

Construction of Characteristic Resource Databases in University Libraries in Ethnic Minority Areas: Current Status, Problems, and Countermeasures (Postprint)

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Date: 2023-08-27T00:00:00+00:00

Abstract

[Purpose/Significance] Taking the characteristic resource databases of university libraries in ethnic minority areas as the research object, this study objectively presents the achievements, characteristics, and shortcomings in the construction of characteristic resource databases of university libraries in China's ethnic minority areas since the "Tenth Five-Year Plan" period, providing a research foundation and feasible pathways for further studies on the regional coordinated development of characteristic resources and service to national strategies by university libraries in ethnic minority areas. [Method/Process] Using methods such as literature research and web-based surveys, this study selects 47 university libraries in domestic ethnic minority areas and conducts an investigation and analysis of their characteristic resource database construction. [Results/Conclusion] Currently, university libraries in domestic ethnic minority areas place special emphasis on the preservation and protection of characteristic resources and have undertaken varying degrees of digitization of their collections, but their usability and user-friendliness are uneven; the database level is relatively low, with the vast majority of work remaining only at the digitization stage, and they are still unable to provide precise knowledge services; the construction of characteristic resource databases remains fragmented, with insufficient resource integration and sharing, and the databases lack comprehensiveness. Based on this, countermeasures and recommendations are proposed.

Full Text

Preamble

Current Status, Problems, and Countermeasures of Special Resource Database Construction in University Libraries of Minority Regions

in China

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Abstract

[Purpose/Significance] This study examines the construction of special resource databases in university libraries of China's minority regions, objectively presenting the achievements, characteristics, and shortcomings since the "Tenth Five-Year Plan" period. It provides a research foundation and feasible pathways for further investigating regional coordinated development of special resources and service to national strategies in these libraries.

[Method/Process] Through literature review and web-based surveys, this study investigates and analyzes the special resource database construction of 47 university libraries in domestic minority regions.

[Result/Conclusion] Currently, university libraries in China's minority regions place strong emphasis on preserving and protecting special resources and have carried out varying degrees of digitization based on their collections. However, usability and accessibility remain uneven. Database quality is generally low, with most work remaining at the digitization stage and unable to provide precise knowledge services. Construction standards are inconsistent, development remains fragmented, resource integration and sharing are inadequate, and databases lack completeness. Based on these findings, this paper proposes countermeasures and recommendations.

Keywords: minority region; university library; special collection; special resource database; resource sharing; knowledge service

Special resources are collections with regional, cultural, or disciplinary characteristics formed by libraries during their development. These collections are distinctly different from others in content and form, possessing uniqueness and scarcity that reflect the core value of library holdings and have received widespread attention and proper preservation. Modern media technologies in the network environment have created opportunities for their protection, inheritance, development, and utilization. Since the 1990s, China's three major library systems—public, university, and academy—have invested substantial human and financial resources in special resource database construction. In 2005, Huang Xiaobin and Pu Xiaoge [1] surveyed special resource database construction in Chinese libraries, summarizing characteristics across the three systems: (1) Public libraries' databases generally reflected local characteristics but lacked disciplinary features, with regional disparities between eastern and western China in terms of enthusiasm, quantity, and quality. (2) Academy libraries' databases were over 84% subject-specific for scientific research, with small scale and low sharing. (3) University libraries' databases generally reflected disciplinary characteristics, concentrated in "Project 211" libraries, with nearly 40% being CALIS project results following CALIS principles. In 2006, Deng Rong,

Xiang Jing, and Chen Yu [2] introduced Hubei university libraries' participation in CALIS's "Tenth Five-Year" special database construction, revealing issues such as insufficient regional distinctiveness, inconsistent standards, and lack of deep data mining. In 2008, Liu Ying [3] reviewed achievements and problems in Chinese university library special database construction, proposing development strategies in three areas: database quality control, deep data mining, and improved multi-functional retrieval.

