. Technology is the key to the development of library, and the development of intelligent library is inseparable from the research and development of its key technology. Chen Lin (2017) found that the Internet of things, RFID technology, cloud computing, digital library and other key technologies in the research and practice of smart library by searching and measuring the literature themed smart library from 2010 to 2017. Scholars such as han li (2012), huang li (2011), wang haiyan (2012) and huang hui (2014) discussed the application of iot technology in the construction and development of smart library from the aspects of working principle, architecture mode and case analysis. Scholars such as Chen jiayi (2013), shen quilin (2016) and ni jiayi (2017) analyzed the practical application of smart library from the perspectives of book inventory, intelligent reservation, self-borrowing and returning, intelligent robot and so on.

## **2.4. Research on Smart Library Service Mode**

In the article "the construction of smart library and its service mode", uhn (2012) proposed to build a smart service platform of library. Relying on the three principles of service orientation, resource integration and people-oriented, the platform realizes the connection between books, people and people, and provides users with intelligent services. Zhao xiaofang (2012) proposed two aspects of smart library services: people-oriented internal management, equal emphasis on technology and humanities, user-centered external service, multi-space and multi-time service; On the basis of predecessors, Chen yuan and xu liang (2015) proposed a collaborative and interworking mechanism that integrates the needs of users, intelligent venue layer, intelligent perception layer, ubiquitous network layer, big data processing layer, intelligent application service layer and other six levels to avoid the emergence of information island in the construction of intelligent library.

Through these studies, it can be found that the development of smart library in China is getting better and better, and has a profound impact on the service scope and efficiency of library. As a high-quality vocational college in zhejiang province, it is necessary for our college to integrate the construction of smart library into the overall layout of smart campus, so as to promote the development of teaching, scientific research, student quality and other aspects.

## **3. Construction Analysis**

### **3.1. Concept Analysis of Smart Library**

This paper distinguishes the concepts of intelligent library, intelligent library, digital library and mobile library, clarifies their internal relations and differences, and deeply understands the necessity and background of the concept, development and evolution of intelligent library.

### **3.2. Construction Process of Intelligent Library of Vocational Colleges in Zhejiang Province**

Through the network consultancy, field survey and telephone interview, understand the construction of the library of higher vocational colleges of zhejiang province wisdom process, the key to understand its construction idea, main tasks, system architecture, connectivity and wisdom campus, as well as the problems and bottlenecks encountered in the construction process, through the analysis of classification, to provide early material for the wisdom of our hospital library construction, construction of the foundation.

### **3.3. Smart Library Construction Plan of Our College**

According to the wisdom of research on the construction of the library in vocational schools, coordination and consultation with wisdom library software vendors to determine the construction ideas, construction key points of the technology involved in the content and construction, the formation of the wisdom of wenzhou vocational & technical college library construction scheme, for the subsequent library construction to provide guidance and basis for wisdom.

## **4. Research**

### **4.1. Lead the Team to Conduct Field Inspection**

(1) to study and draw lessons from brother wisdom of colleges and universities library construction in zhejiang province of advanced experience, January 9-11, 2018, in the jinhua professional technology institute, ningbo vocational and technical college, zhejiang industry and commerce vocational and technical college, zhejiang financial vocational and technical college, zhejiang tourism vocational and technical college, the school library to learn, focus on the wisdom of the college library construction. Through examination and understanding, I have a preliminary understanding of the construction of the intelligent library of vocational colleges in our province. At present, the construction of various schools is also progressing in an orderly way, but at present, a good effect has not been formed.

(2) before and after deciding to apply for this project, the project led the team to visit the library of wenzhou university and the library of wenzhou vocational and technical college of science and technology on the intelligent library construction technology part of the intelligent library, and learned about the situation of intelligent equipment from brother universities.

### **4.2. Actively Collect Data**

(1) collected in zhejiang province library association (zhejiang graphics hair [2017] no. 30) on November 9-10, 2017 in huzhou normal college library, the library of zhejiang, jiangsu provinces wisdom seminar on new technology application and the information about the meeting for discussion, artificial intelligence, cloud, big data, a new generation of library automation system and other new technology, new mode of discussion.

(2) collected BBS articles on the history of research wisdom library of chongqing university library.

### **4.3. Participate in Academic Discussions**

(1) to participate in the library society of China higher vocational college library branch (Chinese word [2018] no. 8) on May 9-12, 2018 held in hefei BBS development of Chinese higher vocational college library, the meeting topics is the transformation of library and change, higher vocational college library, and method of library, intelligence service and intelligence, and so on, to learn all the national higher vocational college library communication construction experience at the meeting, experts report, curator of the BBS, etc., and collect the related conference theme to discuss the report more than 40.

(2) participated in the "2018 zhejiang university library director working conference and intelligent library development BBS" held by the library of ningbo university from May 24 to 25, 2018 at the library of zhejiang university (zhejiang gaotumizi [2018]3)

#### **4.4. Presided Over the Construction of the School's Intelligent Library**

(1) according to the overall arrangement of the smart campus construction of the college and the actual situation of funds, the three-year plan for the construction of the smart campus of the college is proposed in a standardized way, mainly including the procurement of smart equipment and the architecture of the basic software platform.

