

Resurrection and Heritage: Research on the Application of AIGC in the Preservation of Ancient Books in Archives

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Abstract. This study outlines the methods for protecting ancient books in archives, elaborates on the basic principles and key technologies involved in generative artificial intelligence, and explores the specific applications of generative artificial intelligence in the protection of ancient books in archives from three aspects: primary protection, regenerative protection, and inheritance protection. Taking the generation of ancient book illustrations as an example, the implementation process of using generative artificial intelligence to carry out ancient book protection in archives is analyzed. Based on five aspects: formulating and improving policies and regulations, constructing cooperation mechanisms and approaches, ensuring data integrity and security, strengthening technical support and innovation, and establishing evaluation and feedback mechanisms, a strategy for the protection of ancient books in archives based on generative artificial intelligence is proposed.

Keywords: generative artificial intelligence; Protection of ancient books; archives building

1. Introduction

As carriers of the long history and splendid culture of the Chinese nation, ancient books carry rich historical information and cultural value. These precious literature materials not only witness the development process of Chinese civilization, but also contain profound cultural heritage and wisdom. However, over time, ancient books are facing multiple threats such as natural aging, human damage, and catastrophic events, all of which are constantly eroding these valuable cultural heritages. Therefore, it is urgent to strengthen the protection of ancient books. We must take effective measures to ensure

that these priceless treasures can be properly preserved and passed down to future generations.

In recent years, with the rapid development of technology, especially the rise of generative artificial intelligence technology, remarkable achievements have been made in fields such as image processing and natural language processing [1]. By learning potential patterns and patterns in large amounts of data, they generate highly authentic and creative new content such as text, images, audio, and video, providing new ideas and means for the protection of ancient books. The use of handwriting restoration and enhancement technology can repair blurry characters in ancient books and improve their readability; The use of illustration and background generation techniques can reproduce the original appearance of ancient books and enhance readers' reading experience; The use of content translation and annotation techniques can break down language barriers and allow more people to appreciate the charm of ancient books [2]. Archives are important institutions for collecting ancient books in China. This study focuses on analyzing the specific application of AIGC in the protection of ancient books in archives, exploring the implementation process and strategies of using AIGC to carry out ancient book protection in archives, in order to provide reference and guidance for improving the level of ancient book protection in archives.

2 Methods for Protecting Ancient Books in Archives

2.1 Methods and limitations of traditional preservation of ancient books in archives

As witnesses of history and inheritors of culture, the preservation status of ancient books directly affects people's understanding of past history and culture. With the passage of time, many ancient books are facing severe challenges from physical and chemical damage. Physical damage mainly manifests as paper aging, wear and tear, coupled with the invasion of unexpected events such as floods and fires, seriously weakening the integrity and even reading value of ancient books; Chemical damage mainly manifests as paper acidification, paper mold, ink fading, etc. caused by

environmental factors such as temperature, humidity, and light. It not only affects the appearance of ancient books, but also causes permanent loss of their content. To cope with these damages, the archives mainly adopted two traditional methods of preserving ancient books: physical restoration and chemical treatment. Physical restoration refers to the manual or mechanical repair and reinforcement of ancient texts to restore their original appearance; Chemical treatment refers to the use of chemical reagents to remove acid, dirt, and mold from ancient books in order to improve their preservation status, delay the aging process of ancient books to a certain extent, and enhance their durability. In addition, auxiliary protective measures such as establishing a constant temperature and humidity environmental control system and using ultraviolet disinfection equipment have also been used for the protection of ancient books in archives.

Although traditional methods of protecting ancient books to some extent prevent further damage, they also have many limitations. Firstly, traditional methods for preserving ancient books rely on manual operation, empirical judgment, and restoration materials, which not only have low efficiency but are also susceptible to human factors such as limited technical skills or lack of experience among ancient book restorers in archives, resulting in unsatisfactory restoration results. Secondly, traditional methods for protecting ancient books require a significant investment of manpower, material resources, and financial resources. However, due to the large number and widespread distribution of ancient books, archives are unable to effectively respond to the large-scale demand for ancient book protection. Finally, traditional methods for protecting ancient books have limited ability to cope with damage caused by new types of ancient books, such as environmental pollution, microbial erosion, and other factors. Traditional methods for protecting ancient books are often inadequate [3]. Therefore, archives need to constantly seek new methods and technologies to compensate for the shortcomings of traditional methods of protecting ancient books.

