Research on the Classification Management and Digital Service Model of Textile Intangible Cultural Heritage Document Resources in the Construction of Library Characteristic Collections

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ABSTRACT Textile intangible cultural heritage (textile ICH) shoulders the important task of inheriting excellent traditional Chinese culture and revitalizing traditional crafts. Its document resources cover diverse contents such as skill records, inheritance pedigrees, image archives, material descriptions, and folk custom correlations, possessing high historical, artistic, and academic value. As core institutions for the preservation and service of document resources, libraries incorporating textile ICH documents into characteristic collections is a crucial measure to inherit cultural genes and meet users' personalized information needs. Taking textile ICH document resources as the research object, this paper systematically explores their classification management system and digital service model in library characteristic collections through literature research, field visits, and case analysis. First, it defines the types and characteristics of textile ICH document resources and constructs a three-dimensional classification framework of "carrier attribute-content theme-inheritance value". Second, it analyzes current problems in library classification management, such as inconsistent standards and insufficient integration. Further, it proposes a full-process digital service model covering digital collection, storage, organization, retrieval, and service, with consideration of non-contact digital acquisition, RFID-based resource identification, wireless access, and structured metadata management for cultural heritage resources. Finally, it verifies the practical effectiveness of classification management and digital services combined with empirical data and typical cases. The research aims to provide theoretical references and practical paths for libraries to standardize the construction of textile ICH document collections and improve service quality, while also offering a digital resource management framework relevant to electromagnetic sensing, information identification, and intelligent library service systems.

INDEX TERMS textile intangible cultural heritage, classification management, digital service, rfid identification, electromagnetic sensing

I. INTRODUCTION

A. RESEARCH BACKGROUND

TEXTILE intangible cultural heritage (textile ICH) undertakes the important mission of inheriting excellent traditional Chinese culture and revitalizing traditional crafts [1]. Inheriting and promoting textile ICH can explore the historical and cultural connotation of textile and apparel, enhance the soft power of textile culture, and improve the cultural confidence of China's industry and citizens [2]. Textile ICH requires broader cognition and multi-angle dissemination; in the process, its cultural representation and spiritual core must be inherited, and combined with the basic characteristic of the dynamic variability of ICH, it is required to innovate while inheriting. Its related document resources are important carriers for recording the inheritance context of ICH and continuing the cultural root [3]. With the in-depth advancement of ICH protection work, under the guidance of the policy of "protection first, rescue foremost, rational utilization, inheritance and development" [4], the systematic preservation and efficient utilization of textile ICH document resources have become an urgent task.

Libraries, especially public libraries, shoulder the re-

sponsibility of protecting and inheriting human civilization and are important organizational institutions for inheriting intangible cultural heritage [5, 6]. As an important part of the public cultural service system, it is the bounden duty of public libraries to promote the integration of ICH culture and digital intelligence technology. The construction of characteristic databases can increase the value of information resources owned by libraries and help libraries fulfill their missions of education and cultural dissemination [7]. The characteristic resources of libraries are an important embodiment of regional characteristics and collection strength, and also play an important role in the inheritance of local historical culture and the promotion of local economic and cultural development.

Applying digital technology to intangible cultural heritage, namely the digital protection of intangible cultural heritage, can effectively develop, protect and inherit intangible cultural heritage [8-10]. The top priority of the digital protection of intangible cultural heritage is to establish an intangible cultural heritage database.

Because the database can not only store and manage resources, but also provide readers with convenient information acquisition and access channels, which is an effective means for the digital protection of ICH [11].

Therefore, carrying out research on the classification management and digital service model of textile ICH document resources in the construction of library characteristic collections has important theoretical significance and practical value.

B. RESEARCH STATUS

The participation of public libraries in ICH protection has always been a common research topic for scholars at home and abroad, which is of great significance for the cultural inheritance, education popularization, innovative development of ICH, enriching library resources and services, and revitalizing local cultural industries.