For years since, domestic discussions on special resource database construction have focused primarily on university libraries. Researchers from Sichuan, Jiangsu, Heilongjiang, Guangdong, Jiangxi, Shaanxi, Hainan, Liaoning, and other provinces reported and analyzed their regional university libraries' construction, reaching consistent conclusions about inconsistent platforms, uneven data quality, redundant construction of same-topic databases within regions, inadequate maintenance, and low utilization [4-11].

More recently, some researchers have expanded their scope to minority regions. Yin Lan [12] examined 12 ethnic university libraries' self-built databases, highlighting their ethnic and regional distinctiveness, discipline-based planning, continuous refinement, and increasing diversity. Yuan Linrong [13] studied six university libraries directly under the State Ethnic Affairs Commission, analyzing low utilization, lagging maintenance, and lack of cooperation. Yang Lin [14] analyzed 15 ethnic university libraries based on "specialization, precision, and comprehensiveness." These three studies focused mainly on centrally-administered ethnic universities, with less attention to local ethnic universities and none covering libraries in China's five minority autonomous regions. Moreover, they lacked comprehensive investigation and sufficient indexing value, failing to fully reflect the overall picture.

These studies reveal the basic situation, distribution characteristics, and common problems in Chinese university library special resource database construction, yet several research gaps remain: (1) Limited scope, with insufficient attention to the broader minority regions where special collections are concentrated, failing to comprehensively reflect the overall situation; (2) No revelation of specific characteristics of minority region university libraries compared to other regions; (3) Lack of in-depth problem analysis and effective solutions. Based on this analysis and overall understanding of minority region university libraries [15], this study focuses on analyzing the current status of special resource database construction, revealing achievements and shortcomings in preserving, promoting, and serving special collections. It provides reference cases for libraries yet to undertake such work and offers research foundations and feasible pathways for regional coordinated development and national strategy service.

2. Research Scope and Methods

Currently, academia lacks a precise definition of "minority regions." This study defines the scope using both the concept of "eight minority provinces/regions"

and referencing regulations on National Natural Science Foundation regional scientific fund projects and National Social Science Fund western region projects. The survey covers university libraries in five minority autonomous regions (Xinjiang, Ningxia, Inner Mongolia, Guangxi, and Tibet) and multi-ethnic provinces including Yunnan, Guizhou, Sichuan, Qinghai, Gansu, Liaoning, as well as ethnic autonomous prefectures such as Enshi Tujia and Miao in Hubei, Xiangxi Tujia and Miao in Hunan, and Yanbian Korean in Jilin. Libraries are categorized into three types: autonomous region libraries, multi-ethnic province libraries, and libraries of universities directly under the State Ethnic Affairs Commission. Minority region university libraries are rich in special resources, with most digitization efforts beginning in the early 21st century. The “Tenth Five-Year” period marked the “National University Special Subject Database” as a CALIS sub-project with clear goals and standards, making it the temporal upper limit for this study.

This study employs literature research, web surveys, field investigations, and interviews.

2.1 Literature Research

Literature research focuses on minority region university libraries’ published works about their “own” special resource database construction. In CNKI and CSSCI full-text databases, searches combining “minority region” AND “university library” AND “special database” OR “subject database” OR “self-built database” revealed few studies, likely due to immature publication conditions or unclear intellectual property rights.

2.2 Web Survey

As special resources are core collections prominently featured on library homepages, this study visited each target library’s website to examine special resource or self-built database construction, including resource types, data volume, formats, platforms, and services. The web survey (conducted March-August 2017) found that minority region university library special resources mainly include paper documents, artifacts, audio, video, and images. Self-built databases vary significantly in data volume, format, and platform. Comparative analysis of sample libraries’ databases provides a comprehensive picture of current characteristics and problems.

2.3 Field Investigation and Interviews

The web survey found most self-built databases in minority region university libraries restrict IP access and cannot be accessed via the internet. Field investigations and interviews with project leaders became important supplements.

