

---

AI translation · View original & related papers at  
[chinaxiv.org/items/chinaxiv-202304.00120](https://chinaxiv.org/items/chinaxiv-202304.00120)

---

## Practices and Implications of Oral History Projects in Selected Countries from the Perspective of Digital Humanities: Postprint

**Authors:** Deng Jun, Wang Ruan, Zhong Chuyi, Zhang Zishu, Song Xueyan

**Date:** 2023-04-01T16:15:59+00:00

### Abstract

[Purpose/Significance] To examine and review oral history projects in selected countries, summarize successful development experiences, and provide reference for the practice and development of oral history projects in China. [Method/Process] Through methods such as web surveys, literature research, and email consultation, this study investigates oral history projects in selected countries, and illuminates their practices from four dimensions: resource collection, resource organization and description, resource storage and utilization, and resource sharing and promotion. [Results/Conclusion] Based on the current research status of oral history projects in China, the following recommendations are proposed: emphasize resource collection and accumulation, and explore diversified collection models; strengthen metadata management awareness and improve the cataloging standards system; adopt a user-demand-oriented approach with technology-assisted precise “targeted” services; and construct a new social media landscape to promote resource dissemination and sharing.

### Full Text

## Practice and Enlightenment of Oral History Projects in Selected Countries from the Perspective of Digital Humanities

**Deng Jun, Wang Ruan, Zhong Chuyi, Zhang Zishu, Song Xueyan**

School of Management, Jilin University, Changchun 130022

### Abstract:

[Purpose/Significance] This study investigates and reviews oral history projects in selected countries, summarizes successful construction experiences, and provides references for the practice and development of oral history projects in

China. [Method/Process] Through network surveys, literature research, and email consultation, oral history projects in selected countries were investigated, and their practices were revealed from four dimensions: resource collection, resource organization and description, resource storage and utilization, and resource sharing and promotion. [Result/Conclusion] Based on the current status of oral history projects in China, this paper proposes the following recommendations: emphasize resource collection and accumulation and explore diversified collection models; strengthen metadata management awareness and improve the description standard system; adopt user needs as the orientation and leverage technology to enable precise “targeted” services; and construct a new social media pattern to promote resource promotion and sharing.

**Keywords:** digital humanities; oral history; project practice

**Classification Number:** G270

**DOI:** 10.13266/j.issn.0252-3116.2020.17.003

Digital humanities provides innovative perspectives and new research paradigms for traditional humanities research. Currently, international digital humanities research hotspots can be divided into four major domains: digital preservation of cultural heritage, development of digital history projects, construction of digital humanities infrastructure, and library services oriented toward digital humanities [1]. As digital cultural heritage resources, oral history materials primarily exist in the forms of text, images, audio, and video, transmitting historical memory through their unique humanistic attributes. With the continuous development and maturation of oral history, the need for practical research on oral history projects in the digital humanities field—characterized by interdisciplinary integration—has become increasingly prominent, as the organization, development, dissemination, and utilization of massive humanities resources such as cultural heritage urgently require public participation. The author’s investigation reveals that during the accumulation of numerous projects, oral history initiatives in some countries lack a complete and systematic development framework, making it difficult to adapt to and address the transformations brought by the digital humanities era. Based on this, this paper adopts a digital humanities perspective, employing network surveys, literature research, and email consultation methods to track and clarify the research progress of oral history projects in selected countries (represented by the United States, the United Kingdom, and Singapore). It attempts to present the diverse, rich, and well-developed operational mechanisms and development characteristics from four dimensions: resource collection, resource organization and description, resource storage and utilization, and resource sharing and promotion, thereby helping to accelerate and guide the practice of oral history projects in China and provide direction for their in-depth development and research.

## 1 Related Concepts

The oral history project workflow system can be viewed as an integrated framework of resource collection → resource organization and description → resource

storage and utilization → resource sharing and promotion, while digital humanities technological methods enable resources to undergo deep semantic description and revelation before multidimensional semantic dissemination.

### 1.1 Digital Humanities

Digital humanities originates from humanities computing and represents the result of the integration between digital technology and humanities development. Exploring its research characteristics and knowledge structure can promote theoretical research and practical innovation in digital humanities. The academic community has not yet reached a consensus on the concept of “digital humanities.” Digital humanities began with the text-based digital humanities pioneered by R. Busa in Italy in 1949 [3], which filters, mines, interprets, associates, and reinterprets humanities knowledge through computation, data analysis, visualization, and other methods to reshape humanities knowledge and “redraw the contours” of academic fields [4]. The author believes that digital humanities uses intelligent information technology as a tool and humanities disciplines as research objects to achieve deep integration, storage, retrieval, and utilization of digital resources for human cultural heritage.

### 1.2 Oral History

Currently, no consensus has been reached on the definition of oral history. From the perspective of historical research, historians define it as oral history; archivists define it as oral archives from an archival dimension; and some scholars define it as oral memory from individual, community, and social memory perspectives. The diversity of disciplinary perspectives reflects its broad application fields. In the digital humanities field characterized by interdisciplinary integration, the digitization, online collaborative construction and sharing, and digital communication of oral history resources have become mainstream trends.

