

Utilizing Digital Technology to promote the transformation and upgrading of the utilization of ancient literature in the new era based on the ancient literature digitization project of Southwest Minzu University Library

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Abstract. Based on the ancient literature digitization project of Southwest Minzu University Library, the paper summarizes the current status of the digital utilization of ancient literature from four aspects: staff allocation, basic requirements, environment construction and digital service platform, and promotes the future planning in the digital utilization of ancient literature from six aspects: the construction of digitization staff team, the environment construction of standardization digitization of ancient literature, the intelligent transformation of digitization service platform, strengthening publicity and promotion, strengthening cooperation and exchange and setting up special funds for digitization of ancient literature.

1. Introduction

Ancient literature are important because they contain the ancient culture and technology, but they're very vulnerable[1]. Therefore, researchers have done a lot of research and practice on the protection of ancient literature, especially in the field of digitization[2-7]. On April 11th 2022, the General Office of the CPC Central Committee and the General Office of the State Council proposed "promoting the digitization of ancient literature and accelerating the transformation and upgrading of the utilization of ancient literature" in the Opinions on Promoting the Work of Ancient Books in the New Era[8]. On 25th April 2022, Xi Jinping general secretary inspected and investigated in Renmin University of China, to stress "Utilizing modern scientific and technological means to strengthen the protection, restoration and comprehensive utilization of ancient literature"[9].

The report of the 20th National Congress of the Communist Party of China (CPC) pointed out "strengthening the protection of cultural relics and cultural heritage" and "Inherit Chinese excellent traditional culture". The digitization of ancient literature is not only an important mean to protect ancient literature, but also one of the ways to transform and upgrade the digital utilization of ancient literature. Based on the ancient literature digitization project of Southwest Minzu University Library, this paper briefly introduces the practical experience and future prospect of digitization of ancient literature.

2. Present status of digitization of ancient literature in Southwest Minzu University Library

Southwest Minzu University Library (hereinafter referred to as "our library") was founded in 1951. It is one of the first key organizations for ancient book protection in Sichuan Province, the library holds 26,000 ancient books [10,11]. For protecting these ancient literature effectively, our library has been carrying out the related work of ancient book protection since the 1950s, and has obtained the certain achievement[12]. With the advancement of the protection of ancient literature and the continuous development of digital technology, how to utilize digital technology to promote the transformation and upgrading of the protection and utilization of ancient literature has become one of the important topics in the field of ancient literature. The digitization project of ancient literature in our library was officially launched in 2021 [13] and has been continuing. The digitization of ancient literature has effectively solved the contradiction between the protection and utilization of the original ancient literature, which not only provides readers with the service of ancient literature that break through the time and space constraints[13], but also improves the utilization efficiency of the ancient literature.

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2.1. Staff allocation

Our library has always attached great importance to the related work of ancient literature, including the digitization of ancient literature. Therefore, when carrying out the digitization project of ancient literature, our library has established a collaborative team of the digitization project of ancient literature that is led by the leadership of the library. The team includes the department of ancient literature that is mainly responsible for the project management, the department of technical service that is mainly responsible for the technical support, and the digitization service company that is mainly responsible for the digital operated work. In order to ensure that the ancient literature digitization project can be completed the stated goals and tasks with guarantee quality and quantity on time. Our library assigned a special person to communicate, supervise and provide technical support for the digitization project of ancient literature, at the time the ancient literature digitization service company assigned a special person to be responsible for the rectification and optimization of feedback problems.

2.2. Basic requirements

Ancient literature is fragile and non-renewable treasures. So, before carrying out the related work of the digitization of ancient literature, it is necessary to first clarify which ancient literature should be digitized first, and then formulate corresponding protection schemes according to the digitized ancient literature, including the outbound and warehousing process of the digitization of ancient literature and the required handover procedures, the protection measures of ancient literature during the handover process, and the protection measures and precautions during the digitization of ancient literature. Then the related staff and working environment of the digitization of ancient literature that include warehousing staff, handover staff, digital operation staff, supervisory staff, technical support staff, basic requirements of working environment and equipment, working environment management staff, digital equipment handover and management staff, etc. And finally, according to the relevant requirements and standards of the national ancient literature digitization and the specific situation of the digitization of ancient literature in our library, we have formulated the basic requirements for the digitization of ancient literature in our library, including the preservation format, the long-term preservation mechanism of digitized resources, the display requirements and utilization ways of digitized resources of ancient literature. Meanwhile, we have also formulated some basic guidelines that include Staff Discipline Guidelines, Equipment Management System, and secrecy System, in order to ensure the completion of the digitization work of ancient literature in the sight of nondestructive protection and lay a solid foundation for the efficient utilization of the digitization of ancient literature.

