

Received: November 27, 2017

Revision received: June 24, 2018

Accepted: June 27, 2018

Copyright © 2018 ESTP

[www.estp.com.tr](http://www.estp.com.tr)

DOI 10.12738/estp.2018.6.260 • December 2018 • 18(6) • 3508-3514

*Research Article*

# Construction and Sharing of Information Resources in College Libraries Based on the Concept of Educational Resources Sharing\*

Xinyu Wang<sup>1</sup>

*Jilin Agricultural University*

Qingsong Zhang<sup>3</sup>

*Jilin Agricultural University*

Mu Zhang<sup>2</sup>

*Jilin University*

Piwu Wang<sup>4</sup>

*Jilin Agricultural University*

## Abstract

As information resources in college libraries serve the aim of education and is an important aspect in evaluating the education quality, strengthening the construction of information resources is vital to improving education quality. Based on the concept of educational resources sharing, this paper takes college libraries in Jiangxi Province as an example to study the construction and sharing of information resources and finds there exist such problems as inadequate efforts in advancing with no obvious effects, insufficient capital guarantee, short of information resources to meet students' various demands with a lower degree of students' satisfaction with the service platform. Targeted at those, this paper proposes a certain countermeasure including perfecting the capital guarantee system, effectively balancing the interests of various parties, making more efforts in training and publicity, etc. The research results have been of sound reference to construction and sharing of information resources in college libraries of other regions.

## Keywords

Information Resources in Libraries • The Theory of Educational Resource Equalization • Information Resource Construction

\*<sup>1</sup>. Jilin Province Social Science fund project 2018 project: Research on space construction and service innovation of university library makers in Jilin province. Item number:2018B85. Project leader: Zhang qingsong.

<sup>2</sup>.Jilin province education science 13th five-year plan 2017 project: The exploration and practice of the key subject of Jilin province's dominant characteristic, crop science, under the background of double first-class. Itemnumber: GH170266.Project leader: Li Xiuying

<sup>1</sup>The Library of Jilin Agricultural University, Changchun 130118, China. Email: wangxinyu8303@126.com

<sup>2</sup>Mathematics College of Jilin University, Changchun 130112, China. Email: dssein@sina.com

<sup>3</sup>Correspondence to: Qingsong Zhang, The Library of Jilin Agricultural University, Changchun 130118, China. Email: wegigni@126.com

<sup>4</sup>Faculty of agronomy of Jilin Agricultural University, Changchun 130118, China. Email: wang345@sina.com

With the implementation of the national rejuvenation strategy through science and education in the new era of information technology, the major task of higher education in China is to improve education quality and nurture high-quality talents. Information resources in college libraries serve for education and is an important aspect to measure the education quality (Kang, Moon, Min, Kim & Kim, 2015). And construction of such resources can influence the teaching quality to a certain extent. Therefore, enhancing information resource construction in college libraries is vital to improving college education quality.

At present, information resources in college libraries are not limited only to traditional printing type. With the constant renewal of the Internet and information technology, digital resources in libraries have become increasingly abundant (Khan, 2016). Meanwhile, as the information resources in libraries of a single university are able to neither cover all the information nor meet the increasingly abundant informational needs of students, information sharing between college libraries have become the necessary need of college education development (Ofluoglu, Coyne & Lee, 2002). Though the library information resource construction started late in China, strengthening the construction and sharing of information resources in college libraries plays a vitally important role in improving college education quality with the aim of training more high-quality talents.

## The Concept of Educational Information Resources Sharing

Sharing of education has become a new education ideal. Currently increasingly more industries have been named with sharing. In education, there exist course sharing, book sharing, educational information resources sharing, etc. It is the future trend for the education to convert to the concept of sharing.

### Mode of Information Resources Sharing

**The Collaboration Mode with Supports from Administration** That mode aims mainly at establishing regional libraries and carrying out information resources sharing with administrative methods and strength via information management centers with administrative function. Normally, a pre-arranged plan will be made for optimal allocation of information resources to lower the costs to a great extent and enhance the coverage rate of information resources (Galaud *et al.*, 2010). Nowadays, the collaboration plan for construction of literature information resources are operated by that mode.

**Mode of Information Resources Sharing in Coalition** To realize resource co-construction and sharing, many libraries are combined in volunteer to form library coalition with cooperation agreement that can be complied with in joint. That core of that mode is to conduct unified management of resources, carrying out organization, management and coordination of the whole coalition through the chosen central library, thus forming an information resource sharing system including institute libraries, college libraries, and public libraries in a certain region without changing the original administration and personnel. The details are shown as in Fig.1 (Yoo & Kim, 2004).