Faced with problems such as limited professionals in public libraries for organizing ICH promotion projects and lack of attractiveness to the public, Severson proposed that public libraries protect and promote ICH projects in the form of crowdsourcing, using the professional knowledge and voluntary labor of social groups to replace part of the library labor force, making the ICH promotion of public libraries more efficient and inclusive [12]. Gorman summarized the role of libraries in the construction and protection of "ICH" resources and advocated that libraries connect "ICH" records with various cultural institutions through alliances to concentrate resources and use their own capabilities and professional knowledge to achieve cultural goals [13]. In terms of analyzing the construction of digital services in public libraries, Peng Siyu et al. used network survey method, interview method and comparative analysis method to investigate and study the usage and development problems of digital service platforms in public libraries [14]; Hu Yong et al. constructed a hierarchical digital construction model for small and medium-sized public libraries from a digital perspective against the background of the construction of new libraries for small and medium-sized public libraries [15];

Yan Beini and other researchers adopted network research methods to conduct a detailed analysis on various aspects of digital services in provincial public libraries in China, such as service beneficiaries, service content provided and service platforms [16].

Regarding the research on the digital construction of "ICH" in libraries, German scholar Preuss, U took the Brandenburg cultural heritage digitalization project as an example, expounded its heritage report, introduced three priorities for solving the digital protection of cultural heritage in the future, and advocated that digital cultural heritage needs interdisciplinary thinking, cooperation initiatives, reliable IT infrastructure and additional funds [17]. Qi Zhongtian explored the effective ways of digital protection of ICH in the context of new media, and the motivation of digital protection of intangible cultural heritage has changed from "salvage" protection to "multi-channel" dissemination [18]. Yang Tao took Tianjin Library as an example to explore the protection method of ICH craftsmanship knowledge in the research of ancient book restoration in public libraries [19]. Xu Junhua investigated 46 public library ICH databases in China and concluded that public libraries have many problems such as insufficient attention to the construction of ICH databases, low degree of digitalization, and lack of professional talents [20]. In terms of theoretical research, Navaneethakrishnan S affirmed the positive role played by libraries and library and information management personnel in the protection of intangible cultural heritage [21]. Leili Seif used the Delphi method to investigate 30 experts and researchers and found that the main tasks of Iranian libraries in ICH protection are the collection of ICH documents and the holding of ICH exhibitions; the research also proposed to use information technology to preserve and disseminate ICH resources [22]. This also affirms the role of libraries in ICH protection. Civallero E emphasized that libraries should provide channels for the dissemination of various cultural heritages, including intangible cultural heritage [23]. Characteristic databases are important platforms for inheriting historical culture and promoting local economic development. Local special collection document resources are conducive to the protection and development of local documents, promote the formation of public library brand culture, and can provide better services for government decision-making and scientific research [24]. Building a characteristic database is the need to promote local economic development and the primary condition for information resource sharing [25]. The characteristic construction of libraries is conducive to further promoting the improvement and development of libraries and meeting readers' information needs [26]. Ding Rui took the "Picture Database of the Capital Library" as an example to discuss the methods of library characteristic

database construction, which should select topics according to actual needs, actively introduce compound talents, and strengthen the protection of physical documents in terms of temperature, humidity, and dust removal [27].

At present, the research on ICH protection is relatively abundant in the academic field. The concept, value research, and protection paths of ICH protection have basically formed a relatively rich theoretical system.

Moreover, domestic and foreign scholars have done a lot of research on the digital protection of ICH in libraries, providing certain methods and approaches for promoting the ICH protection of public libraries.

There are also some deficiencies in the research. Although the research on digital intelligence empowerment started early, and the integration of public libraries and digital intelligence empowerment technology in service activities is relatively rich, there are few theories introducing digital intelligence empowerment for ICH protection into public libraries, which shows that there is a situation where theory lags behind practice in ICH protection innovation. At the same time, there is little research on the classification management of textile ICH document resources in the construction of library characteristic collections. Therefore, it is of great significance to explore the classification management and digital service model of textile ICH document resources in the construction of library characteristic collections.

C. RESEARCH CONTENT AND METHODS

1) Research Content

The research content of this paper mainly includes the following four aspects:

(1) Definition of the types and characteristics of textile ICH document resources;

(2) Construction of the classification management system for textile ICH documents in libraries;

(3) Research on the digital service model of textile ICH documents in libraries;

(4) Empirical analysis and case study.