3. Special Resource Databases in Minority Region University Libraries

3.1 University Libraries in Minority Autonomous Regions

China has five minority autonomous regions: Xinjiang, Ningxia, Inner Mongolia, Guangxi, and Tibet. Their university libraries show planned-economy characteristics in layout, with collections featuring both disciplinary distinctiveness and strong ethnic and regional characteristics. This survey covers 35 university libraries in these five autonomous regions, encompassing all undergraduate institutions.

3.1.1 Xinjiang University Libraries Located in China's northwestern borderland with multi-ethnic populations, Xinjiang's nine university libraries have accumulated different special resources. Since the "Tenth Five-Year" period, they have actively developed special resource databases based on their collections, achieving remarkable results. Most received CALIS Phase III Xinjiang regional special funding, producing large-volume, well-formatted databases with user-friendly platforms and high utilization, effectively preserving and providing access to special resources. Xinjiang University Library has built the most and most mature databases, notably the Xinjiang Local Ancient Books Database—a landmark CALIS Phase III project (No. 4401-XJ-302). Based on digitized Chinese ancient books, it provides deep-level access through catalogs and abstracts with full-text image retrieval. The library also produced a user guide and project leader Zhao Jianfeng [16] promoted the research outcomes, detailing construction conditions, standards, and platform selection, offering practical guidance for other minority region libraries. As a national "Xinjiang Bilingual Education Training Base," Xinjiang Normal University has rich teaching video resources. Through cooperation with relevant departments, the library obtained rights for video harvesting, post-production, and provision, building the "Xinjiang Ethnic Bilingual Education Video Database" [17] following CALIS digital object processing standards and considering future compatibility and sharing. These cases broaden perspectives for libraries in Inner Mongolia, Tibet, and other regions with their own ethnic languages.

3.1.2 Ningxia University Libraries Located in inland northwest China with a single dominant ethnicity and culture, Ningxia's university libraries build databases primarily based on their collections, aligned with institutional positioning and discipline development. Hui studies and Xixia studies are signature disciplines at Ningxia University and North Minzu University, whose libraries focus on Islamic culture, Xixia culture, and Ningxia local documents. Content involves ancient and Republican-era documents in open-access bibliographic databases. Ningxia Normal University, located in Guyuan—the largest Hui settlement area and a cultural intersection with the Central Plains—emphasizes collection of Xihai Gu folk customs and local language folklore, building mainly video-on-demand databases. These three libraries appropriately select topics

matching collection, ethnic, and disciplinary characteristics. Two other libraries have accumulated some special resources but have not yet undertaken database construction. Funding and technology remain primary constraints.

3.1.3 Inner Mongolia University Libraries As the Mongolian settlement area, Inner Mongolia university libraries hold substantial Mongolian literature collections. Since the “Tenth Five-Year” period, all 13 undergraduate university libraries have undertaken digitization based on their collections. Inner Mongolia University Library’s China Mongolian Studies Information Network and Mongolian Periodicals Full-text Database are relatively mature, with large information volume, multiple retrieval paths, and high sharing. Other libraries’ self-built databases mostly center on Mongolian literature with distinct disciplinary characteristics, such as Mongolian medicine databases, Mongol-Yuan economic literature databases, and rare earth subject databases. Eastern Inner Mongolia libraries also focus on Oroqen, Evenki, and Daur “three minorities” culture, Horqin culture, and Hongshan culture; central-western libraries emphasize Chahar, Hetao, and Ordos regional cultures. These efforts broaden perspectives for ethnic regions with their own languages.

3.1.4 Guangxi University Libraries Bordering ASEAN by land and sea, Guangxi’s unique geographical location and numerous cross-border ethnic groups have yielded rich southern minority literature and non-universal foreign language materials. All five undergraduate university libraries feature Guangxi minority literature, local documents, and non-universal foreign language materials, with substantial ancient thread-bound and Republican-era collections. Since the “Tenth Five-Year” period, Guangxi Minzu University Library has built full-text databases of ASEAN literature, Zhuang-Dong language family literature, Zhuang studies literature, and Asian-African language literature. Guangxi Normal University Library has built databases of Republican-era Guangxi books, old Guangxi local gazetteers, rare ancient books, Guangxi language materials, and Guangxi ethnic folk customs. While three other libraries have rich special resources, no database construction has been reported.

