Relying on Library Consortia to Promote Resource Sharing：Global Vision and Local Strategy Practice

Chen Shunzhong　　Shanghai Library

Abstract:

The Shanghai Library has global vision and local strategy to conduct collaboration with domestic and foreign library consortia. This paper studies the case of cooperation in document supply and ILL services of the Shanghai Library with CALIS、OCLC and Subito, describes the cooperation that would improve the global influence of libraries, expand document services and enhance librarians' capacity for knowledge services. So it is very important to promote resource sharing between libraries.

1 Why Document Supply?

The original document delivery services were provided by libraries and information institutions in the interaction of libraries as book loan services. In the mid-19th century, Merle (Robert von Mohl) first proposed the idea of collection division coordination of the library. In 1893 an interlibrary loan regulation was draw up in German. In 1917, the American Library Association also developed interlibrary loan rules and clearly pointed out that libraries can use other libraries' collections for their personal users. ILL as the main form of document supply services mainly included book loan and journal paper copying, etc., generally provided free of charge, if necessary, and sending documents to users by mail. That is what we described as the original document supply.

With the development of computer technology, in the 1970s and 1980s there were a large number of document supply services. A number of electronic databases provided people with a convenient way to retrieve information remotely and get the original document by payment. Thus was born the original electronic document supply service.

In the 1990s, document supply services went into a flourishing period. The development of computer technology, network technology and database technology brought good opportunities to document supply services. A number of integrated professional databases with user-friendly interfaces, simple retrieval and full functions emerged, especially the Z39. 50. It broke the barriers in the literature data communication and transmission networks,

achieved transparent distributed database system visiting, and provided a very convenient way in user retrieval. A large number of union catalog databases, full-text databases and e-books, e-journal databases have provided a wider range of resource supporting for document supply services.

Now with informatization, networking, and the in-depth application of digitization in the library，the open, interconnected，convenient and integrated document supply network system has been gradually established. It broke through the traditional limitations of space and underwent tremendous changes in many ways，such as the overall literature resources development, communication, usage depth and range, and the speed of propagation. In this borderless, open, cheap and high-speed environment of "Great Library", document supply services are playing an increasingly important role.

2　Document　Supply　Services in　the Shanghai Library

The Shanghai Library was founded in 1952, and the Institute of Scientific and Technical Information of Shanghai was established in 1958. In October 1995, the Shanghai Library and the Institute of Scientific and Technical Information of Shanghai merged to become a comprehensive research public library and center for industrial information.

The Shanghai Library now has a collection of over 53 million items in Chinese and foreign languages, including such unique resources as rare books, letters and rubbings, celebrity manuscripts, genealogical records and local histories, Western rare books, sheet music, modern newspapers and periodicals, and patents and standards. Among them, there are more than 12 million Chinese and foreign language books, 43,000 modern newspapers and periodicals in Chinese and foreign languages, 2 million historical documents, especially 190,000 rare books.

As early as 1959, the Shanghai Library established interlibrary loan relationship with 75 major libraries over the country, delivering documents in book-based forms. The Shanghai Library joined the interlibrary loan services of OCLC (Online Computer Library Center) in 1998, and was the first library in the mainland China to provide interlibrary loan services on OCLC, which marked the beginning of the Shanghai Library's interlibrary loan services to the world. While the acquisitions department is responsible for this service, the reference

department is responsible for document delivery, which means two inseparable services were divided up.

In order to strengthen document services, fully activate collections and share documents all over the world, in 2003, the Shanghai Library established a center specializing in document supply and interlibrary loan services that followed the example of the Document Supply Centre of the British Library. The major operation is integrating all document supply services which were separated in different departments in the library. Through 10 years of efforts, the Shanghai Library has set up a good document supply and interlibrary loan computer system, a rapid response to the service system, a set of standard operating procedures and a professional team.

In a decade, especially in the last two years the Shanghai Library's document supply and interlibrary loan services have achieved a great progress. In 2003, the amount of documents supplied was less than 5,000, but exceeded 20,000 in 2008. In September 2010, the library began the interlibrary loan of books, and in 2011 the amount of documents supplied reached 23,000. In 2012, this figure exceeded 30,000. The compliance rate is over 90%.