2) Research Methods

(1) Literature Research Method: A large number of relevant literatures on textile ICH, library characteristic collections, document classification management, digital services, etc. are read to lay a theoretical foundation for the research.

(2) Field Visit Method: Conduct field visits to domestic libraries (including public libraries, university libraries, and professional libraries) that carry out the construction of characteristic collections of textile ICH documents, find out the problems existing in the current practice of ICH protection in libraries, and understand the current situation of their classification management and digital services.

(3) Case Analysis Method: This paper mainly aims at the problems found during the visits, looks for successful practical cases, and summarizes these cases in order to provide reference for Chinese libraries to better protect ICH.

(4) Expert Interview Method: A total of 15 experts were interviewed, including 5 experts in ICH protection (with more than 10 years of practical experience in ICH investigation and protection), 5 library science experts (engaged in document classification and cataloging research for a long time), and 5 textile industry experts (with in-depth research on textile craftsmanship and cultural inheritance). The structured interview outline includes three modules: the rationality of textile ICH document classification standards, the feasibility of digital collection technology, and the optimization direction of digital service models. Each interview lasted 40-60 minutes, and the interview content was transcribed and sorted out to form a standardized expert opinion database.

II. PROBLEMS IN THE CLASSIFICATION MANAGEMENT OF TEXTILE ICH DOCUMENTS IN LIBRARIES

A. INCONSISTENT CLASSIFICATION STANDARDS

At present, libraries lack unified standards and norms for the classification of textile ICH documents. Most libraries adopt the Chinese Library Classification for classification, but this classification method has low pertinence to textile ICH documents; the classification standards formulated by some libraries themselves lack scientificity and systematicness, and the classification logic is chaotic, resulting in low efficiency of document retrieval.

B. INSUFFICIENT INTEGRATION OF DOCUMENT RESOURCES

Textile ICH document resources are scattered in different libraries, ICH protection institutions, and inheritors, and there is a lack of effective integration mechanisms. To solve this problem, this paper proposes to establish a "tripartite linkage" resource integration mechanism involving libraries, ICH protection institutions, and inheritors:

(1) Libraries take the lead in establishing a regional textile ICH document resource alliance to formulate unified resource integration agreements and data exchange standards;

(2) Cooperate with ICH protection institutions to sort out and collect scattered documents through special projects, and provide professional technical support for document sorting;

(3) Establish a friendly cooperative relationship with inheritors, adopt the mode of "donation + entrusted preservation + digital replication" to collect precious documents in their hands, and provide certain incentives and technical guidance for inheritors to participate in resource integration.

C. NON-STANDARD DOCUMENT CATALOGING

Due to the lack of unified cataloging standards, there are many problems in the cataloging of textile ICH documents in libraries:

- Incomplete cataloging items and missing key information (such as inheritor information, document sources, inheritance value, etc.);

- Ununified cataloging formats and chaotic data formats, making it difficult to realize the interconnection and sharing of document resources;
- Insufficient cataloging depth and inadequate description of the content characteristics and cultural connotation of documents, affecting the retrieval and utilization of documents.

D. LACK OF PROFESSIONAL TALENTS

The classification management of textile ICH documents requires professional talents with multidisciplinary knowledge. However, most of the existing staff lack relevant knowledge and skills of textile ICH, and are difficult to be competent for the classification, cataloging, sorting and other work of documents, affecting the quality and efficiency of classification management.

III. CONSTRUCTION OF THE CLASSIFICATION MANAGEMENT SYSTEM FOR TEXTILE ICH DOCUMENTS IN LIBRARIES

A. CONSTRUCTION PRINCIPLES

1) Scientific Principle

It should conform to the inherent laws and characteristics of textile ICH documents, be guided by scientific classification theories, and ensure clear classification logic, distinct levels and unified standards.

2) Practical Principle

It should meet the actual needs of library document management and user retrieval and utilization, and the classification standards should be concise and easy to operate.

3) Systematic Principle

It should cover all types and contents of textile ICH documents and form a complete classification framework.

4) Dynamic Principle

It should have a certain degree of flexibility and expandability, and be able to timely adjust and improve classification standards according to changes in document resources.