3.1.5 Tibet University Libraries Tibet has only three undergraduate universities. All libraries feature ethnic studies, Tibetan studies, and Tibetan medical literature as special resources and have undertaken collection-based digitization. Tibet University Library’s China Tibetan Literature Resources Network and Tibetan Literature Resource Center have substantial information. Tibet Minzu University Library has built the most and best-quality databases, including Tibetan multimedia and Tibetan literature databases funded by CALIS Phase III Tibet regional special funds. Tibet University of Tibetan Medicine’s ancient books database remains at the catalog stage, leaving considerable room for development.

In summary, autonomous region university libraries are the main force in minority region special resource database construction, representing the highest

development level.

3.2 Ethnic University Libraries in Multi-Ethnic Provinces

China is a multi-ethnic nation with 56 ethnic groups distributed in small concentrations and large mixed residence across 64% of national territory. Beyond the five autonomous regions, multi-ethnic provinces and numerous autonomous prefectures host ethnic universities for talent cultivation. This study examines seven libraries: Yunnan Minzu University, Guizhou Minzu University, Sichuan Minzu College, Qinghai Minzu University, Hubei Minzu University, Jishou University, and Yanbian University.

3.2.1 Yunnan Minzu University Library Located in Kunming, this library serves as the Southwest China Sample Center for the Ministry of Education and the American Asian Foundation Book Resource Development Center. Its Southwest China Ethnic Characteristic Literature Research Center collects, organizes, restores, translates, publishes, and digitizes resources from across Southwest China, focusing on Naxi Dongba culture, Dai Buddhist culture, Hani terraced field culture, Bai Benzhu culture, Tibetan Kangba culture, ancient Dian bronze culture, Nanzhao-Dali culture, Yi lunar calendar culture, and border regional cultures. The library has long emphasized organizing and revealing special collections, publishing catalogs in the late 20th century. Its self-built Southwest Minority Characteristic Literature Database features diverse document types with distinctiveness, authority, and practicality, enabling resource integration and dynamic source analysis. Construction received CALIS Phase III and Yunnan university digital library platform funding.

3.2.2 Guizhou Minzu University Library Located in Guiyang, this library collects over 50,000 volumes on Guizhou's 18 indigenous ethnic groups, plus Chinese ancient books, Guizhou local documents, Nuo culture materials, and ethnic cultural artifacts. Its Shui script, Yi ancient documents, and Buyi ancient texts are extremely precious. With 13 self-built databases, it achieves the highest construction level among multi-ethnic province ethnic university libraries. The Guizhou Indigenous Ethnic Literature Digital Library displays ethnic cultural artifacts, local documents, ancient books, Nuo culture materials, and other regionally distinctive resources. Though currently small in data volume, it offers good openness and convenient internet access. Its ethnic culture exhibition hall combines physical displays with 3D technology, offering fresh perspectives worthy of emulation.

3.2.3 Sichuan Minzu College Library Located in Kangding, Sichuan—the only ethnic university in the Kham Tibetan region—this library is the literature information center for the Ganzi Tibetan area. Its Kangba literature and local documents (12,861 volumes) are core collections. In May 2006, the Kangba Literature Hall opened, providing dedicated services for Kangba culture research [18]. In 2013, “Kangba Culture Resources Digital Construction

Research” (No. 13SA0122) received key funding from the Sichuan Provincial Department of Education, ensuring sustainability. The database includes text and web documents, classified according to Chinese Library Classification, serving as both guide and retrieval tool [19].

3.2.4 Qinghai Minzu University Library Located in Xining, this library’s special collections focus on minority language literature and Chinese ancient books, including over 90,000 minority language books and 1,667 Tibetan Buddhist scripture volumes. Its 31,660 Chinese ancient books (78,750 volumes) include many rare editions, with 23 titles selected for the National List of Precious Ancient Books.

