The Resource Sharing and Cooperative Development of Smart Libraries in Asia

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【Abstract】

The main purposes of this study are first, to define and explore the notion of smart library, and second, to look at the general development of smart libraries in Asia, and furthermore, to examine how opportunities for cooperative development may emerge in the context of the development of smart libraries. One particular example analyzed in this study is concerned with the resource sharing and cooperative development between China and other Asian countries and regions.

Keyword

Asian library；Smart library；Resource sharing；Cooperative development

With the rapid economic development in Asia, Asian cultural activities, including libraries, have also gained considerable development. With the development of social informatization and smart cities, the smart library is gradually becoming a new development tendency for Asian libraries and has created new conditions for the in-depth cross-national resource sharing and cooperation of libraries, as well as bringing new development opportunities.

The Development of Smart Libraries in Asia

What is the smart library? I think that we can make the following definition: "Smart library is the concept and practice of the modern library sustainable development, based on digital, networked and intelligent information technology, with interconnection, high efficiency and convenience as the main features, and green development and digital services for the general public as the essential pursuit".

Smart library and digital library are intrinsically linked, and each has having their own characteristics. In terms of external features, both smart library and digital library are based on digitization and networking, but the smart library has already combined these characteristics with such inherent features and essential pursuits as clustering, integration, collaboration, green development, and serving the general public. Smart library is the product of library digitization, networking, intelligence, cultural diversity and social informatization interacting with each other at a specific historical stage, and it is the continuation,

integration and sublimation of the philosophy and practice of the digital library development. If digital library still remains to a certain extent at the level of the library physical structure, then smart library has developed to the point of library chemical fusion, focusing its attention on excellent library services and high-quality management with IT support, which is represented by interconnection, high efficiency and convenience. Compared with digital library, it has reached a new height of scientific development. Smart library is not a local solution of the library, but the comprehensive solution. In the process of the library development, the digital library, based on the traditional library, was once the supplementary elements and alternative elements of library service and management development. It is the transitional phase of the library development and has brought about the partial changes of library services and management. However, smart library relies on digital, networking and intelligent technology to enhance the management wisdom, and has gradually become the dominant model of library services and management, as well as the top-level design of future libraries. From the development of library informatization focusing on technology, to the digital library construction based on quantified technological development, and then to the entirely intelligent smart library, in fact, in its development process, the library has gradually achieved a fundamental transformation in nature based on the accumulation of the amount of technology. It means a shift from focusing on technological transition to the comprehensive, coordinated and sustainable development of the library, from the transition with

digital information as an inception to the soul and library green development and the essence of people-orientation, which is the vision of the smart library development in pursuit of an increasingly intelligent library. Another term for the smart library is "intelligent city"; a concept stresses technology and is closer to that of the digital library, which is not what this paper will deal with.

The idea and practice of the smart library emerged first in European and American university libraries, public libraries and museums. Around 2003, a new service provided by the Library of the University of Oulu, Finland was known as "SmartLibrary", which was part of the program named as "Rotuaari project". (*Dynamic localisation of books & collections*, n.d.) Of Scholars from the Library of the University of Oulu that published the conference paper "SmartLibrary: Location-Aware Mobile Library Service", suggesting that the smart library is a location-aware mobile library service, which helps users to find books and other material from the library. (Aittola, Ryhänen, & Ojala, 2003) At the same time, Queensland, Australia also explored the relationship between the smart library and smart community building. (Raunik & Browning, 2003) Prior to 2004, a number of libraries and museums in Ottawa, the capital of Canada, and many other university and public libraries had established a library consortium named as "Sm@rtLibrary" sharing a search engine to provide readers with one-stop services. (*Can't Find What You're*, n.d.) In 2004, Miller, Reus, Matzke, Koziol, & Cheng presented a research paper at an international conference on the smart library, entitled "Smart Libraries: Best SQE Practices for Libraries with an Emphasis on Scientific Computing". The authors believe that a smart library utilizes a variety of SQE (Software Quality Engineering) practices aimed at keeping users and library developers alike from making various mistakes; mistakes in usage, in documentation, in configuration and installation, in dealing with API changes, mistakes leading to performance degradation and/or parallel deadlock and so on. (Miller, et al.) It is obvious that the research from the world library community on the smart library has turned from technology to services, management and community development, reflecting the essential pursuit of the smart library. In the first decade of the 21st century, Asian countries also began to expand the research of intelligent libraries to the in-depth research and practice of the smart library. For instance, the Shanghai Library was the first to provide the mobile phone library service. With the application of RFID (Radio Frequency Identification) technology, the Taipei Municipal Library has set up a self-service smart library, and conducted exploration on the green library design and construction in Taipei City's Bei-Tou Branch Library. (Huang, 2009) As the country with the highest Internet speed in the world committed to ubiquitous wireless urban construction, the National Library of Korea built a national digital library in 2009 and began to provide network services and collect digital materials in 2010. In 2006, Singapore developed the Intelligent Nation 2015 project, which largely focused on information and communication infrastructure construction and its application in various fields, including, of course, libraries.