5) Inheritance Principle

It should fully consider the inheritance value of textile ICH, highlight the inheritance context and cultural connotation of documents, and facilitate users to understand the inheritance process and development status of textile ICH.

B. CONSTRUCTION OF THE "THREE-DIMENSIONAL INTEGRATED" CLASSIFICATION FRAMEWORK

Combined with the types and characteristics of textile ICH documents, this paper constructs a "three-dimensional integrated" classification framework of "carrier attribute - content theme - inheritance value" (see Figure 1).

The three dimensions are interrelated and complementary, and can comprehensively and accurately reflect the characteristics of textile ICH documents:

- Taking carrier attribute as the first dimension to clarify the physical form of documents;
- Taking content theme as the second dimension to reveal the core content of documents;
- Taking inheritance value as the third dimension to highlight the importance of documents.

C. CLASSIFICATION STANDARDS AND RULES

1) First Dimension: Carrier Attribute Classification

According to the physical form of documents, textile ICH documents are divided into four categories: paper documents, physical documents, audio-visual documents, and electronic documents. The specific classification standards are as follows:

(1) Paper documents (Z1): Documents that record textile ICH-related information with paper as the carrier.

(2) Physical documents (Z2): Documents that reflect textile ICH craftsmanship and cultural connotation with physical objects as the carrier.

(3) Audio-visual documents (Z3): Documents that record textile ICH-related information with audio and video as the carrier.

(4) Electronic documents (Z4): Documents that are stored in computers, servers and other devices with electronic data as the carrier.

2) Second Dimension: Content Theme Classification

According to the core content of documents, textile ICH documents are divided into four categories:

craftsmanship category, inheritance category, cultural category, and application category. The specific classification standards are as follows:

(1) Craftsmanship category (N1): Documents that record the process flow, technical points, operation specifications and other contents of textile ICH.

(2) Inheritance category (N2): Documents that record the inheritance pedigree, inheritor information, inheritance stories and other contents of textile ICH.

(3) Cultural category (N3): Documents that record the cultural connotation, folk custom correlation, historical evolution, artistic value and other contents of textile ICH.

(4) Application category (N4): Documents that record the application of textile ICH in modern design, product development, tourism industry, education and teaching and other aspects.

3) Third Dimension: Inheritance Value Classification

According to the inheritance value of documents, textile ICH documents are divided into three categories:

core documents, important documents, and general documents. The specific classification standards are as follows:

(1) Core documents (J1): Documents that have extremely high historical value, artistic value and academic value, directly reflect the core craftsmanship and cultural connotation of textile ICH, and have uniqueness and non-renewability.

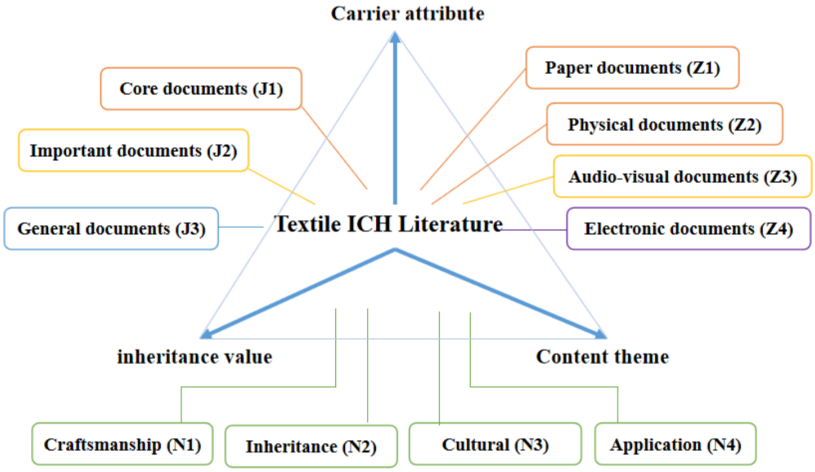

FIGURE 1. "Three-dimensional Integrated" Classification Framework

(2) Important documents (J2): Documents that can comprehensively reflect the inheritance context and development status of textile ICH and have high utilization value and research value.

(3) General documents (J3): Documents that provide auxiliary information for the research and inheritance of textile ICH and have relatively low utilization value and research value.

