



# Discussion and Analysis on Development and Construction of Independent College Libraries in New Era – Case Study of Fuzhou University Zhicheng College

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**Abstract.** Independent colleges are a whole new model whose establishment symbolizes that China's higher education is gradually shifting to public education. How independent college libraries can better serve the teachers and students and play a vital role in cultivating talents in the new era are worthy of attention. This paper takes Fuzhou University Zhicheng College as an example and puts forward the development and construction requirements for independent college libraries in four aspects during the country's 14th Five-Year Plan.

**Keywords:** library; independent college; construction; new era

## 1 Introduction

Many scholars have presented their destinations in terms of the concept of independent colleges, which refer to the higher education institutions cofounded by normal higher education colleges and universities that offer bachelor's degrees and higher levels of degrees and social organizations or individuals other than state institutions, which use non-state financial funds and offer bachelor's degree [1]. One of the prerequisites of operating independent colleges are libraries, which play an irreplaceable role in the teaching and scientific research of independent colleges [2]. The construction and development of libraries are an important symbol of the level of teaching and scientific research of independent colleges and the characteristics of schooling. At present, the construction and development of independent college libraries are characterized by high thresholds, new models, fast speed, flexible management mechanisms, and dual excellent resources. How to build rational, scientific, and modern libraries is an important issue for independent colleges [3-6].

At the 14th Five-Year Plan is just around the corner, the library of Fuzhou University Zhicheng College should keep abreast of the college, continuously take into account the implementations of the 13th Five-Year Plan, precisely analyze and grasp the current and future difficulties and problems on the basis of the previous achievements, and initiate forward-looking thinking and planning for the development and construction for the next five years. The following are the four aspects discussed and analyzed:

## 2 Literature resources

As independent colleges are founded for a short time but expanded at a faster speed, the funds needed for building infrastructure are enormous. As a result, in order to meet the requirements of the Ministry of Education for the mandatory indicators of the quantity of library literature of normal higher education institutions, some independent colleges that are short of funds are using the minimum funds to buy the maximum number of books at the expense of the quality of these books. Although the libraries are filled with a glut of books and literature, the continuity of the construction of the libraries is ignored.

Therefore, in terms of resources and content of literature, attention should be paid to the construction of literature resources in newly planned areas such as the information technology discipline and great efforts should be made to build literature resources of the information technology discipline or establish a sharing mechanism of such resources, so as to alleviate the contradiction between supply and demand and support the development of relevant disciplines in the college. As for the construction and purchase of resources, a good balance should be struck between the needs of readers and funds, between weak disciplines and key disciplines, between ordinary readers and experts and scholars, and between electronic resources and paper resources. In addition to resources sharing, the college should gradually perfect the electronic literature resources system and establish an electronic teaching material and reference library to deal with unexpected public health emergencies such as the Covid-19. The library should make the fullest use of the foundation and advantages accomplished during the 13th Five-Year Plan, explore the library collection basis and the exclusive resources advantages of the region and the college, strengthen the construction of exclusive resources, and continuously enhance the highlights and the influence of the library.

## 3 Technology construction

In recent years, smart libraries have been a hot topic in the community of libraries. The key construction and application of "new infrastructure", including 5G technology, big data, and artificial intelligence, keep popping up. As the college is focused on science and engineering disciplines and boasts professional advantages such as computers and big data, the driving technology of its smart library development must be continuously improved and presented. At the same time, the channels of electronic resources should be constantly expanded. On the basis of IP address use and obtaining of traditional electronic resources, more ways to get access to electronic resources should be explored by actively working with database vendors. For example, VPN, CARSI, account password, etc. can solve the problem of gaining access to college resources from outside.

With the development of information technology and the popularity of the concept of smartilization, the library is also becoming digitalized, smartilized, and personalized. Smart library is a digitalized, networked, and smartilized library operating model based on information technology and featured with higher efficiency and convenience

[7-8]. It is a new library development model in the future. Based on the Internet and artificial intelligence technology, Zhicheng College has built a smart campus and library management system, which include the five major systems of dual-libraries joint system, seat reservation system, venue reservation system, new students admission education system, and face recognition channel system. See Table 1.