The Development of Resourcing Sharing and Cooperation between China and other Asian Countries and Regions

Resource sharing and cooperative development is the theme of development in Asian libraries in recent decades. Although the content and manner of the development have all kept up with the times, each era had its different focuses.

In May 1992, in the mainland China, the first international seminar on the theme "Modern Collection Development and Resource Sharing" was held in Xi'an. The participants had a wide-ranging and in-depth discussion on such issues as the history and current situation of obstacles to collection development and resource sharing, as well as countermeasures to be taken in the future. The Chinese and foreign participants in the seminar reached the consensus that libraries in world today are generally facing the two basic contradictions between the need for the growth of collections and the shortage of funds, and the demand for documents and the lack of library collections. In this case, it is an inevitable trend of historical development to build resource support system and promote the implementation of resource sharing project. As Shen Pao-huan, a delegate from Taiwan pointed out: "Resource sharing is the new trend of library development". Lin Hongtu, a library director from Singapore highly praised the success of the seminar at the closing ceremony. In December 1993, the first Cross-strait Seminar on Library and Information Science was held at the East China Normal University in Shanghai. The organization committee set up five discussion outlines, including the library and information development in cross-strait and Hong Kong regions, library and information education, library management and use, classification and cataloging of library materials, library automation, information networks and information retrieval, many of which are related to resource sharing and cooperation. The idea exchange between PhD candidates of library and information science on both sides of the straits was a major feature of this forum. Nine PhD candidates from the Beijing University, Wuhan University and National Taiwan University held a symposium. After two decades of development, many of these doctoral students have become department chairs and institute directors of the Wuhan University and Nankai University in Mainland China, and the National Chengchi University and Shih Hsin University in Taiwan. (Wang, 2000)

In the last decade or so, resource sharing and cooperation have become important new ideas in mainland China's public library services and resulted in numerous innovative services and service carriers. In April 2002, the Ministry of Culture and the Ministry of Finance launched the "National Cultural Information Resource Sharing Project". By using modern information technology, this project conducts digital processing and integration of cultural information resources, and through the network systems of different carriers, it has achieved the sharing of cultural information resources among different regions, provinces and cities. Since 2006, many resource sharing cases have received Innovation Awards and Stars Awards issued by the Ministry of Culture, which have continued for over a decade, such as the "China Regional Libraries

Network" among the first Innovation Award-winning projects. This network was launched in June 2006, and jointly established by the Shenzhen Library, the Library of Fujian Province, Tianjin Library, the Library of Liaoning Province, Hunan Library and Shanghai Library, and the network center is located in the Shenzhen Library. It was officially launched in December 2000 and became the first online union cataloging center in mainland China with 24-hour real-time data uploading and downloading, and implementing the 48-hours registration system and the cataloger system. Another example is the "Research on the Innovative Operation and Application Mode of the Cultural Information Resources Sharing Project in Shandong Province" in the third Innovation Award-winning projects. Based on the management service platform of the Shandong Cultural Information Resource Sharing Project, with digital libraries and resource mirror sites as the core, the Internet and satellites as the main transport channels, the network streaming media distribution as the main means of transmission, and the primary one-stop service platform and public Internet cafes, video theaters and online libraries as service terminals, this research has established a five-level network system and a comprehensive public cultural operation service system, covering all the cities, counties and rural areas in the Shandong Province. The system has covered more than 90,000 rural areas and communities, serving over 50 million people in a year, and realized the sharing and construction of cultural resources in the Shandong province. There are also quite a few successful cases of resource sharing and cooperative development in other Chinese provinces and cities, such as the Digital