2.2 Application and Challenges of Digital Technology in the Protection of Ancient Books in Archives

With the development of information technology, digital and intelligent technologies have been widely applied and made certain progress in the field of ancient book protection. Digital technology converts ancient books into digital information and stores and transmits it, achieving permanent preservation and widespread sharing of ancient books. If image processing technology is used to digitize and clean ancient books, it significantly enhances their readability; The use of virtual reality technology to digitally restore the original appearance of ancient books provides readers with an immersive reading experience. The application of digital technology not only improves the efficiency and quality of the protection of ancient books in archives, but also provides new means and approaches for the research and inheritance of ancient books. Intelligent technology has also shown broad application prospects in the field of ancient book preservation. Applying artificial intelligence algorithms to the automatic recognition and classification of ancient books; The application of machine learning technology to predict the aging trend of ancient books and assist in formulating corresponding protection measures; Deep learning technology is applied to ancient text recognition and semantic understanding. The application of intelligent technology has improved the automation and intelligence level of the protection of ancient books in archives.

However, the application of digital and intelligent technologies in the protection of ancient books in archives also faces challenges. On the one hand, due to the decentralization and complexity of ancient books, the difficulty of data acquisition and processing, and the lack of unified technical standards and norms, it is difficult to share and operate the digital achievements of ancient books in archives; On the other hand, the application of intelligent technology in the protection of ancient books carries the risk of regulatory deficiencies, making it difficult for archives to effectively safeguard the copyright security of ancient books. Despite facing numerous challenges, digital and intelligent technologies still have enormous potential for development in the field of ancient book preservation [4]. With the advancement and innovation of technology,

the above problems will gradually be solved, injecting new impetus into the development of ancient book protection.

3. The basic principles and key technologies involved in AIGC

3.1 Basic Principles of AIGC

AIGC uses machine learning algorithms such as deep learning to deeply understand the potential distribution patterns of data, and then generates new data similar to the training data. Its learning process can be summarized into three steps: 1.Data learning. The model learns from a large amount of training data to understand the distribution patterns and underlying structures of the data. This step typically utilizes neural networks, especially deep neural networks, to automatically extract data features. 2.Potential spatial mapping. The model learns from data and maps high-dimensional raw data to a low dimensional latent space. In the latent space, data points of similar categories will gather together, while data points of different categories will be separated. 3.Data generation. Once the model learns and understands the potential distribution of data, it can randomly sample from the latent space, convert the sampling points to the original data space through a decoder, and generate new data.

3.2 Key Technologies Involved in AIGC

1) Deep learning algorithms. Deep learning algorithms are an important foundation of AIGC. It can simulate human brain information processing by constructing deep neural networks. In the protection of ancient books, deep learning algorithms can be used to extract feature information such as text and images from ancient books, which can be used in the data generation process of AIGC learning. Common deep learning algorithms include convolutional neural networks, recurrent neural networks, and so on.

2) Generative Adversarial Network(GAN). GAN is a special type of deep learning model consisting of a generator and a discriminator. The task of the generator is to

generate new data samples; The task of a discriminator is to determine whether the input data sample is real or generated by a generator. Through adversarial learning during the training process, the generator and discriminator continuously improve their performance, ultimately generating highly authentic data samples. GAN can be used for tasks such as handwriting restoration and enhancement, illustration and background generation in ancient book preservation.

3) Variational AutoEncoder(VAE). VAE is a deep generative model that achieves data generation by constructing encoders and decoders. The encoder compresses the input data into a low dimensional representation of latent variables; The decoder reconstructs the original data from the latent variable representation. During the training process, VAE optimizes model parameters by minimizing reconstruction errors and Kullback Leibler Divergence of latent variables. In the protection of ancient books, VAE can be used for tasks such as text conversion and intelligent organization of ancient books.

