

An Analysis of Information Collaboration Mode of Sichuan Vocational College Library Alliance

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Keywords: Vocational College Library, Alliance Information, Collaboration

Abstract: Since the 21st century, with the development of computer science, modern information and electronic communication methods have become a major impetus for the progress of human civilization, and computer science has also been applied to many fields in daily life [1]. The rapid development of society is closely related to the transformation of computer science, and the information innovation of the library alliance of higher vocational colleges is also closely related to it [2]. The library alliance of vocational colleges refers to a number of vocational college libraries based on computer and network technology to share book information resources, and to promote the flow of book information and the purpose of realizing resource sharing and mutual benefit. Knowledge innovation, and a consortium formed through various contractual relationships. In order to solve the problems of complex competitive environment, increasing investment risks, relatively lack of human resources, and financial support that are currently faced by the library of vocational colleges in our country, it has greatly alleviated the problems of a single book in vocational colleges. The contradiction between the lack of library literature information and the diverse needs of readers will not only increase the labor cost of librarians, but also inevitably lead to loopholes in management [3]. In addition, the information resources of the libraries of higher vocational colleges are more limited than those of undergraduate colleges. In order to obtain more resources and information, vocational colleges must establish library alliances to realize resource sharing, information collaboration, and jointly promote each other. Through the establishment of this alliance, it has become an important direction for the construction of major university libraries to truly realize the acquisition of such portable information services [4]. The development between them is conducive to cultivating applied talents of various high-tech levels required for socialist construction and production. Taking several vocational colleges in Sichuan as examples, the article discusses the development mode of information collaborative management of the library alliance in vocational colleges.

Colleges and universities in Sichuan Province, including 81 vocational colleges accounting for more than 60% of higher education. More than half of the libraries of vocational colleges use paper books as their main collection sources, and their digital and foreign literature resources are clearly lacking. At the same time, the shortage of resources, the small scale of vocational colleges, the shortage of technical talents, and the unbalanced distribution and development have hindered the

smooth development of the information service of vocational colleges in Sichuan Province. At present, the state attaches increasingly importance to vocational and technical education, and has successively established many vocational and technical universities to train vocational and technical application-oriented senior practical talents. If a set of document information resources guarantee mechanism suitable for Sichuan vocational colleges can be established, it will play an extremely profound role in improving the library service quality of Sichuan vocational colleges in an all-round way. To this end, vocational colleges in Sichuan Province should establish their own library alliances, and use the management and development model of information coordination to build and progress together with each other.

1. Characteristics of Collaborative Management of Library Alliances in Vocational Colleges

The Library alliance originated in the 1970s and is an important way to realize the sharing of library resources. It avoids the waste of resources caused by repeated construction to a certain extent through joint cataloguing and cooperative development of databases and cooperative reference and consultation services. In order to break the situation of self-enclosure, self-development, and self-improvement of different disciplines and different types of schools, it is conducive to the establishment of a unified planning and division of labor for surrounding and peripheral vocational colleges and public libraries. A literature resource network with its own characteristics, coordinated and optimized. After entering the information age, the library alliance has expanded from the simple traditional library to the field of digital information library and created a new alliance form, which makes the utilization of literature resources between them more in line with the actual needs. The establishment of the Vocational College Library Alliance has greatly expanded the resource acquisition of vocational colleges and played an important role in the training of vocational college students.

In the collaborative management of the Library Alliance of Vocational Colleges, the most prominent features include four. The first is the coordination of management. The coordination in management requires that the interests of each alliance member library should give way to the alliance to a certain extent. The overall interest is based on the overall interest. The second is the relative independence between members. In the library alliance, each member has relative independence and can conduct external activities in their own name, but this independence is limited by the alliance as a whole and must not conflict with the interests of the alliance as a whole. And it can enable librarians to engage in more work that can create higher quality and realize the value of human beings to users [5]. At the same time, there is framework cooperation among the members. The third is the comprehensiveness of collaboration. The scope of collaborative management includes both macro-level coordination and micro-level coordination. At the macro level, it is manifested as mutual assistance and cooperation to achieve common development. The above-mentioned collaboration refers to the collaboration in the realization of specific matters, such as the management rules and regulations of the specific resource management process. Finally, informatization is the common goal of collaborative development, and it is also an important support for the collaborative management of library alliances.