2.3. Environment construction

In order to ensure that the digitization process of ancient literature will not damage the ancient literature and the safety of the ancient literature after they are out of the library collection, our library has specially set aside a separate working room that has equipped with real-time video monitoring equipment that can be networked, so that the supervision staff of our library can know the progress of the digitization of ancient literature and the safety of the ancient literature at any time and anywhere. Secondly, it is equipped with A2 format non-contact scanners and the computer and storage related equipment needed for trimming and integrating digital resources of ancient literature. Finally, according to the actual needs of the digitization of ancient literature, it is equipped with other equipment and facilities, such as lining paper, paper cutter, ruler, workbench and so on, to create a good working environment for the digitization of ancient literature, so as to ensure that the digitization of ancient literature can be carried out in a relatively independent and safe environment.

2.4. Digital service platform

The digitization of ancient literature is not only to protect the collection of ancient literature, but also to strengthen the comprehensive utilization of ancient literature through modern scientific and technological means, in order to provide a strong digital resource guarantee for the discipline construction, talents training and scientific research of our university. Therefore, on the basis of the digitization of ancient literature, we have built a set of digital service platform for the storage, display, publicity, promotion, retrieval and utilization of digital ancient literature. The service platform includes four parts: recommendation of our library, introduction of ancient literature collection, academic trends of ancient literature and digital resources of ancient literature. The "Recommendation of our library" mainly recommends and introduces some ancient literature resources of our library. The "Introduction of ancient literature collection" is mainly a brief introduction about ancient literature resources of our library. The "Academic trends of ancient literature" is mainly to push some academic information related to ancient literature. The "Digital Resources of Ancient literature" stores, displays and retrieves the digitized ancient literature according to the five categories of Classics category (Jingbu), Historiography category (Shibu), "Masters and Philosophers" (Zibu), belles-lettres (Jibu) and Lei cong bu. It not only provides a brief search based on ' title ', ' responsible person ' and ' all ', but also provides an advanced search based on ' characteristic library ', ' type (including pictures, documents, audio, video, etc.) ' and ' search terms (including title, author, description, keyword, etc.) ', so as to help readers understand and use the digitized resources of ancient literature easily and improve the utilization efficiency of the digitized resources of ancient literature.

3. Prospect of digitization of ancient literature

3.1. Optimizing the team construction and improving the overall strength of digitization of ancient literature

As mentioned above, at present, the digitization work of ancient literature in our library is mainly carried out by specialized digital service institutions, and the digital talents of ancient literature are very scarce. As the country pays more and more attention to the digitization of ancient literature, our library should seize this development opportunity and appropriately enrich our library's digital talent team of ancient literature through the introduction of talents or the cultivation of existing ancient literature staff, which not only strengthens the talent team of ancient literature, but also improves the overall level of the professional team of ancient literature digitization.

3.2. Improving the digitization environment of ancient literature and accelerating the construction of standard digitization environment of ancient literature

Although our library has done a lot of work in the digital environment of ancient literature, there are still some problems that need to be optimized and improved, such as the lack of corresponding environment for the ancient literature digitization workshop, the gradual aging of the storage equipment of ancient literature digitization resources, and the low performance of the digital resource processing equipment of ancient literature. Therefore, in the future, we should take advantage of the development opportunity of the digitization of ancient literature to speed up the standardized construction of the digital environment of ancient literature, so as to ensure that the ancient literature can also be protected in the process of digitization as well as in the storage of ancient literature, thus accelerating the digitization of ancient literature and improving the strength and influence of our library in the digitization of ancient literature.