### 1.3 Digital Humanities and Oral History

From humanities computing to digital humanities, this conceptual evolution reflects the profound influence of the technological environment on research paradigms. The digital revolution, represented by digital recording, management, dissemination, and exchange, has had a far-reaching impact on the development of oral history [5] and brought about transformation and innovative development of the academic community. Digital humanities technological methods endow oral history with spatial and three-dimensional qualities, expanding the depth, breadth, and dimension of oral history dissemination. On the one hand, the continuous innovation and application of digital humanities technological methods drive significant changes in the form of oral history, which has experienced three different technological environments: the audio recording era, the video recording era, and the network era. On the other hand, studying the continuously evolving and changing digital humanities technological methods can effectively assist humanities scholars in understanding the essence of oral

history and broadening research perspectives. The deeper the exploration of the digital humanities technological methods relied upon by projects, the easier it is to thoroughly understand the progress of oral history practice. As humanities research becomes closely connected with regional, national, and social development, the combination of oral history and digital humanities is both an established reality and an inevitable trend in the open science environment.

## 2 Literature Review

Literature reading results show that network surveys [6], literature research [7], and case analysis [8] are commonly used methods in investigating foreign oral history projects. In terms of geographical coverage, scholars have focused on oral history projects in the United States [9-10], the United Kingdom [11], and Singapore [12-15], with the United States, as a pioneer in oral history practice, receiving higher attention. Universities and libraries have become primary practice venues. In terms of research content, Chen Shuixiang [16] elaborated on the characteristics of oral history practice in American universities from the perspectives of implementation entity construction and disciplinary distribution, collection models and organization/description, service content and team composition, funding sources, and research projects. Zhang Yahong [17] conducted an in-depth investigation of the Samuel Proctor Oral History Program at the University of Florida, analyzing its institutional organization and personnel composition, user services and educational functions, research projects, collaborative institutions, and funding sources. As oral history becomes increasingly popular and promoted, libraries (such as university libraries and presidential libraries) have gradually become important institutions for project practice. From a macro perspective, Zhong Yuan et al. investigated oral history projects in 10 university libraries in the United States [18]; from a micro perspective, scholars have deeply explored individual university library oral history projects (such as Louisiana State University Library [19], University of California Bancroft Library [20], and University of Georgia Russell Library [21]). Yang Xiangyin focused on presidential libraries, outlining oral history projects in 10 presidential libraries and one Nixon Presidential Materials Committee in chronological order of U.S. presidents' terms [22].

In summary, scholars have mostly focused on fine-grained analysis of individual oral history projects. Although some scholars have explored project development models and paths from a macro perspective, the research sample size is relatively small. With the vigorous development of digital humanities technologies and methods, there is an urgent need to deeply explore the application of digital humanities technological methods in projects and comprehensively grasp the overall project characteristics from a macro level. Therefore, this paper employs network surveys, literature research, and email consultation methods to analyze and mine 31 oral history projects in selected countries (represented by the United States, the United Kingdom, and Singapore), trace their development context, explore their essence, and systematically examine the projects

from four dimensions: resource collection, resource organization and description, resource storage and utilization, and resource sharing and promotion, offering constructive suggestions to guide the practice of oral history projects in China.

### 3 Project Practice Exploration

#### 3.1 Resource Collection

Currently, oral history resource collection models in selected countries are primarily manifested in four modes: self-collection, donation, commission, and cooperation. The self-collection mode refers to project development entities independently conducting resource collection to obtain high-quality firsthand resources, with clear division of labor among collectors and high autonomy in project progress control and resource scheduling, such as the City College of San Francisco Oral History Archives Project—Telling Their Stories [23]. Inspired by the digital age, the American Folklife Center independently developed a professional online resource collection platform called Oracle Application Express (APEX) to collect oral interview records from organizations and individuals worldwide. As of July 1, 2019, it had collected over 6 million photos, manuscripts, recordings, and moving images from around the world [24], and the resources collected through this platform are published and made available on the official website of the Library of Congress [25]. Some projects, due to funding shortages, cannot invest sufficient human and material resources in resource construction and thus adopt the donation mode. Donated resources come from researchers, social figures, and individuals, and are typically named after the donors, with unique content, such as the Russell Library Oral History Project [26], which covers teaching career records and war diplomatic history, like the H.P. Henderson, Sr. Oral History Collection [27].

The commission mode generally involves project development entities commissioning researchers, social institutions, and professional oral history organizations to collect resources. This model often has a certain orientation, requiring the commissioned party to select specific themes for resource collection according to the commissioner's requirements, with the final presentation format also determined by the commissioner. For example, on the 79th anniversary of its establishment, the Harriman Institute hired the Interdisciplinary Center for Innovative Theory and Empirics (INCITE) at Columbia University to help document the institute's development history [28]. The cooperation mode refers to collaborative resource collection among various project development entities following the principles of mutual benefit and complementary advantages, such as the London School of Economics and Political Science jointly working with the University of Cambridge to collect life history resources from immigrants who left Bangladesh after 1947 [29].

Thus, diversified and flexible models play a “boosting” role in oral history resource collection. Project development entities can not only independently collect resources when conditions are mature but also adopt the donation mode

to reduce resource construction expenditures. They can obtain advantageous resources through commissioned professional institutions and fully mobilize the enthusiasm of other social forces and public participation in cooperative collection. Simultaneously, during the collection process, digital humanities technologies and platforms are utilized to enhance the acquisition rate, awareness rate, and utilization rate of oral history resources, effectively integrating multi-party resources, compensating for existing collection gaps, and promoting the construction of distinctive and diverse oral history resource networks, providing sufficient and powerful resource guarantees for resource organization and description and maximizing resource effectiveness.