In regard of service receivers, in 2003, the Shanghai Library Document Supply Centre only had a few dozen ordinary customers, mostly in Shanghai and the Yangtze River Delta region. In 2012, the number of users of the Shanghai Library Document Supply Centre exceeded 400, including Fortune 500 companies, emerging research institutions, SME customers, libraries and library consortia. These customers are located in the country and around the world. The basic distribution of customers is that libraries account for 25%, institutional clients (such as the Shanghai R & D Public platform) account for 15%, enterprises customers account for 50%, and about 10% are individual readers. As shown in Figure 1.

Figure 1.
Shanghai Library Customer Distribution Structure
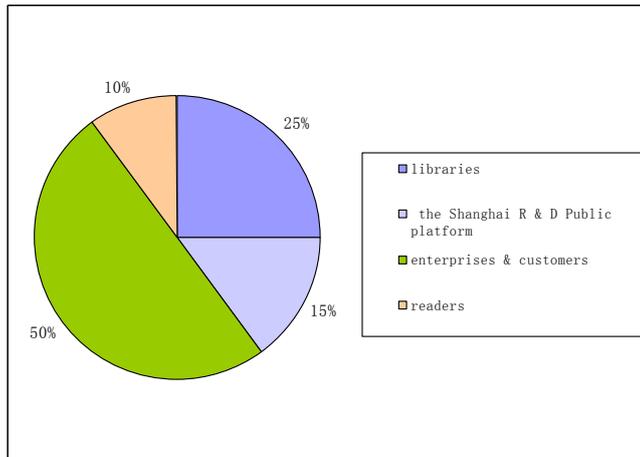
The amount of documents supplied to libraries has increased year by year, and in 2012 the amount of documents supplied exceeded half of the total amount. As shown in Table 1.

Table 1.

Documents supplied by ILL & DDS in the last three years in the Shanghai Library

Year	Amount of documents supplied(copies）	Interlibrary loan(copies)	Percentage of interlibrary loan in documents supplied
2010	18541	3837	21%
2011	23141	7206	31%
2012	33070	17401	53%

In addition to the services of a professional team, a set of standard operating procedures and a good document supply and interlibrary loan system, such a large leap forward can also be attributed to the successful cooperation with library consortia or organizations at home and abroad.

2 Cooperating with domestic and foreign library consortia is a good example of a global vision combined with local strategies

2.1 Cooperating with domestic Library consortia to expand the document service coverage of the Shanghai Library

The establishment of Chinese library consortia began in the late 1990s, with a rapid development since 2002. The most successful library consortia are mostly inter-organizational,

such as the State Science and Technology Library (NSTL) within the science library system, CALIS within the university library system at the national level, the regional SHELIB in Shanghai, JALIS in Jiangsu Province, TJDL in Tianjin, and Hong Kong Academic Library Link. The Shanghai Information Resources Network was established in Shanghai in 1994, which was the prototype of a consortium, and its main activities were interlibrary loan and resource sharing between the member libraries in Shanghai, and the annual development of a serial union catalog for the coordination of acquisitions. This network has played a certain role in the sharing of resources and coordination of acquisitions, but since it is confined to the Shanghai area, the range of benefit is small, the influence is narrow and the service promotion is limited.

If the Shanghai Library wants to expand its document service and going out of Shanghai, the cooperation with library domestic consortia is the best way.

2.1.1 Cooperating with CALIS to open up a new ILL situation

One important role of the library consortium is service marketing. For this I have a deep impression in actual services. The Shanghai Library's interlibrary loan of book service system began to run in September 2010. The library tried to market the service through the library website, holding meetings to exchange ideas on interlibrary loan and document supply services, and issuing promotional brochures, but with little success. In the year between September 2010 and August 2011, the number of books requested through the interlibrary loan service was only 1,570, from 20 libraries. In order to allow more readers to know and use this service and the library resources, we first thought to cooperate with library consortia. So in November 2011, the Shanghai Library signed an agreement with CALIS to carry out the cooperation in interlibrary loan and document delivery services, becoming the first public Library conducting cooperation with CALIS. We hope this cooperation can truly allow the collection of the Shanghai Library to be available to all universities in the country, and at the same time, the readers of the Shanghai Library will be able to share the resources of university libraries, which will have a profound impact on the library communities at home and abroad. With this cooperation, The CALIS management center widely publicized this service through its sub-centers across the country, covered over 1300 university libraries. The

