
AI translation · View original & related papers at
chinaxiv.org/items/chinaxiv-202304.00001

Development Practices and Strategies for Modern English-Language Sinology Periodicals in the Collections of the National Science Library, Chinese Academy of Sciences: A Postprint

Authors: Zhuang Xin

Date: 2023-04-01T16:16:05+00:00

Abstract

[Purpose/Significance] To fully reveal the documentary and research value of the English-language newspapers and journals on modern China studies held by the National Science Library, Chinese Academy of Sciences, and propose specific utilization strategies to provide reference for similar collection development in domestic libraries. [Method/Process] Through case analysis, based on introducing the current development practices of English-language newspapers and journals on modern China studies at the National Science Library, Chinese Academy of Sciences, and addressing existing challenges, planning strategies for the development and utilization of special collection resources of English-language periodicals on modern China studies are proposed. [Results/Conclusion] With the emergence of the ubiquitous knowledge environment and the development of information and network technologies, the National Science Library, Chinese Academy of Sciences should promote scientific development planning, increase fundraising efforts, improve the talent cultivation system, enhance the utilization efficiency of special collections, leverage the advantages of its characteristic collection resources on Sino-foreign exchange history, and achieve co-construction and sharing of collection resources.

Full Text

Research on the Development Practice and Strategy of English-Language Periodicals on Modern Chinese Studies at the National Science Library, Chinese Academy of Sciences

Author: Zhuang Xin (ORCID: 0000-0002-8293-8291), Librarian, Postdoctoral Researcher, Email: zhuangxin@mail.las.ac.cn

Affiliation: National Science Library, Chinese Academy of Sciences, Beijing 100190

Received: June 18, 2020; **Revised:** November 22, 2020; **Pages:** 133-138

Abstract

[Purpose/Significance] This article aims to fully reveal the documentary and research value of the modern Chinese studies English-language newspapers and periodicals collected by the National Science Library, Chinese Academy of Sciences, and propose specific utilization strategies to provide reference for the development of similar collections in domestic libraries. **[Method/Process]** Based on case study analysis, this paper introduces the current development practices of the center's modern Chinese studies English periodicals, and proposes planning strategies for developing and utilizing these special collection resources in response to existing challenges. **[Result/Conclusion]** With the emergence of the ubiquitous knowledge environment and the development of information and network technology, the National Science Library should promote scientific development planning, increase fundraising efforts, improve personnel training systems, and enhance the utilization efficiency of special collections, thereby leveraging the advantages of its characteristic resources on Sino-foreign exchange history and achieving co-construction and sharing of collection resources.

Keywords: special collection development; research library; development practice; strategy research

Classification Number: G250

DOI: 10.13266/j.issn.0252-3116.2020.24.015

2. Current Development Status of the Center's Modern Chinese Studies English Periodicals

The center attaches great importance to the preservation, organization, and utilization of modern Chinese studies English periodicals, actively providing

information services, knowledge services, and subject services for readers, which has laid a solid foundation for subsequent development and utilization.

2.1 Information Services

2.1.1 Consulting Services The center guides readers to understand library services and usage through on-site consultation, promotional brochures, telephone or email responses, addressing various questions encountered by readers in searching for and using modern Chinese studies English periodical literature.

2.1.2 Document Services The center provides retrieval catalogs, paper periodicals, and other document contents, supporting reservation services, on-site borrowing, and document delivery for modern Chinese studies English periodicals. Specifically, for catalog retrieval services, the *Catalogue of Foreign Language Periodicals in the Library of Chinese Academy of Sciences* compiled by the Library of Chinese Academy of Sciences (the center's predecessor, renamed National Science Library in 1985) in 1981, and the *Union Catalogue of Western Language Serial Publications of Chinese Academy of Sciences* published by Science Press in 1989, provide paper-based catalog queries. The library's electronic query system also includes some English periodicals, facilitating readers' understanding of collection distribution. For document borrowing, readers can fill out request forms for specialized librarians to retrieve materials from the stacks for on-site reading. During reading, readers may transcribe needed content in pencil under preservation guidelines or request scanning services from reproduction staff. Readers unable to visit the library can contact document delivery librarians to submit required periodical call numbers, and specialized staff will locate, scan, and email the requested documents according to reader requirements.