3.2.5 Hubei Minzu University Library Located in Enshi, Hubei Province’s Tujia and Miao Autonomous Prefecture, this library’s Ethnic Literature Department focuses on collecting, managing, and serving Tujia and Miao literature and local documents. The university-level Tujia Studies Literature Center is affiliated here. Its self-built Tujia Studies Network, Wuling Region Ethnic Literature Research Database, and Intangible Cultural Heritage Artifacts and Folk Customs Multimedia Database are mature and accessible to internet users. The Tujia Studies Network is funded by the Hubei Provincial Ethnic and Religious Affairs Commission, while the Wuling database is a CALIS general project.

3.2.6 Jishou University Library As the largest library in the Wuling Mountain area, this library serves as a committee member of the Chinese Library Society’s Minority Special Committee and deputy secretary-general of the National Ethnic University Library Committee. Located at the intersection of Hunan, Hubei, Chongqing, and Guizhou, its special collections focus on border regional and ethnic literature. It also holds rich collections of literary master Shen Congwen’s manuscripts, letters, editions, personal books, and belongings. Recent efforts emphasize oral history collection, building Tujia Oral History and Wuling Mountain Region Local Literature databases.

3.2.7 Yanbian University Library Located in Yanji, Jilin Province’s Yanbian Korean Autonomous Prefecture, this library’s Special Collection Department holds Chinese, Korean, and Korean-language ancient books. It provides access to Korean academic databases KISS, KRP, and DBPIA.

Beyond these ethnic university libraries, other multi-ethnic province libraries show notable achievements: Kaili University Library’s Miao-Dong culture database, Guizhou Normal University’s Guizhou local literature full-text database and ethnic folk art video library, Dali University’s Nanzhao-Dali literature database, Chuxiong Normal University’s Yi culture excellent works database, and Tonghua Normal University’s Changbai Mountain plant resources database, Manchu folk art literature database, and Goguryeo literature database.

3.3 Libraries of Universities Directly Under the State Ethnic Affairs Commission

China has six universities directly under the State Ethnic Affairs Commission: Minzu University of China, South-Central Minzu University, Southwest Minzu University, Northwest Minzu University, Dalian Minzu University, and North Minzu University (the latter already covered in 3.1.2). These institutions represent national-level ethnic higher education.

3.3.1 Minzu University of China Library As China's richest university library for ethnology and minority language literature, it houses the National Ethnic Literature Information Center with 220,000 thread-bound ancient books and 180,000 minority language documents in over 20 scripts. Its local gazetteers (3,000+ types, one-third of national total) cover politics, history, geography, folklore, meteorology, water conservancy, and products. Since the "Tenth Five-Year" period, it has built multiple ethnic literature databases from public publications and web resources in PDF format, accessible online without IP restrictions.

3.3.2 South-Central Minzu University Library Located in Wuhan, Hubei, this library is currently the largest ethnic literature center in central-south China, with nearly 100,000 minority documents including 30,000 ancient books reflecting southern minority history and culture. It has built a full-text ancient books database and, leveraging institutional strengths in women's script and Tujia studies, constructed specialized databases for these areas. It also collects works, letters, manuscripts, and audio-visual materials of notable alumni.

3.3.3 Southwest Minzu University Library Located in Chengdu, this library features ethnic literature collections exceeding 300,000 volumes, notably various editions of the Tripitaka and Quran and Dunhuang documents. Its Tibetan and Yi literature centers hold 25,000 classic volumes. Since the "Tenth Five-Year" period, it has built 13 databases including Tibetan Plateau studies, Kangba Tibetan studies, and Qiang, Yi, and Mosuo literature, cooperating with Chengdu Liantu Technology. The Qiang literature database, a CALIS project, offers friendly interfaces without IP restrictions.