Shanghai Library and CALIS also conducted promotion month activities for the interlibrary loan of book services in November-December 2011 and May 2012. During the event, CALIS implemented the policy of full subsidy for service fees. In the month of promotion from November to December, the total amount of interlibrary loans reached 2,286, more than the total amount of the previous year. The effect of the promotional activities in May 2012 was even more obvious, and in one month, the amount of interlibrary loans reached 2,612, and the number of requesting libraries increased from 76 to 102. Promotional activities in October 2012 lead the highest amount of interlibrary loan in a new record of 3,900. As shown in Table 2. All this shows that with more and more libraries aware of this service, more and more readers can have fast and easy access to the Shanghai Library collection without coming to the Shanghai Library. This service not only allows the reader to enjoy the convenience of resource sharing, but also enables the Shanghai Library's resources to get maximum utilization.

Table 2.

Comparison of Three Promotional Activities

	Nov. –Dec. 2011	May 2012	October 2012	Previous Year
Interlibrary Loans （copies）	2,286	2,612	3,900	1,570
Requesting libraries	76	102	85	20

In November 2011 to December 2012, the amount of interlibrary loans reached 12,000. Among the books lent through the interlibrary loan services, Chinese books accounted for 25%, foreign language books, except Japanese books, accounted for 70%，and the latter accounted for 5%. It is particularly worth mentioning that books first came into circulation through this service accounted for a third of the total amount, which shows the Shanghai Library resources are truly activated and are really used by scholars.

2.1.2 Cooperating with CALIS to make innovations in service models and methods

In the beginning of the cooperation with CALIS, the lack of a compatible computer system is the biggest obstacle. As mentioned, The Shanghai Library has developed a document delivery and interlibrary loan system for managing users and services. CALIS also has a mature interlibrary loan and document delivery system, covering more than 1,300 university libraries. With the central library, regional branch libraries and user protocol libraries, the system is quite complex. The Shanghai Library tried to use the data interface technique to transfer data between two systems, but it failed because of the complexity and difficulty of the two systems. After much research, the final resolution is that dual systems should coexist. It means the Shanghai Library IPAC is embedded into CALIS system through a reverse proxy mode. As CALIS users accept and process interlibrary loan requests on the CALIS system, The Shanghai Library scans book barcodes into the Shanghai Library interlibrary loan system at the same time. Although a somewhat tedious operation, it is the simplest we can do at this time. CALIS will upgrade its functions in the fourth stage development to reduce more operational work.

In the delivery mode, the traditional approach is that the lender is responsible for sending out books, and the borrower is responsible for returning. According to the loan experience of the Shanghai Library, the more steps in the procedure, more errors can occur. From the workflow, the most error-prone procedure is sending and returning. So, the Shanghai Library provides an innovative solution of two-way logistics, namely, both sending or returning procedures use the same logistic company with high service quality. CALIS accepts this proposal. The selected company use dedicated personnel, cars, hot line，email address and QQ number to support a good service.

There is also an innovation in communication. In the Internet era, a long distance does not affect communication and services. QQ is a live chat software worldwide that has the largest number of registered users in the world. We use QQ in our interlibrary loan services for communication. The Shanghai Library registered a QQ group account for interlibrary loan services. All libraries contacted with the Shanghai Library in the ILL service are added to the group. Through QQ group, the library offers service consulting and technical guidance, publishes daily mail express numbers and so on.

It can be seen from the above examples that with the cooperation with library consortia, and

through a variety of activities and means of publicity, good services can be quickly promoted and accepted. Through interlibrary loan services, resource sharing can achieve effectiveness.