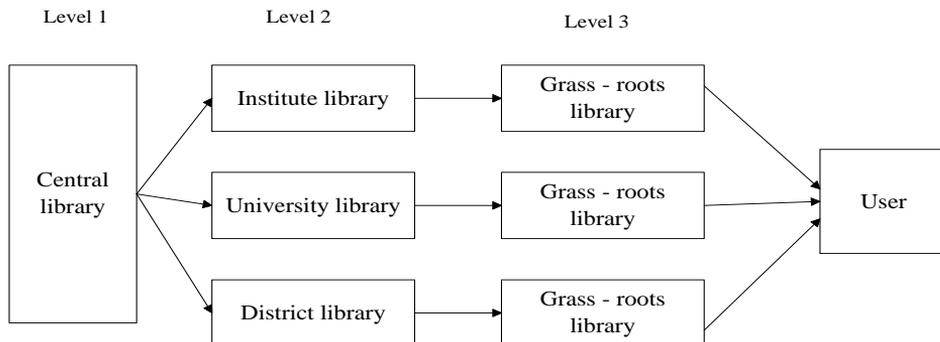


Figure 1. Alliance sharing mode.

**The New Mode of Information Resources Sharing Through Cooperation** With the advancing of society, there is no fixed mode for information sharing currently, but the common goal is to achieve the co-construction and sharing of education resources and a sustainable development (Porcel, Moreno & Herrera-Viedma, 2009). the author has summarized a mode combining the administration-support collaboration and the library alliance based on previous theories through extensive investigation and research, details as shown in Fig. 2.

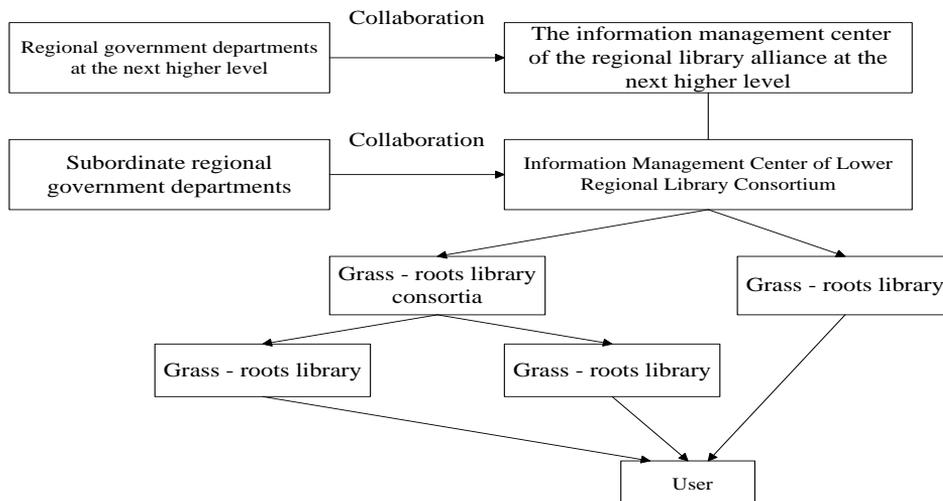


Figure 2. Sharing Mode under Combination of Administrative Cooperation and Library Alliance.

Combining advantages of the previous two modes, that mode integrates the already-formed library alliance in the region into a larger one under the administration intervention of the government. Division of labor between various units can reduce effectively the waste of resources. In fact, the management and operation of that mode is separated with each other and the role of government is to conduct guidance while the actual operation depends on the library coalition. That mode can promote the co-construction and sharing of information resources.

## Classification of Information Resources in Libraries

At present, information resources in libraries can be divided into three categories, entity resources, digital resources and network resources, details as shown in Fig.1. With the advancing of network technology, audio-visual type has almost been replaced and the machine-readable type has also suffered a great shock while among the entity resources printing type plays a major role and digital resources are advancing quite rapidly (Yang *et al.*, 2003). Information resources of various types have their own advantage and play respectively different roles in meeting various demands of students. They collaborate with each other to promote the constant perfection and development of information resources in libraries.