2. Orientation and Organization

2.1 Current Situation and Precedent

At present, some cities in Sichuan Province have established municipal-level public library service alliances, among which there are many vocational colleges involved. For example, the Nanchong Public Library Alliance is composed of the city library and the university libraries of

China West Normal University, North Sichuan Medical College, Nanchong Campus of Southwest Petroleum University, and Nanchong Vocational and Technical College, The collection and digital resource data list of each member library of Nanchong University Library and Public Library Service Alliance is as follows (table 1). As the initiator of the alliance, Nanchong City Library is mainly responsible for management and organizational responsibilities, and the library staff of China West Normal University and North Sichuan Medical College undertake the document transmission matters and daily maintenance support of the "Alliance Network" website and system. Southwest Petroleum University and the library of Nanchong Vocational and Technical College provide special document sharing and other affairs. The purpose of the alliance service is to attract and expand the public and university libraries in the Nanchong City area on the premise of voluntary participation. The alliance service network was fully completed in 2017, realizing the sharing of book resources and network service data. Citizens can read all kinds of books for free in urban public libraries, including the municipal library and many university libraries in the city with their ID cards or other valid ID documents, and truly realize the "one-card free reading", which marks the regional public book alliance service network has been fully established, and the public book resources of Nanchong City have ranked first in the province.

Table 1: Information on member libraries of Nanchong University Public Library Service Alliance

	Library Holdings	Digital Resources	Number of Borrowers
Nanchong City Library	530000	10	400000 Per year
West China Normal University Library	3270000	16	2000000 Per year
North Sichuan Medical College Library	400000	9	500000 Per year
Southwest Petroleum University Nanchong Campus Library	900000	20	1100000 Per year
Nanchong Vocational and Technical College Library	580000	8	740000 Per year

2.2 Service Development Strategy

Taking the establishment of the public and university library alliance in Nanchong City, Sichuan Province, as an example, it can be seen that the role of vocational and technical colleges is becoming increasingly prominent, and the development requirements for establishing a library alliance suitable for vocational colleges are also increasing.

The first is to establish an open professional system for document services [6]. The relatively professional document service system and the use of information transmission technology allow the central library business of the "Alliance Network" to integrate with the actual local situation, which can greatly promote the integration of the business of vocational colleges with the actual situation in the local area, and greatly enhance the integration of the business of the "Alliance Network" with the actual local situation. Promote the convenience of vocational college service alliances. The second is to provide targeted information services to groups in need. The service groups of vocational colleges still take the professional construction of vocational colleges as the main goal. After integrating the information and service content of the "Alliance Network", they are pushed to the units and individuals in need through a unique information system, and actively customize and promote the traditional document service of "Alliance Network", integrate traditional information resources, and realize information resource sharing in a more convenient information collaboration way. The third is to expand the service promotion area of the "Alliance Network", and absorb

relevant regional vocational college libraries to join the "Alliance Network" to realize information sharing and integration.

2.3 Overview of Information Collaborative Management of the Library Alliance of Vocational Colleges

The information collaboration of the Library Alliance of Vocational Colleges is a complex management process, which includes not only mutual cooperation, but also the division of labor between individuals and organizations. When implementing the information collaboration process, resource sharing and mutual communication and cooperation will generate massive amounts of information, which will flow within the organization. The main theoretical basis of library alliance information collaboration is collaboration theory and system theory, which fully considers the characteristics of different libraries, analyzes the mutual relationship and dynamic influence between libraries, and uses current information network technology for integration and control. The purpose is to realize the coordinated development of resources and interests between individuals and individuals, to realize the common interests of the library alliance as a whole. Changes in user needs and information environment have brought forward new innovative service concepts for library information alliances, and established library alliance collaborative service models from the aspects of resources, institutions, environments, and personnel, as shown in Figure 1.