4) Natural Language Processing (NLP). NLP provides important technical support for the application of AIGC in ancient book preservation, such as the use of Transformer models to achieve automatic translation, annotation, collation, knowledge graph construction, etc. of ancient book content; Machine translation technology can be used to translate classical Chinese from ancient books into modern Chinese; The use of named entity recognition technology can automatically identify and annotate entity information such as names and place names in ancient books; The use of syntactic analysis techniques can analyze sentence structures, grammatical relationships, and other aspects in ancient books. The application of NLP technology helps to improve the readability and comprehensibility of ancient books, thereby promoting their revitalization and utilization.

4. The specific application of AIGC in the protection of ancient books in archives

The protection of ancient books in archives mainly includes preservation of their originality, regeneration, and inheritance. This study explores the specific applications of AIGC in the protection of ancient books in the three types of archives mentioned above.

4.1 Application of original preservation of ancient books

The preservation of the original form of ancient books refers to the protection of the cultural relics themselves, with the main purpose of preserving the original form of ancient books for a long time [5]. The application of AIGC in the original preservation of ancient books in archives mainly involves three aspects:

1) Handwriting restoration and enhancement. Ancient books may become illegible and difficult to recognize due to natural aging, ink fading, paper damage, and other factors during long-term preservation. AIGC can perform deep learning on ancient book images to recognize and restore the original handwriting information; Enhance the handwriting to improve its clarity and recognition, providing convenience for subsequent sorting and research of ancient books. In the process of achieving handwriting restoration and enhancement, GAN can be used to learn and simulate the original appearance of ancient books. Through continuous adversarial training between the generator and discriminator, the generated results are gradually optimized, making the restored handwriting more realistic and natural.

2) Ancient book illustrations and background generation. Due to factors such as age and improper preservation, many illustrations and backgrounds in ancient books have been severely damaged or missing. AIGC can learn and generate images that are similar to the original illustration or background based on existing image information. In specific applications, deep learning algorithms can be used to extract features and transfer styles from ancient book images. By learning a large number of illustrations and background features from different styles or periods, highly realistic and artistic

images that conform to historical background and literature content can be generated. Image synthesis techniques can also be used to add appropriate backgrounds to ancient books, making them more vivid and visual.

3) Assist in the identification and version proofreading of ancient books. The identification and version verification of ancient books involve the analysis and judgment of the authenticity, age, value, and version of ancient books. Due to limited expert resources and subjective differences in judgment and analysis, traditional manual identification and verification methods are inefficient and difficult to ensure the accuracy of results. AIGC can utilize NLP technology and machine learning algorithms to automatically extract effective features of identified or annotated ancient books by learning a large amount of ancient book sample data, and perform effective comparison, classification, and recognition to assist experts in quickly and accurately identifying and evaluating the differences and connections between ancient books or recognized versions of ancient books.

4.2 Application of Regenerative Protection of Ancient Books

The regenerative protection of ancient books refers to the use of modern technology or means to copy or transfer the content of ancient books from the original carrier to a new carrier, in order to protect the content of ancient books. The application of AIGC in the regenerative protection of ancient books in archives mainly involves three aspects:

1) Digital preservation and dissemination. AIGC plays an important role in the digital preservation and dissemination of ancient books. By utilizing digital technologies such as high-resolution scanning and optical character recognition, ancient books can be converted into digital formats, facilitating the storage, transmission, and sharing of their content; The use of image enhancement technology can denoise and contrast enhance digital ancient books, improve their image quality, facilitate online browsing and research, meet the needs of different readers, and promote the inheritance and development of cultural heritage.

2) Text conversion and intelligent organization. There are language differences, text errors, and inconsistent formats in ancient texts, which result in low efficiency and easy

occurrence of errors in the conversion and organization of traditional ancient texts. AIGC can rely on NLP technology and machine learning algorithms to automatically convert and intelligently organize ancient texts, thereby improving work efficiency and quality. If optical character recognition technology can be used for text recognition of ancient book images, the image data can be converted into text information, providing convenience for subsequent processing and analysis; Using text correction technology to automatically correct the recognition results, in order to reduce the workload of manual proofreading and improve the accuracy of proofreading.