Library Consortium in the Pearl River Delta Resource Sharing and Public Services of the Guangdong Provincial Zhongshan Library, The Collaborative Online Reference Services of the Shanghai Library, the cross-system resource sharing consortium of the Jilin province, etc, which have all conducted valuable experiments on resource sharing and cooperative development. Since the opening of the Shanghai Library's new building, it has conducted active book exchange activities with libraries throughout the world, and established book exchange collaboration with more than 150 libraries and 30 research institutions in over 20 countries and regions. (Wang, 2010)

In 2002, based on its international book exchange program, the Shanghai Library began to establish the "Window of Shanghai" in overseas libraries, which has become an integral part of the China Book International (CBI) project. By June 2012, the Window of Shanghai has spread into more than 80 public libraries, university libraries, the Confucius Institutes and other professional book-collecting and research institutions in 48 countries and regions of the world. The main idea is that the Shanghai Library signs a friendship agreement with partnership libraries for the establishment of the "Window of Shanghai", and then set up special reading areas or sections in these libraries. The Shanghai Library delivers to the partnership libraries the first donation of 500 titles, and donates annually thereafter an additional 100 titles. At the same time, each side supplies what the other needs, thus forming the positive interaction of resource sharing and cooperative development. The Shanghai Library has donated to its partners over

40,000 copies of various books and documents. Among the 80 partnership organization, there are six in Asia, including the Singapore National Library Board (participated in January 2003), Osaka Central Library in Japan (participated in September 2009), Hongqiao International Library, Changning District, Shanghai, China (participated in March 2010), Shanghai Library (participated in October 2010), and the Central Library of the Kyung Hee University International Campus (participated in June 2012). The "Window of Shanghai" in the future will be connected to the world's libraries through the Internet, and deliver the Shanghai Library's electronic resources, exhibitions, interlibrary loan, and online reference services to various regions and countries in Asia and the world. (Shanghai Library, 2012)

The first international library forum was held in Shanghai in 2002, with the theme "Knowledge Navigation and Library Services". One of the sub-themes was "library cooperation and resource sharing". Dr. Tony Ferguson, Director of the University of Hong Kong Library presented the paper "Digital Library Consortia in the 21st Century", discussing the many difficulties and challenges facing the Joint University Libraries Advisory Committee funded by the University Grants Committee of the Hong Kong SAR Government, including such issues as the development of eight university members and the consortium in the competitive environment and how to integrate into Asian consortia and international consortia. From the perspective of the digital strategy of international cooperation, the American scholar Ching-chih Chen discussed the global cooperation and resource sharing of libraries in the transformation towards knowledge

services. Mr. Kai Cheong Lau from the Singapore National Library Board gave an introduction to the experience of Singapore libraries in resource sharing and library services, and he pointed out that in order to create a future of information for Singapore and Southeast Asia Union countries, Singapore libraries established a connection with the Southeast Asian countries and the world, created the infrastructure of library services and resource sharing, and established contacts between the librarians in various countries through the Internet. In addition, scholars from various countries conducted in-depth discussions on such issues as database construction, online cross-language information access and retrieval, interlibrary loan, digital library consortium, resource sharing in the network environment, new models of cooperation through the consortium of university libraries and public libraries. (Ferguson & Chan, 2002)

The development of intelligent technology and the innovation of cluster collaborative management have improved the quality of resource sharing and cooperative development, and at the same time, raised many new questions facing libraries. If we can say that publications are going through an in-depth integration in the digital environment, that is, making pictures, sounds, actions, interactions and other elements into one body to tell stories to the reader, then, the library will also face the problem of a cross-language, cross-carrier, multi-media, cross-network and in-depth integration of books and databases, in order to provide readers with innovative forms of services. The development of triple play intelligence technology has created the conditions for this in-depth integration. Mobile communication

technology, various types of APPS and cloud computing have provided IT environment and IT support for the library to integrate cluster of innovative and comprehensive service system platforms. In this information environment, the Singapore National Library has initiated the 2020 Mission and Vision. The mission is to provide a trusted, accessible and globally-connected library and information service to promote a knowledgeable and engaged society. The vision is to be an inspiring beacon of lifelong learning bringing knowledge alive, sparking imagination and creating possibility for a vibrant and creative Singapore. (Gao, 2012)

The Prospects of Resource Sharing and Cooperation in Asian Libraries in the Context of the Smart Library Development

In the context of the smart library development, Asian libraries are showing infinite energy, which can be seen from the IFLA General Conference to be held in Singapore in 2013 and its theme. Accordingly, we can also review the themes of the IFLA General Conference in recent years, and discover the trajectory of the global smart library development.