3.3.4 Northwest Minzu University Library Located in Lanzhou, this library's collections feature distinct ethnic, religious, and northwest regional characteristics. It systematically holds literature on Gansu's unique "three minorities" (Yugur, Dongxiang, and Bonan) and valuable pre-Qing Tibetan ancient books, including complete works of Tsongkhapa and the 5th Dalai Lama, and a 105-volume Tibetan handwritten Tripitaka (Kangyur) copied over 200 years. Since the "Tenth Five-Year" period, it has built databases for Gansu's unique ethnic groups, ethnic literature bibliographies, and Tibetan ancient books. The

Gansu Unique Ethnic Groups Research Database covers folklore, education, clothing, festivals, songs, dances, history, geography, and religion, providing retrieval and download services. The Tibetan ancient books database is a bibliographic database with over 10,000 entries in Word format with Tibetan-Chinese bilingual titles. Compared with its rich collections, self-built databases are relatively few, leaving many precious ancient documents underutilized.

3.3.5 Dalian Minzu University Library Established later than other ethnic universities, this library has built numerous databases with distinctive northeast minority characteristics despite less abundant collections. Most are open-access bibliographic databases built on CNKI platforms, accessible via website portals. The Northeast Minority Research Multimedia Database includes 11 ethnic groups' origins, demographics, distribution, language, culture, religion, diet, clothing, festivals, climate, geography, and notable figures. These secondary literature databases provide abstracts, literature access links, and convenient retrieval for CNKI and Duxiu users.

In summary, libraries of universities directly under the State Ethnic Affairs Commission reflect ethnic and disciplinary characteristics, representing the highest level of special resource database construction in China's minority regions.

4. Research Conclusions

Compared with other regions, minority region university libraries exhibit both common and unique problems in special resource database construction. Common issues include inconsistent data standards, irregular indexing, poor accessibility, low utilization and sharing, and inadequate maintenance. Unique problems involve ethnic language literature and border minority local document integration.

4.1 Main Achievements and Characteristics

- (1) **Emphasis on collection and preservation:** Libraries universally prioritize special resources as core collections, investing substantial human resources in organization, restoration, and database construction. Resource carriers have diversified beyond traditional paper to include artifacts, images, audio, video, and oral documents. Some libraries have built museums showcasing ethnic customs, protecting ethnic language literature and cultural heritage while reflecting disciplinary, ethnic, and regional characteristics, thus enriching Chinese culture.
- (2) **Collection-based digitization:** Most digitization focuses on ethnic, folk, gazetteer, ancient, and Republican-era documents. Self-built databases are primarily bibliographic and abstract databases, with fewer full-text databases. Databases vary significantly in data volume, format, platform, and usability. Comparatively, CALIS special resource

databases, CADAL project databases, and databases built by major commercial vendors demonstrate higher quality and sharing.

4.2 Main Problems

- (1) **Numerous but small-scale databases with uneven quality:** Most are bibliographic/abstract databases; full-text databases are rare, and those built as websites or institutional repositories are even rarer. Some “databases” are merely scanned images or Excel spreadsheets of bibliographic features without indexing or knowledge organization, remaining at the document-to-document level with small data volumes and simple descriptions.
- (2) **Fragmented construction and low sharing:** Only a few libraries received CALIS or CADAL funding or technical support, achieving good quality and resource sharing. Most work in isolation with restricted access due to unresolved copyright issues, resulting in low sharing. No large-scale, relatively complete, highly shared and utilized, regionally distinctive databases exist across minority regions.
- (3) **Backward technology and resource damage:** Some spontaneous construction lacks funding and technical guidance, rendering some databases unusable. Problems include: (a) No pre-construction thematic classification, resulting in databases lacking disciplinary or local characteristics; (b) Inconsistent standards in metadata indexing and formatting, preventing unified metadata retrieval and distributed full-text services and integration with CALIS; (c) Most construction is periodic or 突击式 (campaign-style) with inadequate maintenance and sustainability; (d) Some work remains outside national education authorities’ knowledge systems, wasting resources; (e) Some digitization damages original documents by disassembly.
- (4) **Emphasis on digitization over datafication, construction over service:** Libraries generally prioritize digitization over datafication. Few subject-specific databases exist with 粗放式 (extensive) data mining and indexing, lacking necessary knowledge associations and resulting in low usability. Retrieval paths are limited without advanced combined search, yielding low precision. Construction remains at the 初级阶段 (primary stage) of document-to-document conversion without deep literature revelation, evaluation, or knowledge services based on user needs. Some libraries face the awkward situation of providing neither special collection access nor database permissions.