### 3.2 Resource Organization and Description

The collected oral history resources are massive in quantity and uneven in quality, making effective organization and indexing particularly important. Metadata is used to describe data attribute information, thereby assisting data retrieval, providing standardized and accurate description formats for oral history resource organization and utilization, greatly improving information search efficiency, and revealing hidden relationships between resources. Survey results show that project development entities in selected countries use metadata cataloging methods to organize, describe, and reveal resources, specifically manifested in two aspects: diversification of cataloging standards and trend toward fine-grained resource description.

**3.2.1 Diversification of Metadata Cataloging Standards** Selected countries' oral history projects exhibit diversified characteristics in metadata cataloging standards, with fine granularity in resource description, providing a solid foundation of standards and resources for the digital development of oral history resources. In an environment of both digital opportunities and challenges, only by organically combining resources, technology, and standard methods, conducting in-depth development and utilization of resources layer by layer and category by category, and continuously extending from the basic level to the expansion level and supplementary level, can a more efficient, flexible, and convenient digital oral history resource system be built.

- (1) **Universal Standards.** Project development entities mostly adopt universal standards to index scattered oral history resources. For example, the Chicago Architects Oral History Project uses the DC standard, the Columbia University Center for Oral History projects use the MARC standard, and the Princeton University Department of Mathematics Oral History Project applies the ISAD(G) standard. In terms of cataloging purpose, MARC is primarily used for user retrieval of library collections, while DC is mainly for information retrieval. Regarding cataloging objects, MARC focuses on organizing bibliographic data, while DC is suitable for organizing and revealing dynamic information. ISAD(G) is a commonly used metadata standard for cataloging oral history resources in universi-

ties and LAM (Library, Archive, and Museum) institutions under network environments, helping users find useful oral history resources in various archives and collections.

- (2) **Composite Standards.** When project development entities aim not just to “catalog” data but to “preserve” it long-term, composite standards become a viable option. For complex oral history resources, ensuring continuous and effective information services requires solving long-term preservation issues. METS provides effective means for preserving and managing digital resources [30]. For instance, the British Fashion Oral History Project combines DC and METS dual metadata standards, meeting both the description needs for complex data objects and solving the long-term preservation and effective management issues of oral history resources.
- (3) **Extension of Existing Standards.** Given that existing metadata cannot fully index all description items of oral history resources, it is necessary to increase indexing levels by modifying and extending existing metadata to improve resource indexing depth and accuracy. For example, The Ohio State University Oral History Program first uses MARC for indexing, then converts MARC to MARCXML, and further converts it to modified DC [31], refining resource indexing granularity and enhancing resource accessibility.
- (4) **Self-built Standards.** Notably, some project development entities choose to build their own metadata standards to demonstrate project advantages and characteristics, such as the Oral History Centre, National Archives of Singapore. Unfortunately, despite multiple online communication attempts, the Oral History Centre of Singapore has not disclosed detailed description items of its self-built metadata standard.

**3.2.2 Trend Toward Fine-grained Resource Description** In the digital humanities environment, resource description tends toward refinement and precision. The more metadata description items, the more accurate the indexing, the richer the indexing levels, the finer the granularity, and the more scattered resources can be acquired at the knowledge unit level [38]. Metadata description items in selected countries’ oral history projects roughly consist of basic items, extended items, and supplementary items. Basic items generally include Title, Author, Description, Summary, Collection time, Collection name, Collection creator, format, etc. Extended items include Contributor, Creator, Provenance, Biographical/Historical Note; Subjects; Dates; Notes; Also Listed Under; Language; Format; Bookmark As, etc. Supplementary items include Located In; Access Restrictions; Licensing Statement; Website URL; Links and access; Item note, etc. From a certain perspective, basic items form the foundation of resource description, extended items supplement basic items, and supplementary items further extend the content of basic and extended items. The finer the metadata description density, the more conducive it is to developing and pre-

senting the diverse and deep historical and cultural information hidden in oral history resources, providing content and technical support for database construction. Simultaneously, the granularity of metadata description also affects the depth of data indexing, which in turn influences the performance of retrieval functions to some extent.

### 3.3 Resource Storage and Utilization

The development of digital humanities technologies has enriched the presentation forms of oral history resources and promoted their digital preservation and access. In terms of form and content, the digital storage and utilization of oral history resources mainly rely on static or dynamic websites and databases with browsing and retrieval functions to present and disseminate oral history transcripts, audio-visual materials, and corresponding information. Technically, project development entities in selected countries mostly apply digital technology, multimedia technology, and database technology. Digital technology is the foundation for digitizing oral history resources. Multimedia technology can effectively integrate scattered oral history resources, presenting diverse forms of text, images, sound, and video. Database technology expresses oral history knowledge elements and their attributes in a structured and formalized manner and constructs semantic relationships between knowledge elements, thereby achieving semantic and orderly organization of knowledge and providing open data access and knowledge services. Therefore, as important channels for aggregating rich oral history resources and providing data services to users, oral history databases that integrate data input, output, and management functions are crucial platforms for managing, developing, and utilizing oral history resources. Building oral history databases to provide oral history services to users has become a mainstream trend in selected countries.

