Primary Digital Resource Characteristic Database Construction of Local Literature

A case study of Manchu's folk art

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Abstract—Tonghua Baishan area formed a large number of precious characteristic literature because of its special geographical position and historical reasons, long-term accumulation, such as Gao Gouli characteristic literature, Manchu Shaman characteristic literature etc. According to the features of native form and content for primary digital resource in local literature, using social development strengths perspective, taking Tonghua Baishan area as an example, the article proposes the significance, measures and methods of constructing Tonghua Baishan area primary digital resource protection platform, puts forward new views on the construction to realize the true meaning of the local literature resource protection platform. The contents including the realistic significance for constructing Tonghua Baishan area primary digital resource protection platform; the advantage for constructing Tonghua Baishan area primary digital resource protection platform; the construction of Tonghua Baishan area primary digital resource protection platform. The existence form, collection, classification, catalogue, design and implementation, management and maintenance are discussed.

Keywords—local literature; Tonghua Baishan area; primary digital resource; Manchu’s folk art; construction

I. INTRODUCTION

Local literature is a comprehensive reflection of regional politics, economy, culture, technological and social development, customs, natural resource etc. Tonghua Baishan area formed a large number of precious characteristic literature because of its special geographical position and historical reasons, long-term accumulation, such as Gao Gouli characteristic literature, Manchu Shaman characteristic literature. But unfortunately, through an online survey, there have no formation of series, systematic research on the local characteristic literature at present[1-8]. Therefore, with the perspective of social development in a timely and effective manner will have important economic significance, historical significance and cultural significance to form Tonghua Baishan area local characteristic literature collation and digital protection.

II. THE REALISTIC SIGNIFICANCE FOR CONSTRUCTING TONGHUA BAISHAN AREA PRIMARY DIGITAL RESOURCE PROTECTION PLATFORM

A. to Provide Efficient Literature Historical Reference and Decision-making Basis for the Development of Economic Construction in Tonghua Baishan Area

Local governments at all levels and relevant departments in the economic decision-making process of economic development planning, needs to grasp the historical data of economy, science and technology, culture, natural conditions and other aspects, to grasp the disciplinarian of development and changes, so as to make a reasonable analysis and interpretation of the reality, seeks truth from facts to make a forecast and plans for the development of local economy. In the local characteristic literature, for throughout the population, products, minerals, water conservancy, natural disasters, cultural life and customs and so on, there are detailed records. Building a platform of local characteristic literature digitization has very important significance for realizing the leaping development of Tonghua Baishan area.

B. Can Great Extent Reduce the Phenomenon of Damaging and Lossing Precious Local Literature

There are many high value data in local characteristic literature which many users often access and use. It extremely easy to cause the literature wear and incomplete, or even lost, the loss is often difficult to make up, but it not means to put it away unheeded, hidden and not. While the digital information is conducive to the storage, transmission, retrieval and reproduction, it is a good solution to the contradiction. On the one hand can make the precious original be preserved; on the other hand, the digital information can also be more than repeated use and realize the preservation and utilization of local literature.

C. Serving for Scientific Research, Education and Advocacy

The local characteristic literature of Tonghua Baishan area contains abundant information resource, has high practical value and application prospect, which provides an indispensable reference for experts and scholars to research compiling history and annals. In
addition, the digitization of local characteristic literature can provide abundant materials for the development of local resource, to provide reference data for all the traditional education. At the same time, local characteristic literature digitization is conducive to expanding on the region's propaganda, to improve the regional well-known and carry forward local culture[9].

D. Serving for the Development of Library Cause

The library has plans to make many kinds of literature digitization that related to key disciplines, includings the unique value of the library or related printing document, it is the important measure to take the characteristics of diversified development road, open up an innovation. Researching on digital resource preservation, primary consolidation and management mode in the library survival and development has great significance.