3) The construction of digital platforms. With the continuous development of digital technology, it has become a reality to build a digital platform for ancient books that integrates storage, management, retrieval, and display functions. This platform can integrate various AIGC technologies and tools, providing users with a unified and convenient working environment. If NLP technology and machine learning algorithms can be used to automatically classify and label digital ancient books, improving their retrievability and usability; Utilizing visualization, virtual reality, and other technologies to create an immersive reading environment for readers, enabling them to gain a deeper understanding and experience the charm and value of ancient books.

4.3 Application of Inheritance and Protection of Ancient Books

The inheritance protection of ancient books refers to the creative transformation and innovative development of ancient books, so that the cultural essence in ancient books can be inherited and developed. The application of AIGC in the preservation of ancient books in archives mainly involves two aspects:

Firstly, content translation and annotation. There are significant differences between the language in ancient books and modern Chinese, which poses great difficulties for readers to read and understand. AIGC can use NLP technology for deep learning and understanding of language in ancient texts, transforming them into modern Chinese or other language forms, and adding necessary annotations and explanations. In specific applications, neural network-based machine translation models and pre trained language models can be used to effectively handle complex sentence structures and rare

vocabulary in ancient books, improve the accuracy and fluency of translation and annotation, and optimize and improve the translation and annotation results by combining expert knowledge, corpus and other resources to enhance their application effect in the preservation of ancient book heritage.

Secondly, knowledge graph construction. Ancient books contain rich information and knowledge, but their decentralization and complexity make it difficult to effectively organize and utilize this information and knowledge. AIGC can integrate scattered information and knowledge into a structured knowledge graph based on information extraction and knowledge graph construction techniques, which not only facilitates readers' retrieval and query of ancient book content, but also provides important support for subsequent research and development of ancient books. In specific applications, techniques such as named entity recognition, relationship extraction, and event extraction can be used to process and analyze ancient texts, automatically identifying and extracting entities, attributes, events, and other information from the text and integrating them into a knowledge graph to assist readers in understanding and recognizing the content of ancient texts.

5. The implementation process of using AIGC to carry out ancient book protection in archives

Based on the basic principles of AIGC and its specific application in the protection of ancient books in archives, this study takes the generation of ancient book illustrations as an example to analyze the implementation process of using AIGC to carry out ancient book protection in archives, in order to ensure that AIGC empowers the protection of ancient books in archives more scientifically and efficiently, and achieves innovative development.

5.1 Project initiation and team building

When initiating the application of AIGC in ancient book preservation projects, the archives first need to clarify key elements such as project objectives, expected results,

timeline, and budget. Secondly, according to the project requirements, lead the formation of a multidisciplinary team covering experts in ancient literature, artificial intelligence researchers, data scientists, software engineers, project managers, etc., to ensure that team members have a clear understanding of the project goals and scope, and allocate tasks based on their professional backgrounds and skills, in order to facilitate the smooth implementation of the project [6]. Among them, experts in ancient books are responsible for providing professional knowledge guidance, artificial intelligence researchers are responsible for algorithm design and optimization, data scientists are responsible for data processing and analysis, software engineers are responsible for designing technical tools and system platforms, and project managers are responsible for ensuring the smooth implementation of the project. For the generation of illustrations in ancient books, archives also need to select suitable ancient literature for illustration generation, and determine the types of ancient books and illustration styles involved. In addition to the aforementioned team members, the participation of graphic designers or graphic artists is also required to provide necessary adjustments and optimization suggestions for the generated ancient book illustrations.