Table 1  
*Types of Information Resources in University Libraries*

Classification	Type	Typical case
Entity resources	Printing type	Books, periodicals, newspapers, dissertations, archives, standard documents, maps, research reports, conference materials, patent specifications, product specifications, government publications, etc
	Miniature reduction	Microfilm, microfiche, microfiche card, etc
	Audio - visual type	Records, audio / video tapes, films, slides, film films, etc
	Machine - readable type	Magnetic tape, magnetic disk, optical disk, chip type electronic publication
Digital resources	A document	Online / Network Full Text Database, Electronic Periodicals, Electronic Books, Electronic Newspapers, etc
	Second article	Library Collection Catalogue Database (OPAC), Commercial Online Database, Network Bibliographic Database, etc
	Three times of literature	Various types of online electronic reference books
	Apparent resources	Information released on the Internet by various international organizations, government agencies, academic organizations, educational institutions, enterprises / commercial departments, industry associations, etc.
	Hidden resources	Free databases, information resources that search engines cannot retrieve

## Construction and Sharing of Information Resources in University Libraries in Jiangxi Province

### Problems in Construction and Sharing of Library Information Resources

**Inadequate Advancing Efforts with no Obvious Effects** Construction and sharing of information resources of university libraries in Jiangxi Province aims at combining all college libraries together to found a library alliance and achieve the co-construction and sharing of education resources. However, at present, among 92 colleges, only 53 have joined the alliance (details shown in Table 2) with a coverage rate of only 57.6%, seeing a wide gap with that in Beijing, Jiangsu and Zhejiang Provinces (Mladenić & Grobelnik, 2003). At the same time, according to the performance in recent two years, those college libraries that have not yet entered the alliance have been quite slow in advancing, details as shown in Table 3.

Table 2  
*The Situation of Jiangxi University Library Joining Library Alliance*

Level of education	Number of schools	Number of officially activated member libraries
Undergraduate colleges and universities	35	24
Higher vocational education	39	20
Independent college	10	6
Adult college	8	3
Total	92	

Table 3  
*The Participation of University Libraries in Library Consortia Joint Purchase in Jiangxi*

Year	Number of schools	Number of databases	Number of participation
2014	13	28	45
2015	15	29	49
2016	18	31	51

**Insufficient Capital Guarantee** To achieve co-construction and sharing of library information resources is a complex and long-term process and requires a large amount of capitals and investments. However, in promoting co-construction and sharing of library information resources in Jiangxi Province, capital is insufficient quite often, thus restricting the process to a great extent (Zwart, Frings-Dresen & Duivenbooden, 1999). On the one hand, investment from school finance is limited only to buy books and unable to promote the informationization. On the other hand, there exists unbalanced development between various college libraries. Those colleges lagging behind always fall behind in the process.

**Short of Information Resources to Meet Various Demands from Students** As various colleges differ in the extent of development, there exist polarization in information resources. Libraries of some undergraduate colleges are abundant in resources while those of others are quite lagging to meet students' diversified demands (Zhao *et al.*, 2015). Most libraries own mainly paper books and are quite lacking in the content of digital resources with only a frame though the digital resources have been constructed.

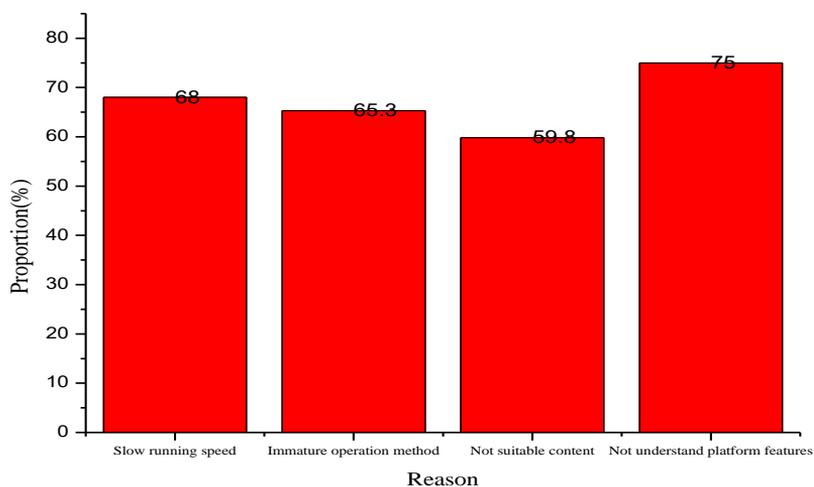


Figure 3. The Reasons for Students' Dissatisfaction with the Service Platform.

**Lower Degree of Satisfaction with the Service Platforms for Students** Except that students of a certain undergraduate universities know about the library information resources sharing platform, students of most college do not know enough about the platform with a lower degree of satisfaction, details as shown in Fig.3. Due to restriction from technology and capital, many college libraries are even unable to realize the inter-communication between their local area network. In some other colleges managers and teachers do not know deeply enough about the co-construction and sharing of library information resources, hence not paying enough attention to the relevant work, thus leading to slow progress.

### Advice on Countermeasures

**Perfecting the Capital Guarantee System** Serving for national education and being non-profit, library information resources cannot survive only depending on government finance and hence needs support from various fields in society to promote their co-construction and sharing. Firstly, government financing support needs be strengthened. Secondly, colleges can extend the path for collecting capitals, especially the social capitals from including civil organizations and groups. In addition, libraries can settle the problem of financial strain through fee-based consultation and service.