III. THE ADVANTAGE FOR CONSTRUCTING TONGHUA BAISHAN AREA PRIMARY DIGITAL RESOURCE PROTECTION PLATFORM

A. Geography Advantage

Tonghua Baishan area in Jilin province is located in the south-east, includes 5 counties and 6 cities (Tonghua City, Meihekou City, J’san City, Baishan City, Linjiang City, Tonghua County, Liuhe County, Huinan County, Fusong County, Jingyu County, Changbai County), ethnic Han, Manchu, Korean based on. Here is not only different from other ethnic minority areas of the natural ecology, history and culture, economy and social life, national problems and educational characteristics, but also accumulates valuable rare of local literature. So Tonghua Normal University library can associate with Baishan City library, Tonghua County library, Huinan County library, to develop this project. The close geographical position facilitates the investigation of researchers and first hand data collection, acquisition and consolidation, provides the most convenient conditions for the protection of original digital resource.

B. Literature Information Resource Advantage

The type of the literature is various, such as professional books, journals and informal publications, each type of literature is the essential resource security in the construction of digital protection. In the acquisition of literature information resource must pay attention to various types of literature information resource collection and not missing. Therefore, the investigation and the number of directly of resource affect the quality of digital protection. Area library alliances is an important guarantee for the digital protection. Especially Tonghua Normal University is the only high school in Tonghua Baishan area, it is an important research institutions of Tonghua Baishan area culture and Manchu Shaman culture, sets up Koguryo Research Institute, Changbai Mountain Institute of culture, Koguryeo Research Institute is the key research institutions in Jilin province. Research in Tonghua Normal University leads the nation covering Tonghua Baishan area history, Changbai Mountain Manchu folk art, Changbai Mountain plant.

C. Technology Advantage

With the development of library automatic technology, electronic and digital library research deeply, the library as active members in the construction of network, have rich software technology development experience in the information retrieval system, the man-machine interface design, protection and management, natural language processing, expert system and so on. As an important center of information resource, the library often can introduce all kinds of advanced technology and equipment, so the library as a whole have a considerable advantage of the hardware resource.

D. Talent Advantage

Reasonable personnel structure is the key to the success of the construction protection. The group with a reasonable, appropriate and moderate structure in the aspects of knowledge structure, age structure and professional structure. In the work of the layout structure of wide coverage, Tonghua City library, Huinan County library, Baishan City library involved. There are specialized to study Tonghua Baishan area proficient in computer technology elite, they are good at information gathering and processing, undergraduate, master's degree of coverage[10].

IV. THE CONSTRUCTION OF TONGHUA BAISHAN AREA PRIMARY DIGITAL RESOURCE PROTECTION PLATFORM

A. Existence Form of Primary Digital Resource

At present, the domestic digital resource of library collection is mainly for the purchase or leasing, library can’t have the resource itself, moreover, the homogeneity phenomenon of different library collection resource is very serious, therefore, the library should break through the traditional mode of resource construction, put the construction of primary resource into library collection digital resource construction, seek survival and development.

Tonghua Baishan area primary digital resource can be divided into two categories, one category is the primary information resource, another kind is the regeneration information resource, through access to information after digital processing entity resource, not only have been published but also unpublished primary resource, therefore the Tonghua Baishan area primary digital resource has original, random, research, authoritative features. The feature not only determines the diversity, but also determines its contents and wide range. The main primary resource literature types in Tonghua Baishan area are local history, genealogy, archives, essays, notes, diaries, local collection, local Yearbook, epitaph, catalogue, local newspapers, local bibliographic references, audio-visual data etc. Therefore, the primary carrier types of digital resource in Tonghua Baishan area are diversity, variety, scattered distribution, not easy to collect, manage and use etc.

B. Collection of Primary Digital Resource

At present, the Tonghua Baishan area primary digital resource acquisition mainly has the following several
ways: one is CNKI and Wanfang database; the second is about the Tonghua Baishan area published works; the third is about Tonghua Baishan area of teaching materials, teaching plan and teaching courseware, academic report; the last is from the relevant literature information investigation concluded.

C. Classification of Primary Digital Resource

According to the dynamic distribution of Tonghua Baishan area literature knowledge, making the protection of the literature information always has practicality, authenticity, novelty, continuity and integrity, can effectively serve the vast number of users. More importance is the protection will be established with open, well structured, easy to use, protection of information dissemination, modify, extend and transfer, and can provide distance information service.