Table 1

The Themes of IFLA General Conference 2010-2013

		Congress Theme	Date	Location
76th		Open access to knowledge - promoting sustainable progress	2010-8-10~15	Gothenburg, Sweden
77th		Libraries beyond libraries: Integration, Innovation and Information for all	2011-8-13~18	San Juan, Puerto Rico
78th		Libraries Now! - Inspiring, Surprising, Empowering	2012-8-11~17	Helsinki, Finland
79th		Future Libraries: Infinite Possibilities	2013-8-17~23	Singapore

The theme of the 76th IFLA General Conference held in Gothenburg, Sweden was open access. The implementation of the idea of sustainable development into library services is exactly the soul of smart libraries, which shows the great vision and positive response of the global library community in today's environment of IT development, and reflects the philosophy and practice of the smart library as sustainable modern library development.

The theme of the 77th IFLA General Conference

held in San Juan, Puerto Rico was libraries beyond libraries: integration, innovation and information for all, which shows the new transcendence of the smart library in its development process, that is, the innovation-driven integration, clustering, collaboration and sharing of library resources, and reflects the characteristics of efficient development of the smart library.

The themes of the 77th IFLA General Conference held in Helsinki, Finland, and the 78th

IFLA General Conference held in Singapore were respectively "Inspiring & Surprising" and "Infinite Possibilities", showing the self-confidence and effort of the library in the new environment, as well as the ambiguity of future library development and infinite possibilities for development, and reflecting the smart library's development features in ubiquitous interconnection and convenience, with the support of intelligent technology.

Resource sharing and cooperative development in Asian libraries have a long historical and cultural heritage. Theravada Buddhism in ancient India spread to Sri Lanka, Myanmar, Thailand, Cambodia, Laos and China. Mahayana Buddhism spread to China, the Korean Peninsula, Japan, Vietnam and China's Tibetan and Mongolian regions. In 1877, Ferdinand von Richthofen, a German geographer, put forward the concept of Silk Road in his book China. This ancient network of communication through deserts, grasslands and sea, not only connected such Asian countries as China, Japan, Mongolia, Afghanistan, Pakistan, India, but also extended to Africa and Europe, becoming the symbol of the Eastern and Western economic and cultural exchanges. It is known as the world's longest, oldest, and highest network of communication. In the Sui and Tang dynasties, there was also a road of books between China and Japan. (Wang, 2003) Languages and documents are the important carriers of human civilization. In Asia, Japan, Korea, Vietnam and other countries imitated and duplicated Chinese classics in different periods and covering different ranges, resulting in the formation of Japanese edition of Chinese classics, Korean edition of Chinese classics and Vietnamese edition of Chinese classics, of which

the most abundant are Japanese edition of Chinese classics. (Li, 1999; Wang, 1996; Yan, 2007)The communication and transmission of documents has enabled the knowledge of human civilization to be shared and preserved. The history of these cultural exchanges has established cultural traditions and ties for the resource sharing and cooperative development of libraries in Asian countries.

On the Second International Library Forum held in Shanghai in 2004, Kiyoshi Nakano from the Graduate School for Creative Cities, Osaka City University, Japan, pointed a number of questions occurring in the common use of the reader registration card in the library services, which in fact, are the questions of how the library's reader cards can be interconnected with other cards, such as the ATM card of a bank. It is actually the issue of interconnection between cards, and between cards and people in the connected features of the smart library. It is a difficult problem that needs to be solved for the ubiquitous library services in the future. Kari Lämsä from the Helsinki City Library in Finland suggested the new concept of "the city bank of immigrants". The so-called Information Bank is a network service supported by the Helsinki International Cultural Center and the Helsinki City Library. This service adopted 12 languages most commonly used by immigrants in Finland, reflecting the characteristics of the cross-language information services with interconnected networks and databases of the smart library. (Kiyoshi, 2004; Lämsä, 2004)