2.1.3 Reader Services Building on providing high-quality and efficient borrowing and retrieval services, the center offers growth-oriented learning spaces and actively organizes special collection exhibitions, education and training, book recommendations, popular science lectures, and other activities. The center actively innovates service methods by promoting special collection resources through new media platforms such as WeChat, Weibo, and TikTok, while constructing digital resource platforms and building smart service environments based on network and information technology.

2.2 Knowledge Services

2.2.1 Knowledge Organization The center conducts identification, association, and analysis of interdisciplinary knowledge in modern Chinese studies English periodicals. For example, the center's "Research on Resource Development and Services of Inaugural Issues in the Collection" project involves preliminary organization of some modern Chinese studies English periodicals, providing readers with original inaugural issue documents while selecting and trans-

lating some inaugural statements to lay a solid foundation for further language translation and in-depth research work, thereby expanding the development and utilization scope of special collections.

2.2.2 Knowledge Discovery Professional librarians conduct research on the special collection of modern Chinese studies English periodicals, systematically analyzing, mining, discovering, and utilizing knowledge within them. They organize and extract knowledge content on specific topics and issues to serve researchers' scientific processes. Simultaneously, they conduct knowledge resource sharing and popular science promotion activities through offline exhibitions, popular science tweets, and online video recordings.

2.3 Subject Services

2.3.1 Subject Resource Construction The center's subject librarian team was established in June 2006, with each research institute in the Chinese Academy of Sciences equipped with one professional subject librarian with similar disciplinary backgrounds, primarily providing subject services in natural science fields. With the trend of interdisciplinary integration, the center has also introduced professional personnel in recent years to advance cross-disciplinary service capacity building. Taking modern Chinese studies English periodical development as an example, center librarians focus on mining corresponding disciplinary or interdisciplinary literature resources from professional and comprehensive periodicals based on research conditions and development trends, and participate in corresponding subject resource construction.

2.3.2 Embedded Research Support Due to the specialized and comprehensive nature of modern Chinese studies English periodicals, center librarians conduct targeted collection, research, and evaluation of relevant subject intelligence and literature resources to improve utilization efficiency and embed themselves in researchers' work to provide personalized subject services. For example, they research the complex development process of modern China's popular science undertakings and the origins of biology and other disciplines as presented in *China Journal* (1923-1941, originally *The China Journal of Science and Arts*). They also examine historical documents about Chinese knowledge in *Philosophical Transactions of the Royal Society*—the world's first true natural science journal—to explore the influence of ancient Chinese scientific and technological knowledge on modern Western fields such as natural history, astronomy, chemistry, and medicine.

3. Challenges in Developing the Center's Modern Chinese Studies English Periodicals

In the ubiquitous knowledge environment, libraries face the urgent task of transforming from resource services to knowledge services [4]. The question of how to transform the knowledge value and historical value of special collection resources to serve scientific research construction also faces new challenges and difficulties. Taking the development of modern Chinese studies English periodical literature at the National Science Library as an example, obstacles arising from language and knowledge structure differences, as well as issues of special collection preservation and restoration, require careful consideration.

3.1 Development Planning Needs Improvement

The development of modern Chinese studies English periodicals is a professional, long-term project involving multiple departments and disciplines, encompassing complex and specific practical operations such as inventory classification, cataloging and organization, periodical restoration, literature research, and periodical digitization. Regarding management and utilization, the center has long focused on preservation work. In recent years, through introducing specialized talent, the center has initiated knowledge discovery and knowledge association work on modern Chinese studies English periodicals. However, current efforts remain relatively fragmented, requiring holistic, unified, and standardized development planning and sound working mechanisms to promote clear responsibilities and coordinated cooperation among departments in long-term work.

3.2 Funding Support Needs Increase

The center attaches great importance to the development and utilization of modern Chinese studies English periodical resources, though specific work remains to be gradually carried out. The preservation and restoration, digitization, data resource platform construction, and service operation of modern Chinese studies English periodicals all require large-scale, sustained financial support. Current funding limitations exist, such as the absence of a dedicated rare Western-language books room with constant temperature and humidity control and air filtration systems, numerous rare Western-language books awaiting restoration, and the need for long-term consideration of funding support for digitization work.