5.2 Data Collection and Preprocessing

Data is the cornerstone of AIGC, and its quality and quantity directly affect the final generation effect. The archives need to extensively collect data related to ancient books, including images, texts, metadata, etc., based on project requirements. Data scientists perform preprocessing operations such as cleaning, labeling, and formatting on the collected raw data to improve its quality and usability, ensuring the efficiency and accuracy of subsequent model training. For the generation of ancient book illustrations, firstly, the archives should organize relevant ancient book experts to organize the content of ancient book literature used for illustration generation, including textual descriptions, historical backgrounds, etc., and accurately and completely extract key information such as characters, events, scenes, etc. from them to avoid missing important information. Secondly, around the key information organized, the archives

should organize data scientists to collect a large amount of relevant image data information from different channels such as ancient book illustrations, historical paintings, and modern artworks. In the process of collecting image information, attention should be paid to its diversity and representativeness, covering all key information in ancient books as much as possible, while also paying attention to copyright issues to ensure that image data collection is legal and compliant. Finally, data scientists need to preprocess the collected image data to provide a solid foundation for subsequent model training and illustration generation. In the preprocessing process, which involves image denoising, scaling, color correction, format conversion, and other steps, professional image processing tools and techniques should be used to improve the quality of data processing. When annotating image data, special attention should be paid to the feature information such as lines, colors, and composition of the image, so that the training data can fully reflect the style and characteristics of ancient books, and ensure that the model can correctly learn and capture the inherent rules and features of ancient book illustrations.

5.3 Model Selection and Training

According to the specific needs and application scenarios of ancient book protection, archives should choose appropriate AIGC models for training. For handwriting restoration and enhancement tasks, deep learning algorithms or GANs can be chosen for model training; For the task of constructing a knowledge graph of ancient books, entity recognition technology and relationship extraction technology can be used to train models and construct a knowledge graph of ancient books. After selecting the model, the preprocessed data is used for training and optimization. By continuously adjusting parameters and optimizing algorithms, the performance and generalization ability of the model are improved to achieve the best generation effect. When selecting the AIGC model for the generation of ancient book illustrations, archives should fully consider the characteristics of illustrations, model complexity, technical resource requirements, and the quality and efficiency of generated illustrations. Usually, deep neural network models with significant advantages in image generation are chosen to

train the model using preprocessed image data and ancient book content information. During the training process, appropriate parameters such as learning rate and iteration times need to be set to optimize the model performance. At the same time, transfer learning, regularization and other methods are used to improve the generalization ability and stability of the model, enabling it to learn and generate illustrations that are consistent with the content of ancient books.

5.4 Application scenario selection and project implementation

After the model training is completed, the archive needs to apply it to specific ancient book preservation scenarios. Suitable application scenarios should be selected for project implementation based on the actual needs and resource situation of the project, such as starting from application scenarios with urgent requirements and good data foundation, and gradually expanding to other scenarios. During the project implementation process, it is necessary to closely monitor the effectiveness of the model and adjust and optimize it according to the actual situation. At the same time, attention should be paid to working closely with experts in ancient books to ensure timely resolution of any problems that arise relying on AIGC. For the generation of illustrations in ancient books, archives should first select application scenarios based on the goals of ancient book protection, such as digital display and restoration assistance, and fully consider the actual needs and usage habits of the audience to improve the usability and practicality of the model. Secondly, organize software engineers to develop an ancient book illustration generation system and integrate it into the archive's ancient book digitization platform, achieving automatic generation and display of ancient book illustrations. In the development process of the ancient book illustration generation system, it is necessary to ensure the stability and security of the system, prevent data leakage, and protect reader privacy. After the development of the ancient book illustration generation system is completed, it is necessary to conduct sufficient testing and optimization to ensure that the quality of the generated ancient book illustrations meets the expected requirements.

5.5 Project Evaluation and Feedback

The archives should establish a sound evaluation mechanism during the project implementation process, regularly evaluate each link, and ensure the smooth progress of the project and the achievement of goals. The evaluation content should include data quality, model performance, application scenario effects, etc. At the same time, it is necessary to establish a feedback mechanism, collect readers' opinions and suggestions, and adjust and optimize the project in a timely manner to meet the constantly changing needs of readers. The continuous improvement and enhancement of the project through evaluation and feedback can promote the continuous development and improvement of AIGC's application in the protection of ancient books in archives. For the generation of ancient book illustrations, the archives need to organize experts in ancient books, graphic designers or artists, readers, etc. to evaluate and provide feedback on the ancient book illustrations generated by the model. On the one hand, evaluating the quality of ancient book illustrations, including style consistency, content accuracy, and detail expression, can be done through expert review, comparative experiments, user surveys, and other methods to ensure the objectivity and accuracy of the evaluation results; On the other hand, collecting reader feedback can be achieved through methods such as questionnaire surveys, interviews, and online comments to understand readers' satisfaction and improvement suggestions for the generated ancient book illustrations. The model can be iteratively optimized in a timely manner to improve the quality and efficiency of ancient book illustration generation.