At the 5th Shanghai International Library Forum held in 2012, Ching-chih Chen, Professor Emeritus, Simmons College, Boston, pointed out in her keynote speech: "In the environment of open and use-driven

innovation for experimenting and validating the future Internet-enabled services as seen in smart cities, libraries are far from catching up with this development to respond to the complex and difficult challenges of our exciting time. The Internet has leveled the playing field and has empowered individuals with ideas for innovation to all kinds of experimentation. Librarians and information professionals are certainly included to grab these exciting opportunities." (Chen, 2012) The smart libraries of the future need smart librarians, and these librarians not only need a variety of skills and the spirit of dedication, but should also demonstrate to business and government decision makers the irreplaceable role of libraries. (Johnson, 2012) Smart librarians will play a central role in the future development of the smart library. In order to adapt to the development of digital, networked and intelligent information environment, to reflect the features of interconnection, efficiency and convenience, and to understand the essential pursuit of green development and digital services to the general public, librarians should have eight abilities, including cross-media literacy, cross-cultural communication skill, cross-language reading and speaking ability, cross-team collaboration skill, inter-carrier integration power, inter-network search skill, multi-disciplinary mining capability, and cross-age learning capacity.

On January 2, 2011, Brian T. Sullivan, an instructional librarian at Alfred University, U.S.A., published an article entitled "Academic Library Autopsy Report, 2050". He writes, "The academic library has died. Despite early diagnosis, audacious denial in the face of its increasingly severe symptoms led to its deterioration and demise. The academic library died alone, largely neglected and forgotten by a world that once revered it as the heart of the university". In the author's view, "First, fully digitized collections of nearly every book in the world rendered physical book collections unnecessary. Individual students now pay for subscriptions to any of several major digital-book vendors for unlimited access. The books may be viewed online at any time or downloaded to a portable device. Second, library instruction was no longer necessary. To compete with a new generation of search engines, database vendors were forced to create tools that were more user-friendly, or else risk fading into obscurity. Third, reference services disappeared. They were replaced by ever-improving search engines and social-networking tools." The article ends with the following sharp remarks: "It is entirely possible that the life of the academic library could have been spared if the last generation of librarians had spent more time plotting a realistic path to the future and less time chasing outdated trends while mindlessly spouting mantras like "There will always be books and libraries" and "People will always need librarians to show them how to use information. We'll never know now what kind of treatments might have worked. Librarians planted the seeds of their own destruction and are responsible for their own downfall". This article triggered uproar in library communities around the world. (Zhao & Chen, 2012)

Although there are talks about the extinction of academic libraries, currently, there are still not sufficient databases and digital collections both inside and outside the library community to fully

meet the requirements of researchers, and many professions and industries still need traditional collections. Digital media have formed an excess of information, and the majority of readers may have a sense of loss, which gives the possibilities for libraries and librarians to provide services. Librarians' reference services and professional functions in information discovery, filtering, screening, organizing, mining, retrieval, analysis, sorting and navigation will not disappear because of the development of information technology. Various kinds of knowledge and information in the Omni media require integration and interconnection, which means librarians' professional efforts are required to integrate the knowledge with relevant contents and themes. It is necessary to organize a variety of dynamic information, including texts, books, sounds, images, data, etc. in order to acquire the competence and skills of research and management for discarding the dross and selecting the essential, getting rid of the false and retaining the true, and getting from one to the other, from the surface to the center, from chaos to order, from the miscellaneous to the special, from the implicit to the explicit, from the general to the specific, from the isolated to the associated, from the individual to the integrated. As a result, readers will be able to receive the organized and integrated information services related to specific theme from the fragmentary ocean of information. This will enhance the quality, brand and status of library services. The dispersion and horizontal features of the digital society require librarians to have more comprehensive knowledge and skills, so that they may help readers solve problems anywhere and anytime, and provide versatile golden key services. The age of Omni media and the digital age allow readers to decide for themselves what to read, and the historical mission of librarians is to attract readers with their own quality.

The status of Asian economy in the world is on the rise. As the principal source of world civilization, the development of smart libraries in the future will bring more opportunities for the resources sharing and cooperative development in Asian libraries. If European and American libraries led the global library development in the 19th and 20th centuries, then the 21st century will see a multi-polar development of global librarianship, with the common prosperity of Asian libraries, European libraries and America libraries. Asian libraries will make new contributions to the development of international librarianship in the process towards smart libraries.

Smart library has the characteristics of interconnection, high efficiency and convenience, of which the most essential is interconnection, which is demonstrated as the interconnection and integration of books, readers, libraries, networks and databases. As a new form of the future library development, with the digital, networking and intelligent IT support, the smart library will establish a ubiquitous library network through the integration of resources, cluster platforms and collaborative services, and will promote the development of librarianship towards a sustainable and healthy development, through the green development ideas and practices, as well as the essential pursuit of digital services for the general public.