**Table 1.** List of Smart Library Management System (by owner-draw)

Number	Item Classification	Function
1	Dual-Libraries Joint System	Achieving information retrieval and book borrowing and returning in dual libraries on PC and achieving library resources management and reader services on WeChat.
2	Seat Reservation System	Achieving library seat reservation management
3	Venue Reservation System	Achieving process management such as application, approval, and confirmation of library venue resources.
4	New Students Admission Education System	Completing the training test for new students before entering the library and synchronizing the information to the library borrowing system.
5	Face Recognition Channel System	Achieving face recognition management of students and teachers upon entering the library
6	Library Layout Guide	Achieving hierarchical guide of the library.

#### 4 Information services

Apart from providing readers with the resources they need, the library should also function as an information center. First, the library should make up for the ways and means to meet the needs of the disciplines of the college through innovation, such as the resource demand positioning based on "user profile", and integrated scientific discipline services and data services. Second, the library should construct and improve an emergency information service system. In addition to providing readers with the resources they need, the library should also function as an information center. For example, in terms of the pandemic, readers were relatively ignorant about the pandemic in the early stage. In order to mitigate the nervous, anxious, and even panic feelings of the public, the library should provide cognition-oriented scientific knowledge promoting services, such as introducing scientific resources in regard to viruses, diseases, and psychology. When the pandemic was raging, the library should provide information services focused on information and public opinions and behaviors, like dispelling rumors and confusion about some "false information". In the later stage of the pandemic, the library should provide information services focused on public participation experience and discuss issues such as ecological balance, viruses, diseases, and drug and vaccine development, which the public are concerned about.

## 5 Service brand establishment

In the process of operating and managing the library, the concept of green service should be actively promoted. This means that when the library is providing readers with services, “the money should be spent wisely, the people should be allocated to the right positions, and the books should be offered to readers”. The needs of readers should be taken seriously in resources establishment and attention should be paid to performance appraisals in the management of librarians, so as to continuously promote the fullest use of resources and satisfy the needs of readers. The library should strive to evolve from a purely elementary service department to a higher level and constantly highlight the advantages of the library. For example, the library should beef up efforts in promoting reading and cooperate with the psychological counseling institutions of the college to carry out reading therapy services, like psychological counseling, for college students. When providing elementary services, the library should adhere to the normalization of service attitude and quality evaluation to improve the evaluation of readers. The library should develop from a resources institution of the college to an information institution and play a part in discipline establishment, talent cultivation, scientific research output, etc.

In addition, the library has fortified the construction of a face recognition channel system in order to increase the convenience of students in going in and out of the library. As a traditional identification medium, campus cards cannot be effectively bound to the people who own them. Therefore, upon entering and leaving the library there are cases when the campus cards are borrowed, stolen, fabricated, used by a different person, or not close at hand. If the person and card are not consistent, the student's true identity cannot be verified, which brings inconvenience to the actual teaching management. With the deep integration of information technology and modern education management, face recognition technology is constantly applied to various business scenarios in the college, including the entrance and exit channel management of library venues. Combined with smart face recognition tablets (Picture 1), the system using obstructed channel control equipment such as swing gates and wing gates can be deployed at the entrance of the library. The tablets are equipped with visible and infrared binocular cameras, which can realize live detection and avoid fake attacks such as photos or videos. Strict authentication is carried out for people going in and out of the channel. In this way, unauthorized and illegal people are prevented from entering and leaving important venues at will; the management problems arising from students' forgetting to take the campus cards and fraudulent use of the cards are solved; the personnel management at important venues is improved and security risks are eliminated.



Fig. 1. Smart face recognition tablets (by owner-draw)

## 6 Conclusion

In recent years, the independent colleges have seen rapid growth. They are also the cradle of cultivating scientific and technological innovation talents. The construction and development of independent college libraries should also adapt to the needs of the times. Independent college libraries should take advantage of their characteristics, actively. They also should boldly make explorations and innovations, construct a scientific, rational, and sophisticated library development model that is truly suitable for the characteristics of China's independent colleges, and give full play to the unique role of independent colleges in cultivating high-quality talents in the face of the new situation and new prospect brought by the deepening of the country's reform and opening up and educational reforms. During the 14th Five-Year Plan, the library of Zhicheng College should start from the actual situation and fully take into consideration the positive and negative impacts, so as to guide the development and construction of the library in the next five years, lay a solid foundation for the sustainable development, and make the fullest use of the unique role of independent colleges in cultivating high-quality talents.

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