3.3. Promoting the intelligent transformation of the Digital Service Platform of ancient literature and improving the level of intelligent services

Although our library has built a set of digital service platform for readers to utilize the digital resources of ancient literature, the digital service platform can only realize some simple functions such as resource introduction, retrieval, academic notification and display. However, there are still some shortcomings in the utilization of digital resources of ancient literature, such as the inability to dynamically identify the content of digital resources of ancient literature, the inability to interact with digital resources of ancient literature, and the inability to retrieve the content level of digital resources of ancient literature. Therefore, in the future, we should gradually promote the construction of intelligent digital service platform of ancient literature based on the existing digital

service platform of ancient literature. So as to reduce the difficulty of readers reading the digital resources of ancient literature, improve the efficiency of readers finding the required knowledge from the digital resources of ancient literature, improve the level of digital services of ancient literature, and promote the in-depth development of the utilization of digital resources of ancient literature.

3.4. Strengthening publicity to improving the utilization efficiency of digital resources of ancient literature

The ultimate goal of the digitization of ancient literature is not only to better protect ancient literature, but also to improve the utilization efficiency of ancient literature on the premise of effective protection, so as to push the ancient literature out of the 'deep boudoir', make the Chinese civilization within reach, and let the Chinese Context continues to carry forward in the inheritance. Therefore, on the basis of carrying out the digitization of ancient literature and constructing the digital service platform of ancient literature, we should increase the publicity and promotion of the digital resources of our library by holding exhibitions, on-site experience or lectures related to the digitization of ancient literature and using library portals, new media, posters and reading promotion, so as to improve the understanding of the digital resources of ancient literature and enhance the enthusiasm of readers to use the digital resources of ancient literature. So as to further improve the utilization efficiency and application value of the digital resources of ancient literature, and make the digital resources of ancient literature contribute new intellectual support to the development of social in the new era.

3.5. Strengthening exchanges and cooperation with ancient literature digitization institutions

At present, in addition to the work related to the digitization of ancient literature in our library, other institutions that collect ancient literature have also carried out the work related to the digitization of ancient literature. In order to expand the influence of the digital resources of ancient literature, enrich the collection of digital resources of ancient literature, and share the practical experience of the digitization of ancient literature, our library should actively carry out exchanges and cooperation with these ancient literature collection institutions in the digitization of ancient literature, so as to share the practical experience of the digitization of ancient literature, and learn from the excellent practical experience of the digitization of ancient literature, so as to promote greater progress and deeper and wider exchanges and cooperation in the digitization of ancient literature, so that all parties can avoid detours in the digitization of ancient literature and reduce the training cost of digital talents of ancient literature.

3.6. Establishment of special funds for digitization of ancient literature

The digitization of ancient literature is a long-term and important work for the protection and utilization of ancient literature. The digitization of ancient literature, the storage of digital ancient literature resources, the update and maintenance of ancient literature digital resource service platform, the cultivation of talents and the update of related digital equipment all need long-term and continuous investment. On the basis of the existing digitization of ancient literature, our library should actively discover the convenience, value and shortcomings brought by the digitization of ancient literature, and give timely feedback to the relevant leaders or departments in order to strive for long-term investment of special funds. In addition, we can further expand the funds for the digitization of ancient literature by applying for various funding projects, so as to further improve the investment in the digitization of ancient literature, broaden the sources of funds for the digitization of ancient literature, and enhance the overall strength of the digitization of ancient literature.

4. Summary

The foregoing summarizes the practice of the digitization of ancient literature in Southwest Minzu University Library from four aspects: staff allocation, basic requirements, environment construction and digital service platform. These practical experiences are not only limited to the digitization of ancient literature in our library, but also a general summary of the characteristics of the digitization of ancient literature, hoping to enhance the further understanding and thinking of the digitization of ancient literature by the relevant institutions and industries of the digitization of ancient literature. Based on the current situation of the digitization of ancient literature in our library, the paper also puts forward to the future digitization of ancient literature from six aspects: optimizing the team construction and improving the overall strength of digitization of ancient literature, improving the digitization environment of ancient literature and accelerating the construction of standard digitization environment of ancient literature, promoting the intelligent transformation of the digital service platform of ancient literature and improving the level of intelligent services, strengthening publicity to improving the utilization efficiency of digital resources of ancient literature, strengthening exchanges and cooperation with ancient literature digitization institutions, and establishment of special funds for digitization of ancient literature, in order to do better the work of the digitization of ancient literature and the Chinese cultural inheritance in the new era.

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