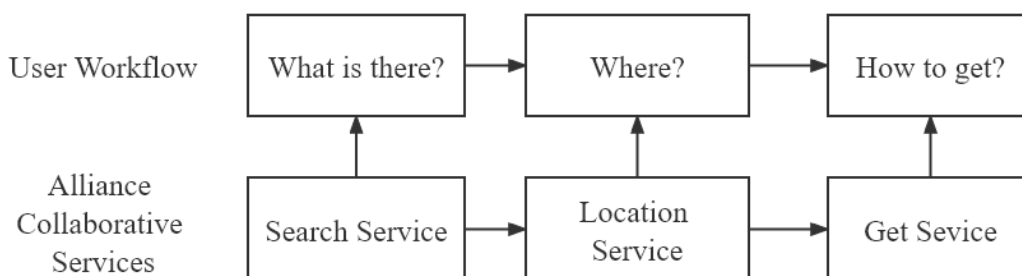


Figure 1: Collaborative service for user workflow

All in all, information collaboration is the basis for vocational colleges to establish library alliances and conduct orderly management, and it is also the fundamental way to solve information exchange and resource sharing between library alliance organizations and individuals, and between individuals and individuals. In terms of technical realization, it is mainly through the use of information network technology to establish a unified management platform to improve the efficiency of information integration. As long as the Library alliance makes full use of the network platform and develops extensive cross-regional cooperation, it will be able to make new achievements in deepening resource allocation and improving social services [7].

3. Analysis of Library Alliance Information Collaboration Mode

3.1 Information Collaboration of Library Alliance Resources

The information collaboration of library alliance resources is mainly reflected in two aspects. In terms of the types of interlibrary collections, due to the obvious regional and professional characteristics of the library of vocational colleges, the paper resources of its collections mostly correspond to the majors opened by the school, and the coverage is not extensive enough. In terms of information resources, although the information resources of the libraries of vocational colleges cannot be compared with those of undergraduate colleges, they also have considerable resource

storage. In order to achieve mutual connection within the library alliance, it is necessary to integrate various resources and classify them according to the internal or specific general standards of the alliance, to provide convenience for resource users to achieve more efficient search and use.

On the other hand, it is necessary to integrate the existing paper resources in various ways to make them informatized and digitized, to realize the digital collection and processing of the whole library's literature resources, and on this basis, to carry out the integration of similar resources at the alliance level, to realize resource sharing and information exchange among individual libraries in the alliance [8]. At the same time, the resource differences between different institutions can complement each other well. The resource exchange of this network platform effectively breaks the boundaries between organizations and improves the mobility of resources. It not only improves the utilization rate of literature resources, but also provides a greater development space for the teaching and research of vocational colleges. In addition, the search system design software is designed according to user needs, and the integration with the "Alliance Network" resource service system is realized through the full-text search system, to achieve convenient and fast collaborative realization of service goals. "Alliance Network" is based on the "one-stop" retrieval service architecture of the full-text retrieval system, as shown in Figure 2.