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References

Aittola, M., Ryhänen, T., & Ojala, T. (2003). SmartLibrary: Location-aware mobile library service. In L. Chittaro (Ed.), *Human computer interaction with mobile devices and services:5ᵗʰ international symposium* (pp. 411-415). New York: Springer.

Can't find what you're looking for? Using smart library. (n.d.). Retrieved November 15, 2011, from http://biblioottawalibrary.ca/en/main/find/catalog/looking/smart

Chen, C. C. (2012). Global collaboration and sharing in this omni-media digital age: Challenges to libraries. In Shanghai Library (Ed.), *Smart cities and library services: The proceedings of the sixth Shanghai international library forum* (pp. 3-17). Shanghai: Shanghai Scientific and Technological Literature Publishing House.

Dynamic localisation of books and collections: Second version of smart library is being tested. (n.d.). Retrieved November 15, 2011, from http://virtuaalikampus.oulu.fi/English/smartlibrary.html

Ferguson, A. W., & Chan, G. (2002). Digital library consortia in the 21st century: The Hong Kong JULAC case. In Shanghai Library (Ed.), *Knowledge navigation and library services: Proceedings of the first Shanghai international library forum* (pp.249-362). Shanghai: Shanghai Scientific and Technological Literature Publishing House.

Gao, V. X. (2012). A reviewing Chinese info literacy programme at National Library of Singapore: A case study of the training provided for students taking "China Studies". In Shanghai Library (Ed.), *Smart cities and library services: The proceedings of the sixth Shanghai international library forum* (pp.316-327). Shanghai: Shanghai Scientific and Technological Literature Publishing House.

Huang, Y. H. (2009). *Taipei City Library establishes a self-service smart library by the application of RFID.* Retrieved November 15, 2011, from http://tech.rfidworld.com.cn/2009_6/2009618954168830.html [Text in Chinese]

Johnson, I. M. (2012). Smart cities, smart libraries, and smart librarians. In Shanghai Library (Ed.), *Smart cities and library services: The proceedings of the sixth Shanghai international library forum* (pp. 30-36). Shanghai: Shanghai Scientific and Technological Literature Publishing House.

Kiyoshi, N. (2004). Various problem to be occurred on mutual usage of service recipient registration cards. In Shanghai Library (Ed.), *City development and library services: Proceedings of the second Shanghai international library forum* (pp.186-193). Shanghai: Shanghai Scientific and Technological Literature Publishing House.

Lämsä, K. (2004). Info bank for immigrants. In Shanghai Library (Ed.), *City development and library services: Proceedings of the second Shanghai international library forum* (pp.297-299). Shanghai: Shanghai Scientific and Technological Literature Publishing House.

Li, R. (Ed.). (1999). *A bibliography of Chinese books in Japanese libraries.* Hangzhou: Hangzhou University Press.

Miller, M. C., Reus, J. F., Matzke, R. P., Koziol, Q. A., & Cheng, A. P. (2004). *Smart libraries: Best SQE practices for libraries with an emphasis on scientific computing.* Retrieved November 15, 2011, from https://e-reports-ext.llnl.gov/pdf/314914.pdf

Raunik, A., & Browning, R. (2003). *Smart libraries build smart communities in Queensland.* Retrieved November 15, 2011,

from http://conferences.alia.org.au/online2003/papers/raunik.html

Shanghai Library. (Ed.). (2012). *A decade of the window of Shanghai: Commemorating the 10th anniversary of the Shanghai library's "Window of Shanghai" international cultural exchange program* (2002-2012). Shanghai: Shanghai Library.

Wang, B. (Ed.). (1996). *A bibliography of block-printed Han classics in Chinese libraries*. Hangzhou: Hangzhou University Press. [Text in Chinese]

Wang, S. (2000). *Selected papers on library science and philology*. Shanghai: Shanghai Bookstore Press. [Text in Chinese].

Wang, S. (Ed.). (2010). *What is the public library*. Shanghai: Shanghai: Shanghai Academy of Social Sciences Press. [Text in Chinese]

Wang, Y. (2003). A study of Sino-Japan road of books. Beijing: Beijing Library Press. [Text in Chinese]

Yan S. (2007). *A bibliography of Han classics in Japanese libraries*. Beijing: Zhonghua Book Company. [Text in Chinese]

Zhao, E., & Chen, B. (2012, April 20). University library: Encounters autopsy. *People's Daily*, p.18. [Text in Chinese]