4) Classification Coding Rules

The coding method of "carrier attribute code - content theme code - inheritance value code - serial number" is adopted to classify and code textile ICH documents. For example, Z1-N1-J1-001 means: Paper document (Z1) - Craftsmanship category (N1) - Core document (J1)

- No. 1 document.

The serial number adopts three-digit digital coding, increasing from 001 in turn to ensure that each document has a unique classification code. For documents that cross multiple content themes (N1-N4) simultaneously, a "main theme + auxiliary theme" coding extension rule is added. The main theme is determined according to the core content of the document, and the auxiliary theme is indicated by adding a suffix code. For example, Z1-N1&N3-J1-002 means: Paper document (Z1) - Main theme: Craftsmanship category (N1) - Auxiliary theme:

Cultural category (N3) - Core document (J1) - No. 2 document. At the same time, in the metadata description, a special "cross-theme annotation" field is set to detail the specific content of multiple themes, so as to ensure the accuracy and comprehensiveness of document classification.

D. IMPLEMENTATION PROCESS OF CLASSIFICATION MANAGEMENT

1) Document Screening and Identification

The library sets up an identification team composed of librarians, ICH protection experts and textile industry scholars to evaluate the authenticity, completeness and value of the collected textile ICH documents.

2) Classification Coding and Cataloging

According to the "three-dimensional integrated" classification framework, the documents that pass the identification are classified and coded, and the Textile ICH Document Classification and Cataloging Form is filled in (see Table 1).

3) Collection and Dynamic Management

Physical documents are stored in separate libraries according to carrier types:

- Paper documents are stored in a temperature and humidity-controlled characteristic collection library; physical documents are stored in professional display cabinets with anti-oxidation and anti-mildew functions; audio-visual documents are separately established in audio-visual archives;
- Digital resources are stored in dedicated servers and backed up to the cloud synchronously.

IV. CONSTRUCTION OF THE DIGITAL SERVICE MODEL FOR TEXTILE ICH DOCUMENTS IN LIBRARIES

A. MODEL CONSTRUCTION LOGIC

Based on the core logic of "resource digitalization - organization standardization - service precision - sharing collaboration", a full-process digital service model covering four links of digital collection, storage, organization and service is constructed to realize the dynamic inheritance of textile ICH document resources.

Digital intelligence technology is deeply integrated into each link of the model: in the digital collection stage, AI image recognition technology is used to automatically identify textile patterns and craftsmanship details; in the digital organization stage, natural language processing technology is used to extract key information and realize semantic

TABLE 1. Textile ICH Document Classification and Cataloging Form (Example)

Classification Code	Document Title	Carrier Type	Content Theme	Inheritance Value Level	Source	Preservation Status
Z1-N1-J1-001	Handwritten Copy of Tiangong Kaiwu·Naifu	Paper Document	Weaving Craftsmanship	Core	Archaeological Excavation	Good
Z2-N1-J1-002	Yunjin Zhuanghua Satin Loom	Physical Document	Tool Making Craftsmanship	Core	Donated by Inheritor	Average
Z3-N2-J2-056	Interview Video of Suzhou Embroidery Inheritor Yao Jianping	Audio-visual Document	Inheritance Story	Important	Special Collection	Good
Z4-N4-J3-128	Batik Cultural and Creative Product Design Scheme Collection	Electronic Document	Application Development	General	Enterprise Cooperation	-
Z1-N1&N3-J1-002	Ancient Brocade Pattern and Cultural Symbol Record	Paper Document	Craftsmanship (Main), Cultural (Auxiliary)	Core	Private Collection	Good

association; in the service stage, intelligent recommendation algorithms are used to push personalized resources to users according to their usage habits and research needs.

B. IMPLEMENTATION STRATEGIES FOR THE FOUR CORE LINKS

1) Digital Collection: Adopting the "Hierarchical Collection + Technology Adaptation" Model

(1) Core documents: High-precision collection technology is adopted for rare ancient books and precious physical objects.