Based on this situation, we should not only give full consideration to the protection of information organization, knowledge navigation, knowledge identification and knowledge retrieval and so on, but also to take into account the data filling, backup and recovery, and achieve high efficiency operation of protection. Based on the collection and analysis of Tonghua Baishan area primary digital resource, we divide them into eight topics:Tonghua Baishan area local history topics; Tonghua Baishan area local special thematic series; Tonghua Baishan area archives; Tonghua Baishan area local literature bibliography topics; Tonghua Baishan area cultural relics distribution special topics; Tonghua Baishan area audio-visual data special; Tonghua Baishan area epitaph essays, notes, diary special topics; Tonghua Baishan area local genealogy special topics.

D. Catalogue of Primary Digital Resource

Under the modern network environment, any library may not rely on the library's information resource to meet all the user's information need, needs some form cooperation between libraries. Resource sharing has become the inevitable trend of Library development. Based on this consideration, we attaches great importance to the problem of standardization in the protection process of constructing primary digital resource. At the beginning, a survey of the characteristic resource database was conducted in order to understand the use of standard and specification[11]. In the construction process, in strict accordance with the "UNI-MARC format and manual", "International Standard Bibliographic Description", "Chinese machine readable format specification" and other international and domestic related literature database for the standards and requirements of protection. Professional database selection of Tsinghua Tongfang production management system (TPI) as the application platform, the platform can be compatible with the widespread use of various university libraries of CNMARC standard and Dublin Core standard, supports Z39. 50 protocol standard and XML file format. The field type description of project options are title, keyword, abstract, author, ISBN/ISSN, language, store location and exact formats, etc. ( TABLE 1 )

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E. Design and Implementation of Primary Digital Resource Protection Platform

Tonghua Baishan area primary digital resource protection platform is divided into management subsystem and application subsystem, using ASP combined with SQL Server and B/S framework, carried out the model of the website database platform with dynamic management.

Among them, the management subsystem includes the following modules:

- Authentication: user authentication.
- Document management: add, modify and delete documents.
- Column management: column and sub item management: add, modify and delete.
- User management: manage the user, the illegal users can lock or delete.
- Administrator management: manage permissions set. The different administrators of different levels on database platform management operation.

Application subsystem includes the following modules:

- Category navigation browsing: in accordance with section browsing data.
- Retrieval according to the conditions: set the retrieves items such as the title, keywords, source, author into arbitrary conditions.
- See general information: show the title, author, source, the brief information.
- Download the original: save the various types of data in the platform to the local.

In addition, the system platform also contains the following modules:

- Registered user name: the registered users own user name, firstly detects whether there will be other information, then user's password, password protection, includes questions and answers, gender, email, QQ number of registered added in the database.
- Login: user using the correct username, password login system platform. The system will prompt "illegal operation" while three times in a row can not correctly input the user name, password.
- Retrieve the password: when users forget passwords, according to question answer correctly to reset the code.
The relationship of main functions module shown in Fig. 1:

![Diagram](image)

F. Management and Maintenance of Primary Digital Resource Protection

Tonghua Baishan area primary resource protection platform is a dynamic, developing, constantly enrich the content. A hand to ensure data organization in a certain way together, in order to realize the normal operation of the entire project; on the other hand to ensure the continuity and integrity of data. At the same time to ensure the content and function in future reproduction, therefore, the effective management of the platform has becoming a very important part. Based on this situation[12], we adopt ASP and SQL query language combination in the construction of protection platform, through the preparation of a ASP statement to realize the protection management and maintenance. ASP realizes the connection and access to the protecting by two main objects: Connection and Recordset, provides effective protection for the efficient operation of the entire project implementation.

we design a flexible and friendly network retrieval interface when the protection platform construction, the implementation of unified supervision and management, and have laid the solid foundation for Jilin province various universities and scientific research institutions in the next step of sharing resource.

V. CONCLUSIONS

The primary electronic digital resource protection in Tonghua Baishan area is a long accumulation of demonstration and related key disciplines, fully reflects the local characteristics, cultural characteristics, it has the originality and the competitiveness in Tonghua Baishan area. The construction of Tonghua Baishan area primary electronic digital resource protection not only for in-depth study provides the most convenient conditions, but also provides a favorable basis for acoustic digital resource construction of local literature.

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