3.2   Cooperating with international library consortia to improve the global influence of the Shanghai Library

3.2.1 Cooperating with OCLC ILL to let the world know the Shanghai Library

As the first library in the mainland China to provide interlibrary loan services on OCLC, the Shanghai Library formally started ILL services in 2003. In 2003, the amount of books the Shanghai Library requested from OCLC exceeded the amount of books lent to OCLC, but in 2004, the situation was reversed. As shown in Table 1, the ratio between borrowing and lending was 9:7, in 2004 1:2, and in the following years, there was a steady increase in lending every year. In 2008, the ratio reached 1:7, and in recent years there has been a stable ratio between 1:6 and 1:7. It is obvious that the Shanghai Library's collection and services are gradually recognized by the colleagues around the world at such a platform of consortia as OCLC, and the Shanghai Library has become one of the important document supply libraries in mainland China, establishing the brand of the Shanghai Library Services. Two year ago, I attended the 12th Interlending & Document Supply International Conference held in Chicago. The 200 or so librarians attending the conference mostly got to know the Shanghai Library and its resources and services by SLY (the service code of the Shanghai Library) on OCLC. Currently, in the OCLC online union catalog database (WorldCat), there is only a small number of the Shanghai Library's bibliographical records of books in Western languages. OCLC has been actively discussing with the Shanghai Library the project of cooperation related to the bulk upload of Chinese bibliographical data to the WorldCat. In December 2013, the Shanghai Library will upload more than 2 million bibliographical records to WorldCat. I believe that through this project, internationally, more library colleagues will know about the Shanghai library resources and services, and our influence will be self-evident.

Table 3.

The ratio between borrowing and lending in

the Shanghai Library Interlibrary Loan Services on OCLC ILL

	2003	2004	2005	2006	2007	2008	2009	2010	2011

Borrowing/lending	9:7	1:2	1:3	1:2	1:4	1:7	1:6	1:6	1:7

3.2.2 China Direct ：Successful practice of document services between China and Germany

3.2.2.1 The Birth of China Direct

China Direct is a document delivery service cooperation project between China and Germany. Chinese partners include the National Science Library of Chinese Academy of Sciences, Beijing University Library and the Shanghai Library. The German partner is Subito Document Delivery Service Center. It is a cooperation project proposed by Chinese and German libraries based on the characteristics and the needs of users. Both sides can carry out document search and full-text providing services directly via Subito service system. The project will effectively promote library information resources sharing between Chinese and Germany.

Subito is an international library document delivery system established by the German Ministry of Education and Research in order to speed up the provision of documents. Since 1998，subito is a very successful and popular document delivery service both in Germany and internationally. Subito has 42 member libraries in Germany, Austria and Switzerland and three partner libraries in China which are the National Science Library of Chinese Academy of Sciences, Beijing University Library and the Shanghai Library. The mission of the non-profit making organisation is firmly defined in its statute, namely the advancement of science, research and education by offering direct access to the literature of public academic member libraries using a modern catalogue system and innovative communication technology. It can also be said that Subito is a library consortium.

In 2007, led by the National Science Library of Chinese Academy of Sciences, Beijing University Library, the Shanghai Library and Subito jointly launched the Chinese-German document delivery services named as China Direct. It has been supported and funded by the Sino-German Center for Research Promotion in Beijing and the German Research Foundation.In November 2009, the fully developed China Direct embedded in the Subito system was formally put into operation. Our three Chinese partner libraries together hold more than 36.500 individual journals. China Direct is open for all subito users. China Direct has realized the direct retrieval and delivery services of Chinese documents in the foreign document delivery system, and become the first example of Sino-German cross-regional resource sharing services. The Library of Chinese Academy of Sciences, Beijing University

Library and Shanghai Library have gained visibilities through the China Direct of Subito in Germany and other regions.

3.2.2.2   Service achievements of China Direct

After nearly four years of service, the amount of documents delivered on China Direct is increasing year by year (as shown by Figure 2),   which is in stark contrast with the yearly decrease in document delivery in Subito in recent years. As of the end of December 2012, China had delivered 2,299 documents to Subito, of which the Shanghai Library supplied 1,429, accounting for 62%, The Library of Chinese Academy of Sciences supplied 544, accounting for 24% and the Beijing University Library supplied 326, accounting for 14%. The compliance rate is 97%, much higher than that of the Subito libraries (88%) (as shown by Table 4) in Europe. The request came from the libraries in a dozens of countries and regions, including Germany, the Czech Republic, Belgium, the Netherlands, Switzerland, Sweden, Spain, Austria, Korea, Australia etc. (as shown by figure 3) Before carrying out this service, with the exception of the British Library, the Shanghai Library seldom had document delivery transactions with libraries in other European countries. It is obvious that the cooperation with library consortia has expanded the Shanghai Library's services and influence to Europe.

Figure 2.