- The scanning resolution of paper documents $\geq$ 600dpi. This resolution standard is determined based on the analysis of textile ICH document characteristics and expert opinions. For general textile pattern and text recording, 600dpi can meet the requirements of clear reproduction of details. For documents with extremely complex weaves or subtle texture changes that need to capture cultural connotations, multi-spectral imaging technology (with a spectral range of 400-1000nm) is supplemented to realize the comprehensive recording of surface and internal information.
- Physical documents adopt 3D laser scanning (accuracy 0.01mm) + 4K high-definition photography. For general physical documents such as common textile samples, the 3D laser scanning accuracy is adjusted to 0.1mm to balance preservation effects and storage pressure. The 0.01mm high precision is only used for core physical documents with extremely high artistic and historical value (such as rare textile tools and unique fabric samples), which is necessary to accurately record the craftsmanship details and structural characteristics of the objects to support subsequent academic research and craftsmanship restoration.
- Audio-visual documents adopt lossless transcription technology (audio sampling rate $\geq$ 48kHz, video resolution 4K);

(2) Important documents: Standard collection technology is adopted.

- The scanning resolution of paper documents is 300dpi;
- Audio-visual documents are transcribed into MP4 and WAV standard formats;

(3) General documents: Batch collection technology is adopted, and digital conversion is quickly completed through OCR recognition and batch scanning.

2) Digital Storage: Constructing a "Hybrid Storage + Security Protection" System

- Storage architecture:
  Local servers store commonly used resources (access frequency $\geq$ once a month), and Alibaba Cloud OSS stores backup data and low-frequency access resources;
- Data security:

Establish a "three-copy backup" mechanism (local + off-site + cloud), and adopt AES-256 encryption technology to protect data transmission and storage security;

- Format compatibility:
  Unify conversion into general formats: PDF/A (long-term preservation format) for text, TIFF (archiving) + JPEG (browsing) for images, and MP4 + WAV for audio and video.

3) Digital Organization: Establishing a "Metadata + Semantic Association" System

- Metadata standards:
  Referring to GB/T 30229-2013 Metadata Specification for Intangible Cultural Heritage, formulate the Detailed Rules for Metadata of Textile ICH Documents (see Table 2);
- Semantic association:
  Using knowledge graph technology to construct a five-element association network of "document - inheritor - craftsmanship - region - application".

V. EMPIRICAL ANALYSIS AND CASE VERIFICATION

A. EMPIRICAL OBJECTS AND DATA SOURCES

Ten representative domestic libraries (3 public libraries, 4 university libraries, and 3 professional libraries) were selected for empirical research, and data were collected through questionnaires, data statistics, user interviews and other methods. This study was approved by the Ethics Committee of Zhejiang University of Science & Technology, and was performed in accordance with the principles of the Declaration of Helsinki. All eligible participants signed an informed consent form.

B. PRACTICAL EFFECT OF THE CLASSIFICATION MANAGEMENT SYSTEM

Empirical data show that after adopting the "three-dimensional integrated" classification system, the management efficiency of textile ICH documents in libraries has been significantly improved:

- The classification accuracy rate increased from 62% to 93%, and the average retrieval time was shortened by 40% (from 8.5 minutes/time to 5.1 minutes/time);
- The completeness rate of document cataloging increased from 58% to 90%, and the missing rate of core fields decreased from 35% to 8%;
- The cross-library resource sharing rate increased from 28% to 65%, solving the problem of resource dispersion (see Table 3).

To verify that the increase in cross-library resource sharing rate is mainly due to the proposed classification system, this study adopts a control variable method for analysis. By selecting libraries with similar network infrastructure levels and not affected by major policy adjustments during the same period as the control group, it is found that the cross-library resource sharing rate of the experimental group (adopting the proposed classification system) increased by 37%, while the control group only increased by 5%-8%. This shows that the proposed classification system plays a key role in promoting cross-library resource sharing.

C. USER FEEDBACK ON THE DIGITAL SERVICE MODEL

Through a questionnaire survey of 456 users, the overall satisfaction with digital services reached 89%, among which:

- Academic users have the highest satisfaction with "special database" and "bibliometric analysis" services (91%);
- The recognition of ICH inheritors for "craftsmanship video library" and "online consultation" services reached 94%;
- Teenage users have the highest participation in "VR interactive experience" and "ICH games", with an average daily usage time exceeding 30 minutes;
- The satisfaction of public users with "online exhibitions" and "interactive courses" reached 87%.