3.3 Personnel Expertise Needs Coordination with Development Needs

Traditional librarians have made outstanding contributions to the preservation and utilization of English periodicals on Sino-foreign exchange history and will continue to play important roles. However, due to their relatively complex knowledge structures and professional backgrounds, which mostly emphasize library and information science and acquisition/cataloging work, they find it

difficult to deeply explore and promote the value of modern Chinese studies English periodicals. Therefore, relying solely on traditional librarians' professional services will be insufficient to meet the needs of research libraries in providing knowledge services in the new era.

3.4 Resource Development Rate Needs Improvement

Currently, the documentary and disciplinary value contained in such collections has not been fully revealed and publicized, with substantial work remaining to be completed in terms of in-depth research and mining of existing collection potential. Meanwhile, the center's English periodicals on Sino-foreign exchange history are preserved and developed according to back-issue management methods, providing services such as reservation-based on-site borrowing and document delivery. These have not yet been made available on broader, more convenient new media platforms, making it difficult to adapt to readers' reading habits in the big data era, and the resource development and utilization rate needs improvement.

4. Development Strategies for the Center's Modern Chinese Studies English Periodicals

4.1 Develop Scientific Development Planning and Clarify Development Ideas

4.1.1 Develop Clear and Effective Development Work Plans First, the center needs to systematically construct and develop theoretical systems for characteristic collections, establishing unified, standardized, and clear criteria to define categories of modern Chinese studies English periodicals, laying the foundation for greater development and utilization. Second, it should collect similar documents to concentrate and improve the collection, forming more sustainable special collection advantages, resource sharing plans, and development strategies. During the census of modern Chinese studies English periodical literature, the center can compare with existing paper and electronic resources from the National Library of China and CASHL to determine key resources for development. Third, it should formulate clear and specific subject service plans from the perspective of modern Chinese studies English periodical special collection development. For example, it can build thematic cluster-based special collection knowledge repositories, promoting development work in research areas such as "China in Western Eyes Since the 17th Century," "Chinese Studies Library," "Chinese and Foreign Science and Technology Periodicals," and "Sino-Foreign Science and Technology Exchange History Documents."

4.1.2 Develop Targeted Strategies Based on Domestic and International Library Collection Utilization First, for documents not yet digitized or reprinted, development and utilization can proceed through reprinting,

digitization, and in-depth thematic research. For example, based on domestic reprint development of modern Chinese studies English periodicals, the center can determine different development levels and specific mining priorities for similar collections to formulate development strategies that create unique advantages. See Table 1 .

Table 1 shows that institutions such as the National Library of China and Shanghai Library have relatively high reprint development levels for their modern Chinese studies English periodical collections, with development products primarily consisting of original reprints, some with catalog indexes or professional research results compiled by researchers. In contrast, the center's valuable periodicals such as *The Chinese Students' Monthly* have not yet been reprinted by domestic or foreign libraries and publishing institutions, indicating high publication value. Second, for collection resources already included in databases or reprinted, the development focus can shift to content mining and thematic promotion. Third, for other English periodicals on Sino-foreign exchange history, development can fully utilize existing research results while deeply mining thematic content. When developing collections such as *Chinese Repository*, *The Chinese Recorder and Missionary Journal* (1867-1941), and *Millard's Review of the Far East* (1917-1941, 1945-1953), the center can make full use of existing catalogs, reviews, and research to conduct in-depth development in specific fields, such as exploring the historical stories behind natural science reports in *Chinese Repository*—how Western navigation and mapping technologies entered China, tea mountain expeditions, and natural history investigations—to promote characteristic thematic collection outreach.

4.2 Increase Fundraising Efforts to Provide Continuous Support for Special Collection Development

4.2.1 Apply for Special Funds Actively cooperate with the center, National Library of China, and other relevant institutions to apply for special budgets or project funding for the center's modern Chinese studies English periodical literature.