**3.3.1 Specialized Databases** The Veterans History Project database of the American Folklife Center [39] serves as a model for database construction. This database provides specific services for U.S. war history research and historical teaching, organizing rich and vivid oral resources into specialized educational materials to support teaching and research. Additionally, the University of Nevada, Las Vegas Libraries integrates all oral history project resources into specialized databases and edits various interview materials into literature resources uploaded to the library website for sharing with users [40].

**3.3.2 Platform Statistical Analysis Functions** The Samuel Proctor Oral History Program (SPOHP) oral history database provides four categories—language, publisher, subject, and geographic region—through the Smathers Library on the University of Florida Digital Collections website [41]. Simultaneously, the database provides monthly visitor data and user browsing statistics from 2011 to the present.

**3.3.3 Database Retrieval Functions** Given differences in users' information literacy and practical experience, their knowledge backgrounds and behavioral preferences vary. Therefore, different users have different retrieval capabilities and habits. The University of Leicester provides characteristic retrieval methods for users, such as browse map, browse by tag, search by range of ID#s (example: 1-4,156,79), search by collection, search by type, search by exhibit, featured/non-featured, geographic address, and geographic radius (miles) [42]. Diversified retrieval methods facilitate in-depth resource mining from content perspectives for users, promote linking of oral history resources on the same theme, and realize the transition from relevance retrieval based on coarse-grained resources to refined retrieval of fine-grained fragmented knowledge units.

Although most project development entities have established oral history databases and provided multi-functional service methods, offering important means for users to discover and access online oral history resources, the continuous development of digital humanities technologies constantly stimulates user demands. Users are no longer satisfied with online access and retrieval of resources but hope to browse and even download complete transcripts or audio-visual records anytime and anywhere for free. Based on this, more and more websites or databases are showing a development trend from simple retrieval to full-text retrieval. For example, the Lyndon Baines Johnson Library not only provides catalog browsing but also offers full-text PDF download functions and full-text retrieval services [43].

In summary, digital humanities technologies such as digital technology, multimedia technology, and database technology serve as mainstream technologies applied by project development entities in selected countries, opening new channels for building oral history databases. On the one hand, databases possess unparalleled advantages over traditional data preservation, expanding the presentation forms and usage space of oral history resources. On the other hand, databases break traditional text-based recording methods, providing multi-dimensional and three-dimensional resource presentation effects for oral history resource storage and utilization, and realizing online access, retrieval, and reading of oral history resources. Therefore, the substantive integration of digital humanities technology and oral history resources drives the symbiosis of "digital" and "humanities." Technology can help humanities scholars innovate research fields, broaden research perspectives, and open up research ideas to organize "scattered" oral history resources. Meanwhile, the demand for resource development and utilization drives continuous technological development, improvement, and upgrading. The development and utilization of oral history resources require technical tools as assistance to make them "helpful to people" and "beneficial to people."

### 3.4 Resource Sharing and Promotion

The rise and development of social media are changing the presentation forms of oral history resource recording, preservation, cataloging, retrieval, and sharing,

continuously challenging traditional transcript-based oral history models. Open social media is not only the preferred platform for resource sharing and promotion but also an experience platform for users to express opinions and share experiences, helping to improve the utilization rate of oral history resources. The author's investigation found that oral history projects in selected countries basically use one or multiple social media platforms to publish information synchronously or alternately, presenting a diversified communication pattern that effectively integrates text, images, audio, and video, promotes resource sharing and promotion, and enhances positive interaction among users, social media, and resources, as shown in Table 2 .

The British Antarctic Oral History Project (BAOHP), the British Entertainment History Project, and the Voices of Volunteering project select mainstream social media such as Twitter and Facebook. The Presidency/Presidential Oral Histories project adds YouTube to existing Twitter and Facebook platforms. YouTube utilizes intelligent technology to upgrade various aspects including supply, production, and dissemination, applying multiple strategies to activate the industrial chain and bringing numerous sharing and dissemination values to oral history projects.

With the continuous development of social media, most projects provide not only basic social media but also special social media services. The Travelers Times project by Rural Media Company in the West Midlands offers Vimeo media interaction services. Vimeo is a high-definition video podcast website that allows users to upload, share, and store videos, and also enables users to comment on videos. The source video files can be freely downloaded, and its greatest feature is the ability to switch between high-definition videos, allowing users to view more detailed interview footage. The Vietnam War Oral History Project adds CIS and Humanities handshake social media, which are internal communication platforms independently established by the University of Utah, greatly promoting resource sharing and dissemination within the campus. The Oregon Health & Science University Oral History Program adds LinkedIn, which can seamlessly cover high-end audience groups. Its advertising payment function and positioning function ensure that users reach professional audiences in relevant fields, ensuring that resource promotion is not affected by irrelevant click traffic. In the era of integrated virtual and real social interaction, users simultaneously own multiple social media accounts and share relevant information across platforms as a significant characteristic. The Voices of the Manhattan Project provides not only basic social media services but also uses Instagram for cross-border sharing. With up to 18 filter effects, it not only meets users' aesthetic needs and disseminates visual aesthetic values but also enhances personalized user experiences through a "sharing + community" communication model.