(2) presided over the construction of basic intelligent facilities of the smart library. From April to May 2018, two automatic book borrowing and returning systems, two face recognition systems and two automatic recognition and alarm systems were installed.

(3) at the end of 2017, preside over the preliminary acceptance of the groin book management system of our hospital, and put forward the concrete realization of the intelligent service of the intelligent library.

#### **Advantage analysis**

Regularly hold a meeting of all researchers, organize group members to conduct research discussion and assign research tasks on this topic, and timely report the research results at the current stage.

The main researcher has been rooted in the front line of the library for a long time. He/she has a good understanding of the current situation of the university library and the situation of the off-campus library and has a strong interest in the subject research. The research group has established a good mechanism of project action, a relatively strict project research plan, regular and fixed scientific research activities, responsibility to people, the implementation of regular experience exchange system, the project activities have made specific arrangements.

#### **4.5. Scientific Research Conditions**

Our school as a national demonstration vocational college, the information technology in hardware, or software, has laid a solid foundation for research: school modern teaching facilities, have a first-class library, the rich network resources, all of these make we can very easily to see China hownet, ten thousand, VIP, longyuan journals such as the forefront of academic papers, for the information of our research provide a rich reserves, this to finish this topic provides a strong guarantee of software and hardware.

### **5. Intelligent Library Collaborative Innovation Alliance**

On November 23, 2018, the "intelligent library collaborative innovation alliance working conference", sponsored by the library of chongqing university and co-organized by wip information, was grandly held in the conference hall of huxi library of chongqing university. 120 participants from 72 universities and public libraries across the country attended the inaugural meeting of the first "smart library" builders' alliance in China. At the conference, lanzhou university of finance and economics, as one of the 29 formal partners, jointly participated in and initiated the establishment of the Union of Smart Library Collaborative Innovation (SLU) with the purpose of "Collaborative Innovation and Shared development". The founding ceremony of the alliance was presided over by peng xiaodong, library secretary of chongqing university. Professor tian zhonghe, library director of lanzhou university, addressed the conference as the representative of other universities. , southwest jiaotong university librarian to America, southwest jiaotong university institute of public administration, secretary of the high every professor, jinan university library curator professor xiao-jun shi as a representative of the union initiator respectively delivered a speech, they said fully support and response initiated by chongqing university library "wisdom library alliance of collaborative

innovation" initiative, take an active part in wisdom figure alliance construction and obligation of alliance members enthusiastically.

## 6. Internet of Things Based Technology

The way in which users and library system information resources interact with each other in order to improve the clarity, flexibility and response speed of interaction, thus realizing the library mode of intelligent service and management. It is believed that smart library = library + Internet of things + cloud computing + intelligent equipment, which realizes intelligent service and management through Internet of things.

Beijing university of posts and telecommunications xiao-xia dong and others think that the intelligent library is the use of the Internet of things, such as perception technology makes the library's building environment, equipment, literature resources and readers of assets such as main composition factors can "speak", which can real-time access to relevant sensory data voluntarily, and on the basis of data analysis and processing of perception, the intellectualization of the library staff to provide a platform for the management, provide the reader with a ubiquitous intelligence service environment.

Professor wang shiwei, from the information research institute of Shanghai academy of social sciences, believes that digitalization, networking and intelligence are the information technology foundation of smart library, the interconnection between people and things is the core element of smart library, and people-oriented, green development and convenient for readers are the soul and essence of smart library.

Liu libin of hebei university believes that smart library is the continuation and development of digital library, and is a kind of advanced development form of digital library that provides users with intelligent services and management through the Internet of things. Wisdom library is composed of three elements: human, resource and space. It is based on technology and based on service.

According to wu en of Inner Mongolia agricultural university, smart library is under the environment of Internet of things, based on cloud computing technology and intelligent equipment, so as to realize the connection between books, people and people, and provide users with intelligent services.

It is not difficult to see that most of the definitions given by the above scholars are based on the Internet of things technology, which focuses on the interconnection and intercommunication between substances, and its main application is intelligent management. Obviously, libraries are not only made up of materials, but more importantly, users and intelligent services provided for users. To this end, the author according to the general meaning of "wisdom", puts forward the concept of "wisdom library", namely the wisdom library refers to the library system of library material (including people) has the perception, memory, understanding, identification, analysis, judgment and decision-making capacity, consists of three aspects, one is based on the intelligent management of the Internet of things, including the intelligent management of the readers, the ShuBaoKan intelligent management, intelligent management for assets, to the intelligent management of library space, etc.; Second, intelligent services based on wireless network and cloud computing, namely providing ubiquitous, convenient and trans-temporal reader services; Third, system decision analysis based on big data, including statistics and analysis of service objects classified according to different information, so as to make scientific decisions.

## 7. Summary

With the in-depth development of education informatization and the general application of information technology, the school smart library, as the main place for first-line education teaching and scientific research services, has been paid more and more attention by education competent departments at all levels and schools. How to build the smart library of the school in the future, how to establish the corresponding management and evaluation system, how to better use the latest scientific and technological means, to meet the growing demand of teachers and students for ubiquitous, personalized learning and scientific research, education management departments at all levels, schools and libraries need to solve the problem.

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