D. TYPICAL CASE: SUZHOU LIBRARY'S "SUZHOU EMBROIDERY ICH DIGITAL CULTURAL CENTER"

Focusing on the regional characteristic Suzhou embroidery ICH, Suzhou Library applied the classification management system and digital service model constructed in this paper and achieved remarkable results:

1) Classification Management

Using the "three-dimensional integrated" framework, more than 5,200 Suzhou embroidery documents were classified and coded. Core documents (such as the handwritten copy of Shen Shou's Xueyi Embroidery Manual) were coded as Z1-N1-J1-017 to achieve precise management; for 320 cross-theme documents (such as Suzhou embroidery pattern design and cultural connotation research documents), the "main theme + auxiliary theme" coding method was adopted for classification, and the cross-theme annotation field was filled in to ensure accurate retrieval.

2) Digital Construction

Collected 320 hours of Suzhou embroidery craftsmanship videos and 86 3D physical models, constructed a metadata system containing 18 fields, and developed semantic association retrieval functions; among them, 12 core physical models (such as ancient Suzhou embroidery looms) adopted 0.01mm high-precision 3D scanning, and the rest adopted 0.1mm standard precision scanning, which reduced storage space by 40% compared with full high-precision scanning while ensuring the preservation effect.

3) Service Effect

Created three sections: "craftsmanship inheritance", "online exhibition" and "interactive experience", with a cumulative access volume of over 800,000 person-times, and trained

TABLE 2. Core Field Table of Textile ICH Document Metadata

Field Category	Core Fields	Field Description
Identification Information	Resource Identifier, Classification Code, Title	Uniquely identify documents and associate with classification system
Content Information	Content Abstract, Subject Keywords, Craftsmanship Type, Inheritance Pedigree	Describe the core content and ICH characteristics of documents
Carrier Information	Carrier Type, Specification, Preservation Status	Record the physical attributes of documents
Management Information	Collection Time, Digitization Time, Storage Location	Manage the entire digital process
Permission Information	Access Permission, Usage Restriction	Standardize the scope of resource use

TABLE 3. Comparison Before and After the Implementation of the Classification Management System

Evaluation Index	Before Implementation	After Implementation	Improvement Range
Classification Accuracy Rate	62%	93%	31%
Average Retrieval Time	8.5 minutes/time	5.1 minutes/time	40%
Cataloging Completeness Rate	58%	90%	32%
Cross-library Sharing Rate	28%	65%	37%
Staff Classification Efficiency	25 copies/day	42 copies/day	68%

more than 1,200 ICH inheritors through online courses ,winning the title of " National Library Characteristic Service Brand".

VI. CONCLUSION AND PROSPECT

A. RESEARCH CONCLUSION

(1) Textile ICH document resources have characteristics such as diversity, scarcity and regionality, and are classified according to the three-dimensional framework of "carrier attribute - content theme - inheritance value";

(2) The constructed full-process digital service model of "digital collection - storage - organization - service" has realized the transformation of resources from static preservation to dynamic service;

(3) Empirical research shows that under the condition of controlling external interference factors, the classification management system and digital service model can effectively improve the management efficiency and service quality of textile ICH documents in libraries. The cross-library sharing rate has increased by 37%, and the user satisfaction rate has reached 89%. The research results have been verified in practical applications and have certain practical value.

B. OPTIMIZATION SUGGESTIONS

(1) Policy level: Promote the establishment of national unified classification and metadata standards for textile ICH documents;

(2) Technical level: Introduce artificial intelligence technology to realize automatic document classification and semantic association, and use blockchain technology to protect the copyright of digital resources;

(3) Talent level: Cultivate compound talents with knowledge of library science, textile science and ICH protection, and improve the professional ability of practitioners through school-enterprise cooperation and special training.

AUTHOR CONTRIBUTIONS

Tao Xu designed, collected and analyzed the data, and drafted the manuscript. Tao Xu conducted the study, critically revised the manuscript for important intellectual content, and gave final approval of the version to be published. Tao Xu participated fully in the work, take public responsibility for appropriate portions of the content, and agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

CONFLICTS OF INTEREST

The author declares no conflict of interest.

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