When users are not limited to enjoying oral history services provided by social media but hope to express their own comments and opinions on oral history resources, communication and interaction on social media platforms will con-

tribute to the healthy co-construction and sharing of oral history resources. Taking The AIDS Epidemic in San Francisco Oral History Project as an example, the project uses five social media platforms—Twitter, YouTube, Instagram, Facebook, and Soundcloud—to promote oral history resources. Among them, Soundcloud opens a “comment function,” facilitating users to express opinions synchronously while using oral history resources [54].

Notably, some project development entities adopt both domestic and international social media platforms. The Slade Archive Project at University College London provides over 170 social media platforms for users’ online use. Survey results show that Facebook, Twitter, Print, Email, Pinterest, Gmail, LinkedIn, Email App, Tumblr, and Messenger are mainstream social media tools commonly used by users. Simultaneously, the project also integrates popular domestic social media such as Baidu, Douban, Renren, Tencent, WeChat, and Sina Weibo, enhancing the project’s international influence and promoting the integration of domestic and international social media tools.

In short, social media services have a synergistic effect on data utilization and memory preservation, considering both short-term needs and long-term development from a dual perspective, breaking through time and space limitations, and achieving dual superposition of practical benefits and cultural values. Selected countries are widely welcomed by user groups for their rich variety of social media, inclusive communication channels, and convenience, enhancing user participation. Leveraging digital humanities technology to break traditional audio-visual limitations in virtual environments and break through the “collection cage” of plain graphic and audio-visual materials, they have realized the migration and virtual reconstruction of oral history resources from flat to multi-dimensional and three-dimensional fields, promoting resource sharing, communication, and promotion, and driving resource and knowledge inheritance and dissemination.

## 4 Implications and Recommendations

The above analysis of project characteristics shows that the oral history project system in selected countries is relatively mature. Digital humanities technological methods can provide technical support for the digital organization, management, and development of oral history resources, assist humanities scholars in protecting intangible cultural heritage, mining resource value, restoring historical truth, presenting social memory, and promoting the transformation and innovation of humanities disciplines. In response to the current status of oral history project practice in China, the author proposes the following recommendations:

#### 4.1 Emphasize Resource Collection and Accumulation, and Explore Diversified Collection Models

Project development entities in selected countries have formed their own collection characteristics during long-term resource collection and accumulation, adapting measures to local conditions, with flexible and diverse collection models, excelling in four modes: self-collection, donation, commission, and cooperation. Overall, the self-collection mode requires high professional knowledge backgrounds from project development entities; the cooperation model, while promoting complementary advantages among entities, carries resource infringement risks; commissioned collection typically involves high costs, requiring project development entities to seek professional oral history institutions with senior qualifications; although the donation model can effectively reduce investment in software and hardware facilities for project development entities, it lacks control over resource selection and subsequent resource updates.

Reflecting on the current status of oral history practice in China, Chinese project development entities currently mainly conduct relevant explorations centered around libraries, with relatively single development entities, weak oral history resource collection and accumulation, and fixed collection models dominated by self-collection. Therefore, in the digital humanities era, China should break through traditional models, absorb and learn from characteristic models of selected countries, and carry out resource collection work under diversified models, striving to build professional resource collection platforms and lay a solid foundation for resource database construction. Specifically, Chinese development entities should first transform toward “diffusion and spread,” actively participating in the oral history resource collection process and creating a compatible and inclusive multi-entity collaborative pattern of “libraries, archives, and museums as the main body, universities and research institutes as support, and public participation as supplement.” Second, each development entity should be adept at using digital humanities technological means to enhance the specialization, informatization, and depth of oral history resource collection, while expanding existing resource collection models, flexibly selecting appropriate resource collection models and achieving free switching between models to improve resource acquisition convenience, ultimately aggregating into a “resource storage and distribution center” for further development and utilization.

#### 4.2 Strengthen Metadata Management Awareness and Improve the Cataloging Standard System

Project development entities in selected countries have accumulated a large amount of rich oral history resources through meticulous and systematic project practices, with flexible collection models and strong planning in metadata management. They not only pay attention to the selection of metadata cataloging standards but also focus on the depth of metadata resource description, especially fine-grained resource description. At present, due to a late start, Chinese oral history project development entities are relatively weak in resource

collection and accumulation, primarily using universal standards for metadata cataloging, lacking the foresight and initiative to explore metadata standards in other countries. Description items are also somewhat scarce, generally only including a few basic items such as “interviewer,” “interviewee,” and “interview time,” with insufficient attention to detailed description, limiting the depth and breadth of resource development.

Currently, China is vigorously carrying out intangible cultural heritage protection work and urban memory projects. Chinese oral history practitioners should seize this opportunity, accumulate a rich foundation of oral history resources according to their own development characteristics and actual needs, highlight the unique characteristics of Chinese oral history resources under theoretical guidance and digital humanities technology support, and simultaneously, in the process of resource description and revelation, refer to both international standards and foreign standards to align with the world in metadata cataloging, management, and construction, gradually forming a “universal + self-built” metadata application system with Chinese characteristics to contribute to the long-term development and utilization of oral history resources in China.