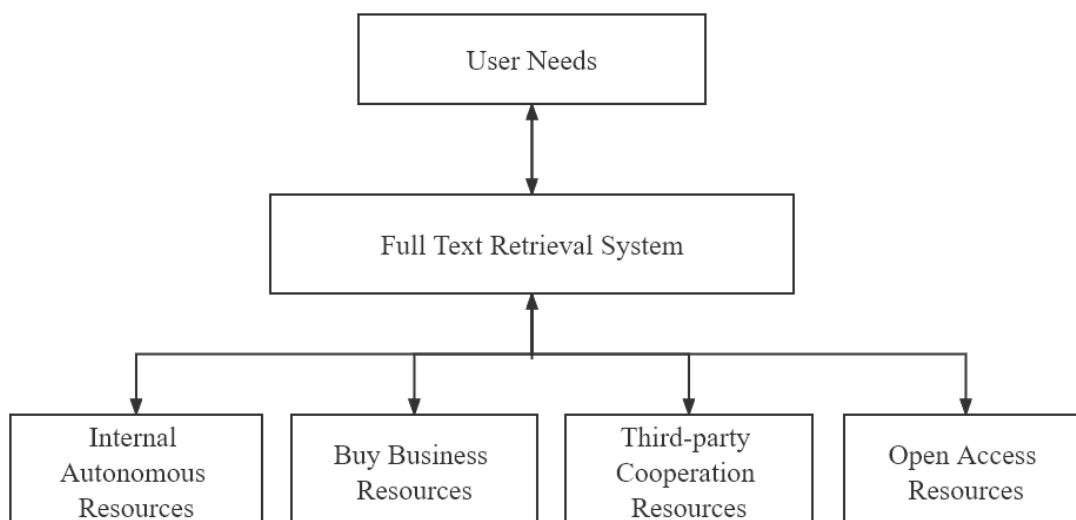


Figure 2: "One-stop" retrieval service system

On the other hand, further network cooperation services can be carried out with mobile operators entering the campus. After the rapid popularization of smart phones, the mobile library information service will become the library information service with the best development prospect in the future[9]. With the rapid popularization of 5G network, the mutual cooperation between the mobile network and the "alliance network", through the mobile phone as the medium of information acquisition and sharing, only needs to enter the relevant information on the mobile phone client to obtain a large amount of relevant information and data in the shortest time, and users can obtain information materials without geographical and time restrictions This way, which can further improve the service level of information collaboration of the "Alliance Network".The "Alliance Network" forms a collaborative service platform (as shown in Figure 3) through integrated search services, dynamic positioning services, and collaborative support acquisition services, and seamlessly links each service module to ensure the advancement of collaborative work. From the discovery of information to the present, it is easier to obtain the original text, and the difficulty of operation can be greatly reduced.

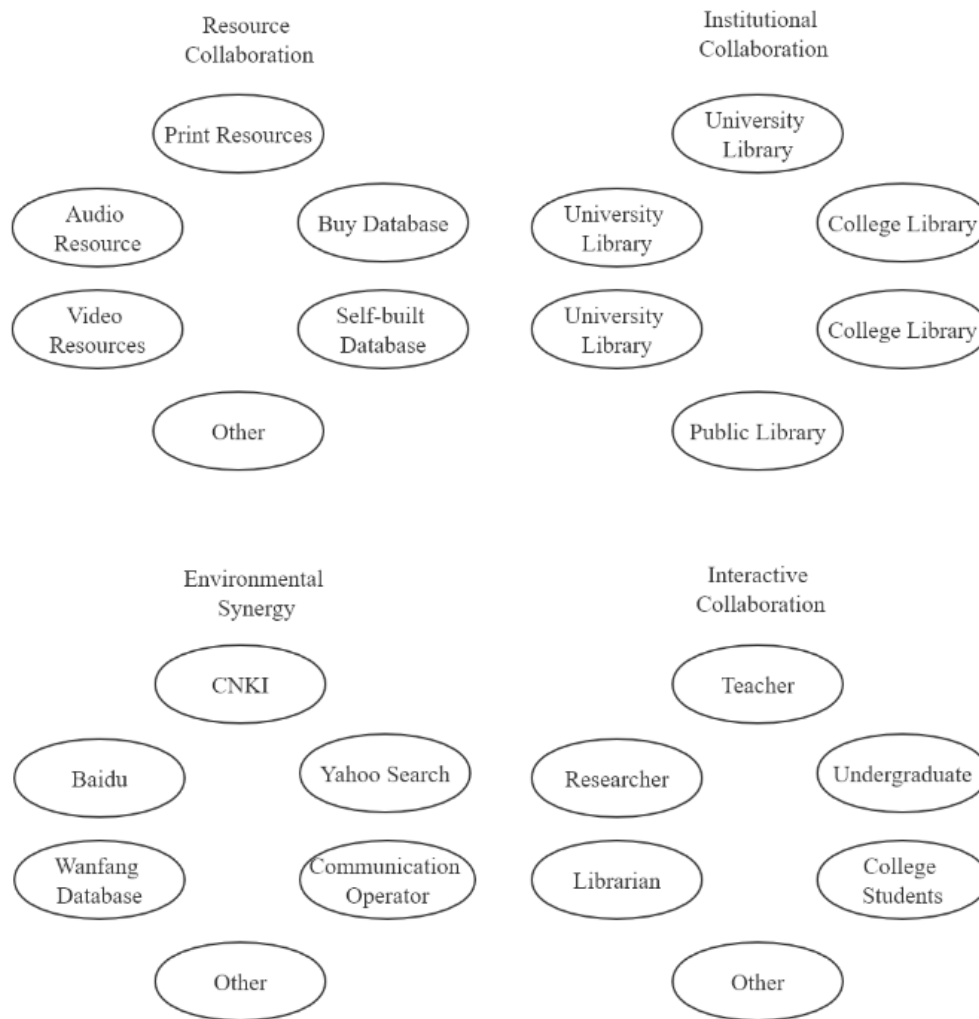


Figure 3: Collaborative service model of library alliance in higher vocational colleges