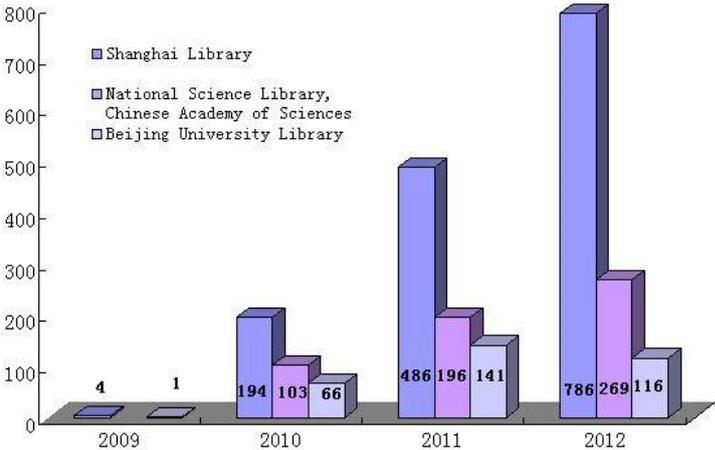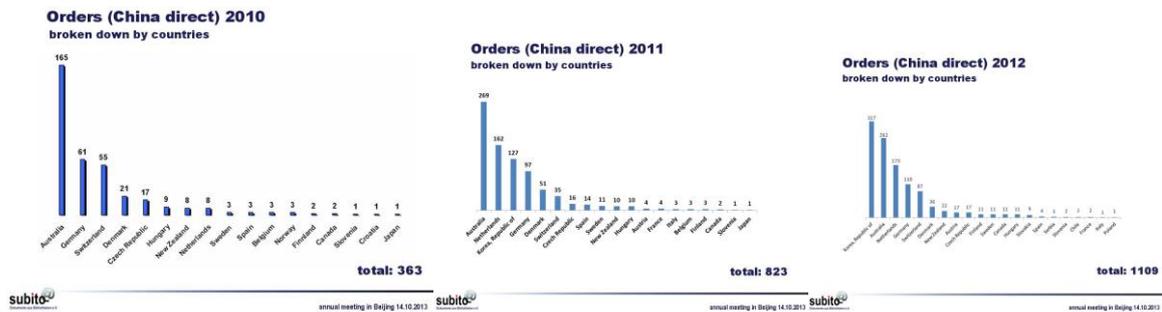The amounts of document delivery of the three libraries on Subito

Table 4.

Comparison with European libraries on Compliance Rate

Year	Compliance rate Chinese libraries	Compliance rate European libraries
2009	100.00 %	89.29 %
2010	93.66 %	88.21 %
2011	96.25 %	87.84 %
2012	96.84 %	87.56 %
Avarged	96.69 %	88.23 %

Figure 3.

Annual orders broken down by countries

3.2.2.2   The success experience of China Direct

The successful cooperation of China Direct is based on a lot of detailed work done early by China and Germany, mainly in three aspects, including data preparation，system construction and effective monitoring.

First, it is the Chinese journal data preparation. According to the characteristics of Subito retrieval system, Chinese libraries identify the fields of Chinese journals as: ISSN number, the Chinese title, English title, pinyin title, holdings information, and the beginning and ending years of journal publishing. The three libraries export basic data from their respective collections systems and make the appropriate changes and additions. The three libraries have submitted about 36,500 titles of Chinese journals.

Second, it is the construction of the document delivery service portal China Direct by Subito. The China Direct retrieval system is embedded into Subito system. According to the

Chinese journal data provided by the Chinese libraries, several access points are set up in the search system, including the Chinese title, English title, Chinese Pinyin title, ISSN, etc. The libraries' holding information will be shown in the search results. If the holding libraries are more than one, the libraries will be listed in the search results, and users can choose the supplier library. Search results can be further limited on publication year, narrowing the scope of collection, so that the users can choose the supplier library. User's requests can be sent directly to the supplier library, and the interlibrary loan staff will get an email alert. There are two URLs in the email, one is for uploading documents, and the other is for the webpage to explain why the request can not be matched. From these two URLs, the interlibrary loan staff can log in directly to the operating system. The function of the system is flexible, the interface is user-friendly, and the workflow is very clear for users to submit a request and the suppliers to check the request and process the request. The system as a one-stop service is easy for users and librarians to use and operate.

As mentioned previously，the compliance rate of 97% is the result of the complete data quality control of the entire system. Although the data formats of the three library catalog systems are different, in the Subito system they should be transformed into the same format. It is very important to do data revision after finishing the data export. Therefore, China and Germany do a lot of work in this aspect. The system has automatic data correction and duplicate-check functions to filter the inadequate data to a temporary database. The three libraries correct errors and submit the data as soon as possible. Subsequent updating data follow the same standards, once a year.