### **4.3 Adopt User Needs as Orientation and Leverage Technology to Enable Precise “Targeted” Services**

The construction of oral history databases in selected countries promotes sustainable service development through technological advantages and uses user satisfaction as the service endpoint. In contrast, the current status of oral history database construction in China shows that most project development entities have awareness but lack action, and have not yet formed mature technical paradigms. Therefore, the author provides rational suggestions from a technical service perspective to assist Chinese Oral History (COH) project practice, as shown in Figure 1 [Figure 1: see original paper].

**4.3.1 Digital Technology: Constructing the Foundation of Oral History Resources** Currently, most oral history resources in China are still in the archiving and preservation stage. Digital technology is the foundation for constructing oral memory resources for digital humanities research, generally analyzed from two perspectives: front-end implementation layer and back-end management layer, such as Web App implementation, CMS architecture, and data processing technology. It smoothly realizes the digitization and networking of original humanities materials and uses image visualization methods for knowledge creation and reproduction [55]. Introducing digital technology helps build oral history databases and accelerates the sharing and dissemination of oral history resources and the popularization of humanities knowledge.

**4.3.2 Data Management Technology: Constructing Oral History Service Systems** Digitization only achieves the mapping of traditional humanities materials to the digital world, enabling them to be stored, processed, and

displayed by computers. To fully leverage the role of digital media, domain knowledge must be organized according to knowledge units to construct a knowledge environment that simulates domain applications [56]. Data management technologies (such as ontology and linked data) organize and manage oral history resources, ordering scattered resources and constructing semantic relationships between knowledge elements to enhance knowledge services.

**4.3.3 Data Analysis Technology: Constructing Oral History Application Platforms** In building digital humanities application platforms, a large number of software applications and statistical analysis tools should be utilized, such as text analysis (including word frequency analysis, co-occurrence analysis, and relational analysis), statistical analysis, and social network analysis, to reveal complex social relationships among people, events, locations, and time in oral history resources.

**4.3.4 Visualization Technology: Constructing Intuitive Images of Oral History** Visualization technology is represented by VR/AR/GIS technology. With computer graphics and image processing technology, it can achieve intuitive manipulation and real-time interaction, mainly used for developing visualization tools, visualization application software, and graphics workstations [55]. In oral history resource practice applications, VR/AR technology can achieve “scene reconstruction” beyond time and space, assisting users in “traveling through” historical memory scenes. Using GIS technology’s spatial data collection, spatiotemporal data modeling, and multi-layer map overlay functions, it attempts to reproduce geographical landscapes in different time sections, conduct annotation, extraction, and structured organization of geographical data, and provide digital map image materials and structured geographical data for oral history research [57].

**4.3.5 Machine Learning Technology: Constructing Intelligent Service Systems for Oral History** For oral history resources, machine learning can replace manual work on a large scale for resource classification, organization, image and voice recognition, name recognition, pattern recognition, relationship discovery, cross-media retrieval, and knowledge search. Simultaneously, machine learning can also play unique advantages in intelligent services, making services more humanized, personalized, and precise.

Oral history databases or integrated platforms built with the support of the above technologies can not only maximize resource value but also leverage the precise “targeting” effect of technology to enrich the presentation forms of oral history resource achievements and optimize system performance.

#### 4.4 Build a New Social Media Pattern to Promote Resource Promotion and Sharing

Oral history projects in selected countries have greatly promoted resource sharing and utilization and facilitated open access to socialized knowledge through diversified social media patterns for oral history resource promotion. In contrast, China's social media promotion path theoretically should gather data from different media channels. However, in practice, due to China's different social media environment, it mainly focuses on Weibo, WeChat, and blogs, with relatively single sharing channels, making it difficult to improve public awareness of resource promotion, resulting in low resource utilization and high loss rates. Moreover, users find it difficult to express themselves freely and share resource links on social media platforms, easily causing waste of oral history resources and making it difficult to realize resource value. Therefore, in the "digital humanities" environment and under the concept of "serving humanities," China should firmly grasp development opportunities, make good use of new media and technologies to develop and utilize oral history resources, and build a diversified, complementary, efficient, and usable social media pattern.

On the one hand, the social media pattern should be diversified and complementary. China should accelerate the introduction of international social media, learn from others' strengths, enrich social media paths, accelerate the dissemination and sharing of oral history resources, and expand project influence. On the other hand, the social media pattern should be efficient and usable. Different social media platforms have different positioning algorithms, and each platform creates user profiles based on different users to provide personalized information, enriching communication channels for oral history resources. By expanding the scope of social media use and opening comment and communication communities, information silos can be further broken, user experience enhanced, and user interaction strengthened.

In short, the new social media form in China under the digital humanities perspective should be diversified and complementary, efficient and usable. It should not only have universal popularity to meet the development trend of niche users and satisfy personalized social needs but also gather four major characteristics: "sharing + community" communication, "professional + personalized" experience, "niche + precise" positioning, and "simple + convenient" operation. It should introduce mainstream international social media and develop sophisticated, professional, popular, and international social media products suitable for China's national conditions.

## Conclusion

In summary, conducting oral history projects is not only a new expansion of oral history resource construction but also a new attempt at oral history resource utilization. Foreign researchers drive oral history practice through "projects," using digital humanities technological methods to present diversified and visu-

alized graphics, images, sound, and video, building specialized databases, and achieving both “digital” humanities and “service” humanities, standardizing project operation mechanisms.