5. Countermeasures and Recommendations

Database type and standards determine quality and are prerequisites for future resource sharing and cross-database retrieval. Based on understanding high-quality standards and addressing identified problems, this paper proposes:

5.1 Emphasize Thematic Refinement and Knowledge System Construction

Database quantity doesn't accurately reflect quality or development level but indicates scale and effort. To address numerous, small-scale, uneven-quality, and fragmented databases, libraries should: First, build local platforms to display self-built databases and achieve regional sharing. Yunnan's approach—integrating 20 sub-projects from different libraries into the Yunnan University Digital Library platform without resource barriers, accessible via homepage links—is replicable. Second, refine database themes and build regional knowledge systems. For example, Inner Mongolia libraries should classify Mongolian literature by theme into sub-databases, then integrate them via a shared platform into a complete, thematic, regionally distinctive database cluster. Similar integration is recommended for Tibetan literature databases in Tibet, Qinghai, Sichuan, and Yunnan, and for Tujia primary resources at Hubei Minzu University, Jishou University, and South-Central Minzu University.

5.2 Standardize Data Entry to Improve Database Quality

To address backward technology, inconsistent standards, and resource damage: First, follow CALIS Phase III standards for paper collection digitization and standardize bibliographic records. Second, add 856 fields to MARC data for URL links, integrating digital collections into library OPAC systems for unified retrieval and improved utilization. The 856 field can establish Z39.50 protocol-based links between network databases and library systems, with access restrictions resolved through user authentication [23]. Finally, improve quality by mining knowledge content and relationships within literature to build hierarchical, knowledge-content systems [24], moving beyond surface descriptions.

5.3 Conduct Standardized Construction Through Projects, Eliminating Non-Standard Practices

To address digitization-over-datafication and construction-over-service issues: CALIS should organize experts to provide post-construction funding and key support for well-founded or substandard projects, guiding data conversion of non-CALIS-standard databases into the CALIS service system. During datafication, introduce linked data technology for thematic aggregation [25]. Funding should be sought through provincial ethnic affairs commissions or education departments, with university matching support. The Ministry of Education should expand aid beyond Tibet and Xinjiang to provide continuous policy and technical assistance. Qualified libraries may participate in CASHL's "Special Collections +" or CADAL new projects. Adopt crowdsourcing models [26] for user participation in database construction. Eliminate all non-standard database construction.

5.4 Build a National-Level Minority Region Special Resource Knowledge Repository

Libraries in the same region share both homogeneity and complementarity in special resource collection. Construction requires overall planning and division of labor toward a national-level knowledge repository [27]. Though administratively separate, minority regions have integrated cultures without clear boundaries. Resource construction should break regional barriers through cross-regional collaborative innovation centers based on ethnic cultural inheritance. Currently, libraries should focus on collecting and organizing ethnic language literature and integrating existing databases. In resource selection, prioritize comprehensiveness and incorporate existing resources from provincial academy libraries, public libraries, archives, and intangible cultural heritage centers.

5.5 Emphasize Promotion to Realize Database Value

As carriers of ethnic culture, special resource databases deserve attention and full utilization. First, promote databases to enable more users to understand and use them, serving teaching and research. Second, align construction with national strategies such as the Ministry of Culture's "Belt and Road" Cultural Development Action Plan (2016-2020) and "13th Five-Year" Cultural Industry Development Plan, serving social and national strategic needs. As frontier regions for the "Belt and Road" strategy, minority areas need university libraries to strengthen international cooperation with cross-border ethnic cultural departments, enriching cultural diplomacy and contributing to humanity's common cultural heritage. Libraries should also support regional cultural industry development, industrial park construction, and talent cultivation through literature support and think tank functions [28], addressing imbalanced and insufficient cultural development.