The Sino-German cooperation in Document Delivery is not only an international cooperation, but also a multilateral cooperation in China. It is a reciprocal cooperation between China and Germany. Chinese libraries join the Subito organization as an associate. We have obligations to supply and we have right to use services in the meantime (Obligations and rights of co-existence). China Direct has enriched the Chinese resources in Subito and broadened the service content of Subito. Users can search and obtain Chinese documents through foreign document delivery systems directly. It explores a new approach to share resources across different areas, especially for delivering non-local and other countries' documents in different languages.

It has achieved cross-domain resource sharing, a cross-domain information service and cooperation mechanism, which is a real practice of cross-domain information services.

4 Other achievements in cooperating with library consortia -- librarians' capacity for knowledge services enhanced

Each service of the interlibrary loan and document supply is an opportunity for the library to market its image. Therefore, librarians engaged in this service are both its practitioners and promoters. In order to provide a good service, librarians must have a high awareness of resource sharing and services; must fully understand and can make good use of the various kinds of "shared resources"; must have the abilities to conduct promotions to readers; must have the ability to expand the shared resources; must have the ability to analyze library collections and user needs; must have the skills to retrieve information and must have the capacities for communication and coordination among librarians.

These abilities are not achieved overnight. The important means for the library consortium to carry out services is to hold various forms of training, exhibitions, etc. The Shanghai Library and CALIS jointly organized two ILL promotion conferences, and librarians gathered together from all over the country. At the conference, librarians from the Shanghai Library, CALIS and other university libraries gave presentations, and they shared their work experience unreservedly. The conference participants not only gained knowledge, but also had a full view of their colleagues. People joked that they finally met the "live librarians". As interlibrary loan librarians deal with books and requests every day, mostly by telephone or through the Internet, without seeing each other, when there is an opportunity for communications and cooperation, naturally they will not easily let it go. The Shanghai Library Document Supply team made a debut at the conference, and everyone was impressed by the team's dedication and spirit of collaboration. After the meeting, librarians got together again to continue in-depth communications. Such meetings have not only helped to promote library services, but also allowed librarians to make more friends. After librarians going back to their own work, the previous sense of strangeness on the ILL QQ group disappeared. When a library encounters difficulties, all it needs is to ask, and other libraries will help solve the problem. When a library conducts an innovative initiative, it will also publicize the use of new

techniques on the ILL QQ.

It can be seen that the invisible cooperation network formed in cooperation with library consortia has linked librarians closely together, and truly enhanced their professional knowledge and abilities. The sense of trust between the peers is truly strengthened; the awareness of resource sharing and services is increased through mutual influence; the flowers of friendship are blooming and various services are naturally expanded.

The roles of the library consortium are not limited to the above description, and the author only tries to illustrate the importance and advantages in joining the consortium or conducting cooperation with the consortium, through the experience of actual work. Of course, the development of the information age has brought many challenges to library consortia. For example, each consortium has its own resource sharing service platform, and each is independent. When a library needs to receive relevant services, it must first register on the respective platform. If in the future, a larger service platform can be established for the interoperation of these library consortia, it is more conducive to the sharing of resources and services.

Reference
[1] Chen Shunzhong, Xia Lei. Activation and Sharing—Practice and Exploration in Document Service [M].Shanghai：Shanghai Scientific and Technological Literature Publishing House，2012.
[2] Chen Shunzhong. Promoting resource sharing through consortia: A case study of Shanghai Library[J].Interlending & Document Supply，2013，41（2）：59-61
[3] Yu Xinghua. Library Consortium—21 Century the Trend of Library Development[J]. Heilongjiang Scientific Information,2012(12):153
[4] Jia Ping etc. China Direct: Successful practice of Cross-domain information service between China and German[J].Library Development，2010（11）：70-73
[5] Shanghai Information Resource Network[EB/OL].[2013-09-06]. http://www.libnet.sh.cn/newsirn/
[6] Subito[EB/OL].[2013-09-06].http://www.subito-doc.de/
[7] WorldCat Resource Sharing[EB/OL].[2013-09-06].http://firstsearch.oclc.org/
[8] CALIS eduChina[EB/OL].[2013-09-06]. http://www.calis.edu.cn/