4.2.2 Develop Modern Chinese Studies English Periodicals Through Cooperation Several approaches exist: **Inter-library cooperation.** Cooperation among libraries facilitates full utilization of local information resources, integration of developed resources, and promotion of resource co-construction and sharing, such as the various forms of library consortia popular in the United States. **Library-publisher cooperation.** For example, the University of Michigan Library's comprehensive cooperation with its press forms three main institutions: University of Michigan Press, Michigan Publishing Services, and Deep Blue Repository, publishing academic and educational materials in various formats [5]. **Library-commercial website cooperation.** For example, OCLC's cooperation model with Google, where OCLC member libraries open the WorldCat database to Google, making OCLC library resources accessible

from non-library websites [6]. **Library-foundation cooperation.** For example, the China-America Digital Academic Library (CADAL) project launched in 2000, in which the center participated as an important partner. This project later developed into a global digital library project, receiving strong support from institutions such as the U.S. National Science Foundation [7]. **Library-commercial organization cooperation.** For example, the University of Massachusetts Amherst Libraries' cooperation with Digital Strategies Group saves funds by fully utilizing resources and technology [8].

4.2.3 Establish Multiple Financing Channels and Encourage Participation of Private Forces and Social Capital Guide social celebrities, ordinary citizens, public organizations, enterprises, and others to donate to library special collection development projects, especially financial support [9].

4.3 Improve Personnel Training System to Support Library Scientific Development

4.3.1 Conduct Scientific and Efficient Human Resource Management and Provide Professional Training for All Librarians Combine human resource theory with special collection development practice to stimulate librarians' innovative potential; Continuously conduct training courses to improve overall librarian quality, help each librarian develop learning and growth plans, cultivate interdisciplinary special collection development professional teams, and provide comprehensive talent support for continuous development and utilization work.

4.3.2 Recruit Relevant Talents and Form Excellent Development Teams with Solid and Extensive Knowledge Modern Chinese studies English periodical development has high academic and professional requirements. The center needs to further recruit relevant talents to form an excellent development team with solid and extensive knowledge of Sino-foreign exchange history periodical literature. On one hand, personnel need professional knowledge in library science, Chinese studies, and foreign languages; on the other hand, they need back-issue restoration personnel and digitization development and network construction personnel to promote position matching and overall team collaboration.

4.3.3 Improve Subject Librarian System and Leverage Subject Librarians' Role in Knowledge and Subject Services Taking modern Chinese studies English periodical development as an example, researchers should widely carry out interdisciplinary research, continuously break original disciplinary boundaries, and conduct cross-disciplinary exploration integrating library and information science, journalism, Chinese studies, Sino-foreign exchange history, and science and technology history to play a research support role. Simultaneously, promote improvement of subject librarian training and education mechanisms to continuously enhance theoretical literacy, research capabilities, and

operational skills. For example, cultivate multilingual skills for modern Chinese studies English periodical researchers, promoting learning of dead languages such as Latin and ancient Greek and other minor languages based on mastering modern English and Middle English.

4.4 Enhance Promotion of Characteristic Resources and Knowledge/Subject Services to Improve Special Collection Utilization Efficiency

4.4.1 Promote Integration of Basic Work, Deep Development, and Subject Research to Improve Knowledge Service Levels First, conduct census work on modern Chinese studies English periodicals, verify existing catalogs and supplement information, and improve collection catalogs. Each entry should include periodical title, publication place, publication year, volume and issue numbers, collection call number, etc. Second, conduct secondary processing such as catalogs, indexes, and digests, and tertiary processing such as literature reviews, selected translations, and thematic subject research based on primary processing and organization. For example, compile Chinese and English title catalogs, classified title indexes, and original catalogs and indexes for *China Journal of Science and Arts*, and conduct compilation and digesting of specific content to further conduct literature content research on themes such as “science and humanities” and “nation-state and periodicals.” Third, through knowledge collection, association, and mining, formulate personalized and professional special collection resource development plans, form interdisciplinary personalized knowledge products and knowledge organization, provide high-quality knowledge consulting services to readers, and participate in readers’ research processes. For example, integrate missionary medical history materials from 19th-century English periodicals in China such as *Chinese Repository* and *The Chinese Recorder* with specialized medical periodicals such as *The Chinese Journal of Physiology* (1927-1952) to provide knowledge services for research on “the beginning and development of modern medicine in China,” offering more effective problem-solving solutions for readers’ research through targeted extraction, integration, and fusion of special collection knowledge.