References

- [1] Huang Xiaobin, Pu Xiaoge. Current status, problems and countermeasures of special database construction in Chinese libraries[J]. Information Science, 2007, 25(5): 784-789.
- [2] Deng Rong, Xiang Jing, Chen Yu. Investigation and analysis of special databases in Hubei university libraries[J]. New Century Library, 2006(5): 46-50.
- [3] Liu Ying. Research on current status and development strategies of special database construction in Chinese university libraries[J]. Library Science Research, 2008(7): 36-38.
- [4] Ran Xiaobo. Investigation and analysis of self-built special databases in Sichuan university libraries[J]. Library Science Research, 2009(10): 40-44.
- [5] Zhou Wei, Wang Yu. Analysis of research orientation on special database construction in university libraries—Empirical study based on Jiangsu province[J].

Library, 2010(2): 70-72.

[6] Ju Lanping. Research on current status and countermeasures of special database construction in Heilongjiang university libraries[J]. Modern Intelligence, 2010, 30(1): 59-62.

[7] Liao Bingbing. Analysis of special databases in Guangdong undergraduate university libraries[J]. Library Science Research, 2011(8): 16-20.

[8] Chen Jinglian, Luo Hong. Current status and development direction of special databases in Jiangxi university libraries[J]. Library Science Research, 2012(8): 42-46, 50.

[9] Wei Qingshan, Zhang Ruijuan, Liu Huiting, et al. Investigation and analysis of special databases in Shaanxi university libraries[J]. Library Tribune, 2012, 32(2): 88-90, 112.

[10] Zhang Guohui, Su Jie, Long Jinglin. Current status and development countermeasures of special databases in Hainan university libraries[J]. Library, 2012(2): 126-128.

[11] Liu Jigang. Investigation and analysis of self-built special databases in Liaoning university libraries[J]. Library Science Journal, 2014(6): 24-27, 31.

[12] Yin Lan. Analysis of special databases in 12 ethnic university libraries in China[J]. Library Science Research, 2014, 26(10): 135-137.

[13] Yuan Linrong. Main problems in follow-up construction of special databases in ethnic university libraries[J]. Journal of Southwest Minzu University (Humanities and Social Sciences), 2014(7): 232-236.

[14] Yang Lin. Current status and development countermeasures of self-built databases in ethnic university libraries[J]. Library and Information Service, 2016, 60(10): 17-23, 75.

[15] Qi Xinglan. Current status and development strategies of university libraries in minority autonomous regions[J]. Library and Information Service, 2018, 62(16): 111-119.

[16] Zhao Jianfeng. Construction and practice of special collection databases in minority regions—Case study of Xinjiang University Library's "Xinjiang Local Ancient Books Database"[J]. Library World, 2012(2): 20-23, 33.

[17] Bao Rui. Research on construction of Xinjiang ethnic bilingual education video database[J]. Agricultural Library and Information Science Journal, 2015(7): 100-102.

[18] "Kangba Culture Resources Digital Construction Research" project launch at Sichuan Minzu College Library[EB/OL]. [2017-05-16]. <http://tsg.scun.edu.cn/tongzhi26.html>.

[19] Ling Li, Zeng Yi. On Kangba culture resources and collection digitization construction[J]. Journal of Sichuan Minzu College, 2013, 22(2): 100-104.

- # Current Status, Problems, and Countermeasures of Special Resource Database Construction in University Libraries of Minority Regions in China

Inner Mongolia University Library, Hohhot 010021

chinarxiv.org/items/chinaxiv-202308.00589

Machine Translation

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

Source: ChinaXiv — Machine translation. Verify with original.