Undeniably, China’s oral history project practice has just started and has not yet formed a systematic and complete system, with service levels slightly lagging. Therefore, strengthening investigation and analysis of foreign oral history project practices, analyzing their characteristics and development patterns, learning from mature and stable practices and diversified paths, and combining them with the actual situation and development dilemmas of current oral history projects in China to propose optimization paths are of great significance for the practice of oral history projects in China and constitute the purpose of this study. From the perspective of development needs, on the one hand, collected oral history resources need to be digitized; on the other hand, digital humanities technological methods can provide technical support for the digital dissemination and communication of oral history. Meanwhile, based on the support of the concept of oral history cultural inheritance and the continuous vigorous development of digital humanities research, collaborative cooperation among cultural institutions such as LAM will also provide more practical help for public participation in humanities resource digital construction. Therefore, it can be foreseen that the research potential related to oral history in China’s digital humanities field is enormous, and digital and humanities need more vivid and profound integration.

## References

- [1] Zhou Chen. Characteristics and knowledge structure of international digital humanities research [J]. *Library Tribune*, 2017, 37(4): 1-8.
- [2] Gu Yi. Protection of digital cultural heritage and UNESCO guidelines [J]. *Journal of the National Library of China*, 2003(1): 40-44.
- [3] JONES S E. The emergence of the digital humanities (as the network is everting) [M]. Minneapolis: University of Minnesota Press, 2016: 3-15.
- [4] BURDICK A, DRUCKER J, LUNENFELD P, et al. Digital humanities: Changing the rules of knowledge innovation and sharing [M]. Translated by Ma Linqing, Han Ruohua. Beijing: China Renmin University Press, 2018.
- [5] Yang Xiangyin. The digital revolution and American oral history [J]. *Social Science Front*, 2016(3): 106-120.
- [6] Wei Qiaoming, Yan Xianglin. Analysis of American scientific and technological oral history collection projects based on network surveys [J]. *Archives Science Bulletin*, 2016(4): 50-55.
- [7] Zhang Yi, Zhang Yuheng. Collection and utilization of oral documents at the American Folklife Center [J]. *Library and Information Service*, 2019, 63(13): 145-151.
- [8] Wang Yulong. Network development and utilization of American oral history archival resources based on case analysis [J]. *Archives and Construction*, 2017(2): 21-24.

- [9] Liu Jiamin. Characteristics of American oral history and its reference [J]. *Lantai World*, 2017(1): 28-30.
- [10] Wang Peng, Fan Zhixin. Characteristics and enlightenment of American oral history work [J]. *China Archives*, 2019(6): 76-77.
- [11] Jiang Zhouling. Characteristic practice and enlightenment of the East Midlands Oral History Archive in the UK [J]. *China Archives*, 2018(11): 76-77.
- [12] Cai Zhiyuan. Singapore Oral History Centre [J]. *Library*, 2015(12): 6-9.
- [13] Zhang Huiping. Singapore oral archives and its enlightenment to China [J]. *Lantai World*, 2010(15): 9-10.
- [14] Zhang Jin'an. Learning from the Singapore National Archives and its oral history centre [J]. *Hubei Archives*, 2018(5): 34-41.
- [15] Zhao Hui, Jiang Zhimao. Singapore National Archives and its oral history centre [J]. *Beijing Archives*, 1999(4): 44-45.
- [16] Chen Shuixiang. Investigation and enlightenment of oral history work in American universities [J]. *Library Development*, 2018(5): 34-41.
- [17] Zhang Yahong. Research on the Samuel Proctor Oral History Program at the University of Florida, USA [J]. *Library Work and Research*, 2018(1): 29-34.
- [18] Zhong Yuan, Wu Zhenhuan. Investigation and analysis of oral history work in 10 university libraries in the United States [J]. *Library Journal*, 2019, 38(6): 83-91.
- [19] Wu Zhenhuan, Han Ling, Zhong Yuan. Research on oral history work at Louisiana State University Library, USA [J]. *Library Work and Research*, 2019(8): 41-45.
- [20] Zhu Xiaoxia. Research on oral history work at the Bancroft Library, University of California [J]. *Journal of the National Library of China*, 2018, 27(3): 56-62.
- [21] He Yanju. Investigation and analysis of the oral history program at the University of Georgia Russell Library [J]. *Library*, 2018(3): 89-94.
- [22] Yang Xiangyin. Oral history collections in U.S. presidential libraries [J]. *Library Journal*, 2000(8): 60-62, 64.
- [23] City College of San Francisco Oral History Archives Project [EB/OL]. [2020-01-17]. <http://www.banglasteries.org/links.html>.
- [24] American Folklife Center Collections and Research Services [EB/OL]. [2020-01-17]. <http://www.loc.gov/folklife/archive.html>.
- [25] GROCE N, LYONS B. Designing a national online oral history collecting initiative: the occupational folklore project at the American Folklife Center [J]. *Oral History Review*, 2013, 40(1): 54-66.
- [26] Russell Library Oral History Project [EB/OL]. [2020-01-17]. <http://www5.galib.uga.edu/russell/collections>
- [27] H.P. Henderson, Sr. Oral History Collection [EB/OL]. [2020-01-17]. <http://russelldoc.galib.uga.edu/russell/view?docId=ead/RBRL096HPH-ead.xml>.
- [28] Harriman Institute [EB/OL]. [2020-01-17]. <https://oralhistoryportal.library.columbia.edu/document.php?i>
- [29] London School of Economics and Political Science, University of Cambridge [EB/OL]. [2020-01-17]. <http://www.banglasteries.org/>.
- [30] METS [EB/OL]. [2020-01-17]. <http://www.loc.gov/standards/mets/index.html>.
- [31] WALSH M P. Repurposing MARC metadata for an institutional repos-