**Effectively Balancing Interests of Various Parties** As the government, colleges, society and market have all invested a certain to the construction and sharing of library information resources, interests of those subjects need be adjusted to a balanced state. Meanwhile, thinking of relevant subjects need be adjusted and guided so that they can constantly in volunteer be engaged in work related to the construction and sharing. The government need construct a mechanism of balanced interests that can realize equilibrium between costs and income, rights and obligation, justice and efficiency.

**Strengthening Training and Publicity** Publicity of library information resource construction and sharing also needs be strengthened in colleges to let more managers and teachers know about its importance, thus extending the influence. Meanwhile, the training of relevant personnel need be enhanced also so as to establish related incentive mechanisms to motivate the enthusiasm and initiatives of teachers.

## Conclusions

Based on the concept of sharing educational resources and taking college libraries in Jiangxi as an example, this paper studies the construction and sharing of information resources in college libraries with below results:

In co-construction and sharing of library resources in Jiangxi Province there mainly exist problems as inadequate efforts in advancing with no obvious effects, insufficient capital guarantee, short of information resources to meet diversified needs of students who hence own a degree of satisfaction not that high.

The countermeasures proposed include: perfecting capital guarantee system, effectively balancing interests of various parties, strengthening training and publicity.

## References

- Galaud, J. P., Carrière, M., Pauly, N., Canut, H., Chalon, P., & Caput, D., *et al.* (2010). Construction of two ordered cDNA libraries enriched in genes encoding plasmalemma and tonoplast proteins from a high-efficiency expression library. *Plant Journal*, *17*(1), 111-118. <http://dx.doi.org/10.1046/j.1365-313x.1999.00356.x>
- Kang, L. S., Moon, H. S., Min, C. H., Kim, S. K., & Kim, H. S. (2015). Developing an active resource allocation algorithm considering resource supply and demand in a construction site. *KSCE Journal of Civil Engineering*, *19*(1), 17-27. <http://dx.doi.org/10.1007/s12205-013-0203-6>
- Khan, M. M. (2016). Marketing of Library and Information Services in University Libraries: A Practical Experience. *Asian Journal of Multidisciplinary Studies*, *4*(1). <http://dx.doi.org/10.1515/9783598440199.2.120>
- Mladenić, D., & Grobelnik, M. (2003). Feature selection on hierarchy of web documents. *Decision Support Systems*, *35*(1), 45-87. [http://dx.doi.org/10.1016/s0167-9236\(02\)00097-0](http://dx.doi.org/10.1016/s0167-9236(02)00097-0)
- Ofluoglu, S., Coyne, R., & Lee, J. (2002). PLA(id): A tool for organising and sharing on-line building product information. *Automation in Construction*, *11*(5), 585-596. [http://dx.doi.org/10.1016/s0926-5805\(01\)00068-1](http://dx.doi.org/10.1016/s0926-5805(01)00068-1)
- Porcel, C., Moreno, J. M., & Herrera-Viedma, E. (2009). A multi-disciplinar recommender system to advice research resources in university digital libraries. *Expert Systems with Applications*, *36*(10), 12520-12528.
- Yang, J., Wang, Q., Deng, D., Weng, M., Yin, X., & Jin, D., *et al.* (2003). Construction and characterization of a bacterial artificial chromosome library of maize inbred line 77ht2. *Plant Molecular Biology Reporter*, *21*(2), 159-169. <http://dx.doi.org/10.1007/bf02774242>
- Yoo, H. H., & Kim, S. S. (2004). Construction of facilities management system combining video and geographical information. *KSCE Journal of Civil Engineering*, *8*(4), 435-442. <http://dx.doi.org/10.1007/bf02829167>
- Yoo, H. H., & Kim, S. S. (2004). Construction of facilities management system combining video and geographical information. *KSCE Journal of Civil Engineering*, *8*(4), 435-442. <http://dx.doi.org/10.1007/bf02829167>
- Zhao, M., Yue, T., Zhao, N., Yang, X., Wang, Y., & Zhang, X. (2015). Parallel algorithm of a modified surface modeling method and its application in digital elevation model construction. *Environmental Earth Sciences*, *74*(8), 6551-6561. <http://dx.doi.org/10.1007/s12665-015-4177-1>
- Zwart, D. B. C., Frings-Dresen, M. H., & Duivenbooden, V. J. C. (1999). Senior workers in the dutch construction industry: a search for age-related work and health issues. *Experimental Aging Research*, *25*(4), 385-391. <http://dx.doi.org/10.1080/036107399243841>