3.2 Information Coordination of Library Alliance Management Agencies

The main responsibility of the management organization of the library alliance is to manage the paper collection library and the corresponding digital library, to facilitate resource users to call resources and manage the corresponding digital library. The collaboration among librarians is also particularly important. Different division of work is destined to require the cooperation of each librarian, which also fully reflects the importance of the close relationship between the library and the librarians. Each library in the "Alliance Network" is obliged to coordinate with the librarians to give full play to their professional and technical advantages, to achieve a reasonable allocation of personnel resources, to maximize their professional performance in their areas of expertise, and to establish their own unique, creative and innovative and strong academic team of the Library alliance of vocational colleges, borrowing the opportunity of inter-library information sharing, implementing a reasonable division of labor of library professional and technical personnel and forming different information service teams, providing more professional information consulting services for the "Alliance Network" effective support. Each individual of the library alliance should set up a specific management agency, different management agencies should be subordinate to the general management agency at the level of the library alliance at the same time. Information

implements unified management and scheduling.

The needs of the faculty, staff, and students for resources are sometimes not specific, and the search usually starts from a relatively broad concept, coupled with the enrichment of information brought about by information sharing after the establishment of the Library Alliance, etc. Due to the influence of factors, the search results are generally not limited. One or two different resources belong to the libraries of different institutions. For the call of non-local library literature resources, the license approval and resource scheduling can be carried out by the alliance management agency, to realize resource scheduling and information sharing within the alliance. The library alliance sets up access levels for different resources and sets the priority scheduling of the fastest resources according to the client's situation. The resource scheduling rules are shown in Figure 4. In addition, it is also essential to pay attention to the user's evaluation and suggestions on the business based on the information collaboration of the "Alliance Network". The library alliance can be used as a hidden resource to explore according to the user's requirements and preferences, allowing users to participate to assist the information bureau to lose weight, it has effectively supplemented the ways for users to obtain information needs[10].

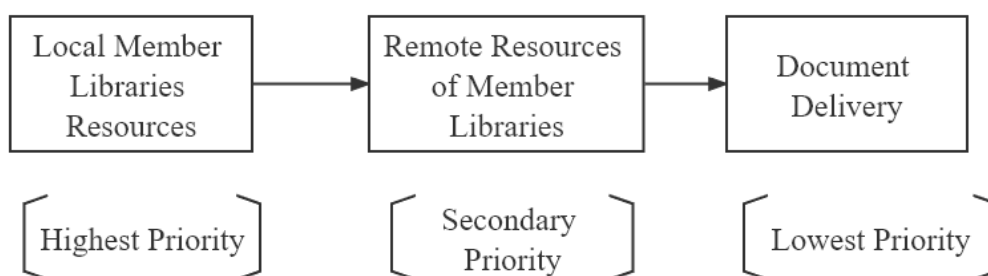


Figure 4: Library Alliance Resource Scheduling Rules

3.3 Information Interaction and Collaboration of Library Alliance Personnel

Personnel information collaboration includes collaboration between librarians and information interaction and collaboration between librarians and resource users. Librarians should cooperate with each other, including the interaction and cooperation of intra-library administrators and the interaction and cooperation of interlibrary administrators. The main purpose of this information collaboration is to realize the ability exchange between different administrators and enhance the overall management to provide better service for resource users.

In addition, the collaboration between librarians, faculty, and students is another important aspect of information collaboration. Information interaction and collaboration of personnel also includes the interaction between librarians and resource users, that is, communication between managers and resource users, creative discussions, and managers' listening to resource users' opinions on library management. Further optimize the resource management within the alliance, and improve the overall service level of the library alliance.

4. Conclusion

At present, the development of vocational colleges has been highly valued by the state, and the investment in education has been continuously increased, and corresponding policy support has been provided at the same time. However, not every higher vocational college can get enough resources to develop itself. In order to make the country's educational investment achieve better results, it is necessary to establish a virtual library including ontology and information at the level

of vocational colleges. The shared resources of the library alliance can well enable all vocational colleges to achieve common development.

Acknowledgements

Nanchong City Social Science Research "14th Five-Year Plan" 2022 Annual Project, Project Number: NC22B216.

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