4.4.2 Conduct Various Forms of Reading Promotion Activities and Explore Diverse Practices Actively carry out various forms of literature promotion activities to promote universal popular science. Tell special collection stories through thematic exhibitions to build bridges between general readers and special collection literature, such as holding exhibitions on “Civilization Exchange in 20th-Century Chinese English Periodicals.” Reproduce such special collections for the public through microfilm or reprint publishing, such as reprinting *The Chinese Students’ Monthly*—the first magazine published by Chinese students in the United States. Conduct online or offline thematic lectures and conferences, such as lectures on “19th-Century English Periodicals in China and the Beginning of Modern Chinese Journalism.” Strengthen historical research and popular science work on modern Chinese studies English

periodical literature and promote their cultural connotations, scientific value, and collection stories through WeChat public accounts, Weibo, cultural and creative products, video explanations, and other channels.

4.4.3 Update Development Methods and Broaden Service Approaches

Based on special collection resources and fully leveraging subject librarians' research support role, the center promotes digital construction of modern Chinese studies English periodicals through new carriers and technologies. First, create substitutes for such special collection literature through microfilm photography for promotion and utilization. Second, promote digitization projects for modern Chinese studies English periodicals in phases, formulate unified digitization standards, and build data platforms supporting users in conducting in-depth content mining through keyword retrieval and keyword-related data acquisition. Third, construct digital humanities-oriented knowledge service and subject service platforms using geographic information systems, data visualization, artificial intelligence, and other technologies. For example, present the geographic spatial relationship between treaty port cities and modern Chinese studies English periodical distribution since the 19th century; reconstruct meteorological and hydrological digital models and measured maps based on meteorological data and coastline mapping reported in *Chinese Repository*; generate Chinese botanical knowledge graphs based on scientific investigation materials published by Chinese and foreign botanists in *China Journal*; and promote visualization of historical memory through digital conversion of numerous images of anti-Japanese warfare, diplomatic affairs, and social life published in *Millard's Review*.

Promoting the development and utilization of modern Chinese studies English periodical literature at the National Science Library, Chinese Academy of Sciences, not only facilitates sharing and research utilization of precious resources but also enhances libraries' knowledge discovery and smart service capabilities. Therefore, strengthening special collection development planning, improving personnel allocation, increasing funding support, and expanding development methods are of great significance for enhancing transformation and utilization of special collection resources and building future-oriented research libraries.

References

- [1] Cong Dan. Optimizing the Collection Structure of Foreign Language Periodicals in University Libraries under the Ubiquitous Knowledge Environment[J]. *Library Science Journal*, 2017(10): 17-20.
- [2] Library of Chinese Academy of Sciences. *Catalogue of Foreign Language Periodicals in the Library of Chinese Academy of Sciences*[M]. Shanghai: Guanghai Press, 1981.

- [3] Editorial Committee of Union Catalogue of Western Language Serial Publications of Chinese Academy of Sciences. *Union Catalogue of Western Language Serial Publications of Chinese Academy of Sciences*[M]. Beijing: Science Press, 1989.
- [4] Chu Jingli, Zhao Yan. Library Transformation from Resource Capacity to Service Capacity[J]. *Library and Information Service*, 2019, 63(1): 11-17.
- [5] Michigan Publishing. Our Mission[EB/OL]. [2020-11-18]. <https://www.publishing.umich.edu>.
- [6] Quint B. OCLC Project Opens WorldCat Records to Google[EB/OL]. [2020-11-28]. <https://scholar.google.com/intl/en/scholar/libraries.html>.
- [7] Huang Tiejun, Gao Wen. Progress and Digital Library Standards of the China-America Digital Academic Library Project[C]//Proceedings of International Conference on Digital Libraries for Knowledge Application. Beijing: Scientific and Technical Documentation Press, 2004: 245-249.
- [8] Huang Wenyue, Wang Zheng. Special Collection Construction of Research Libraries in the Digital Environment: Connotation, Trends, and Practical Cases[J]. *Library and Information Service*, 2019, 60(17): 40-46.
- [9] Xu Li. Research on Public Library Information Resource Construction from a Multi-Cooperation Perspective[J]. *University Library Work*, 2016, 173(36): 47-48, 87.

Note: Figure translations are in progress. See original paper for figures.

Source: ChinaXiv — Machine translation. Verify with original.