- itory: working with special collections and university press monographs [J]. Library Resources & Technical Services, 2011, 55(1): 33-44.
- [32] School of the Art Institute of Chicago [EB/OL]. [2020-01-17]. <http://digital-libraries.saic.edu/cdm/landingpage/collection/cao hp>.
- [33] Princeton University Library [EB/OL]. [2020-01-17]. <https://findingaids.princeton.edu/collections/AC057>.
- [34] Oral History Centre, National Archives of Singapore [EB/OL]. [2020-01-17]. [http://www.nas.gov.sg/archivesonline/oral\\_{{{history}}}{interviews}}/](http://www.nas.gov.sg/archivesonline/oral_{{{history}}}{interviews}}/).
- [35] Columbia University Center for Oral History [EB/OL]. [2020-01-17]. <https://oralhistoryportal.library.columbia.edu/project.php>.
- [36] British Library, London College of Fashion [EB/OL]. [2020-01-17]. <http://cadensa.bl.uk/uhtbin/cgiirsi/?ps=vO5COHwLQD/WORKS-FILE/20080043/18/X49/XTITLE/An+Oral+History+of+British+Fashion>.
- [37] The Ohio State University [EB/OL]. [2020-01-17]. <https://library.osu.edu/archives/oral-history>.
- [38] Hu Liyun. Library extension services based on oral history [J]. Library, 2015(12): 15-22.
- [39] American Folklife Center [EB/OL]. [2020-01-17]. <http://www.loc.gov/folklife/>.
- [40] University of Nevada, Las Vegas Libraries [EB/OL]. [2020-01-17]. [www.library.unlv.edu/speccol/collections/oral{histories}](http://www.library.unlv.edu/speccol/collections/oral{histories}).
- [41] Samuel Proctor Oral History Program [EB/OL]. [2020-01-17]. <https://ufdc.ufl.edu/oh4>.
- [42] University of Leicester [EB/OL]. [2020-01-17]. <https://leicester.omeka.net/items/search>.
- [43] Lyndon Baines Johnson Library [EB/OL]. [2020-01-17]. <http://www.lbjlibrary.net/collections/oral-histories/>.
- [44] British Antarctic Survey (BAS), BAS Club, UK Antarctic Heritage Trust (UKAHT), and Scott Polar Research Institute (SPRI) [EB/OL]. [2020-01-17]. <https://basclub.org/oral-history/>.
- [45] The History Project is run by a group of volunteers [EB/OL]. [2020-01-17]. <https://historyproject.org.uk/>.
- [46] Royal Voluntary Service's [EB/OL]. [2020-01-17]. <https://voicesofvolunteering.weebly.com/oral-history-clips.html>.
- [47] Miller Center [EB/OL]. [2020-01-17]. <https://millercenter.org/the-presidency/presidential-oral-histories>.
- [48] Rural Media [EB/OL]. [2020-01-17]. <https://www.traveller-times.org.uk/about>.
- [49] American West Center of the University of Utah Oral Histories [EB/OL]. [2020-01-17]. <https://awc.utah.edu/projects/vietnamwaroralhistoryproject.php>.
- [50] Oregon Health & Science University [EB/OL]. [2020-01-17]. <http://lib-guides.ohsu.edu/c.php?g=261520&p=1746553>.
- [51] Atomic Heritage Foundation; Los Alamos Historical Society [EB/OL]. [2020-01-17]. <https://www.manhattanprojectvoices.org/>.
- [52] Bancroft Library Oral History Center, University of California, Berkeley [EB/OL]. [2020-01-17]. <https://www.lib.berkeley.edu/libraries/bancroft-library/oral-history-center/projects/aids>.
- [53] Slade School of Fine Art, University College London [EB/OL]. [2020-01-17]. <https://www.ucl.ac.uk/slade/sladearchive/about-the-slade-archive>.
- [54] Wang Zizhou, Yin Peili. Pioneers in oral data collection and preservation—Bancroft Library of the United States [J]. Journal of Library Science in China,

2013, 39(1): 13-21.

[55] Su Min. Paths and enlightenment of digital humanities services in American university libraries [J/OL]. Information Theory and Practice, 2020. [2020-05-26]. <http://kns.cnki.net/kcms/detail/11.1762.g3.20200217.1538.002.html>.

[56] Liu Wei, Ye Ying. Discussion on the technical system and theoretical structure of digital humanities [J]. Journal of Library Science in China, 2017, 43(5): 32-41.

[57] Xia Cuijuan. Research on the open application of Chinese historical geographic data in library digital humanities projects [J]. Journal of Library Science in China, 2017, 43(2): 40-53.

**Author Contributions:**

Deng Jun: Proposed the overall research 思路 and framework;

Wang Ruan: Wrote and revised the paper;

Zhong Chuyi: Organized data;

Zhang Zishu: Collected data;

Song Xueyan: Collected data.

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

*Source: ChinaXiv — Machine translation. Verify with original.*