6. AIGC based strategies for the protection of ancient books in archives

6.1 Develop and improve policies and regulations

The formulation and improvement of policies and regulations are the guarantee for the smooth implementation of the ancient book protection project, enabling archives to legally and compliantly use AIGC to carry out ancient book protection work. The

government should formulate relevant policies and regulations to legally define the application of AIGC in the protection of ancient books in archives, clarify rights and obligations, and prevent technological abuse and infringement. At the same time, clarify the scope, standards, and requirements for the archives to use AIGC for the protection of ancient books, and standardize their data collection, use, and dissemination. The archives themselves should also establish relevant rules and regulations, clarify the specific workflow, data management, and usage norms of AIGC applied to the protection of ancient books, ensure that all work is systematic, and establish a sound accountability system to ensure the effective implementation of policies and regulations. In addition, a dynamic adjustment mechanism needs to be established. Timely update and improve relevant policies and regulations based on the development, application changes, and potential risks of AIGC technology, to ensure the timeliness and applicability of archives utilizing AIGC for ancient book protection.

6.2 Establishing Cooperation Mechanisms and Approaches

The protection of ancient books involves participation and cooperation from multiple fields and departments. Therefore, establishing a sound cooperation mechanism and approach is an important guarantee for archives to use AIGC to carry out ancient book protection. Firstly, archives should establish close cooperation with ancient book collection institutions such as museums to jointly promote the preservation, regeneration, and inheritance of ancient books. Secondly, archives should collaborate with universities, research institutions, and other institutions to jointly conduct research, development, and application of ancient book preservation technologies. Through resource sharing and experience exchange, AIGC should promote innovative applications and development in the field of ancient book preservation. Finally, archives should actively seek support and participation from various parties such as the government, social organizations, and the public to create a good atmosphere for the whole society to participate in the protection of ancient books. The construction of cooperation mechanisms and channels in archives should focus on establishing long-term stable cooperative relationships and mutually beneficial benefit distribution

mechanisms, ensuring that all parties participate and benefit together, and promoting the sustainable development of ancient book protection.

6.3 Ensure data integrity and security

In the process of using AIGC to protect ancient books in archives, the integrity and security of data are particularly important, and their quality and results directly affect the performance and application effectiveness of the model. Firstly, archives should take effective measures to establish a comprehensive digital management system for ancient books, achieving unified management and maintenance of data collection, organization, storage, and backup, ensuring data integrity and traceability, and comprehensively reflecting the original appearance and value of ancient books. Secondly, it is necessary to strengthen the security of ancient book data, establish data backup and recovery mechanisms, prevent data loss and damage, and adopt measures such as encryption and access control to prevent data leakage and illegal acquisition. Finally, in response to privacy protection issues, archives should establish strict regulations for the use and management of ancient book data, clarify the permissions and responsibilities for data use, and ensure data security and controllability. Such as desensitizing or restricting access to sensitive information related to personal privacy, establishing approval and supervision mechanisms for data sharing and exchange, etc.

6.4 Strengthening Technical Support and Innovation

The application of AIGC in the protection of ancient books in archives requires strong technical support and continuous innovation drive. Archives should actively seek policy and financial support, increase investment in AIGC enabled research and development of ancient book protection technologies, and cooperate with enterprises, research institutions, and other organizations to carry out technological innovation and breakthroughs. At the same time, establish mechanisms for technological exchange and collaborative innovation to promote the integration and coordinated development of technology between ancient book preservation and different fields. In terms of technical support, archives should establish a professional technical support team to

provide comprehensive technical services for the protection of ancient books. Through organizing training courses, academic seminars, and other forms of sharing experiences and exchanging achievements, the team can help librarians better understand, master, and apply relevant technologies. In terms of collaborative innovation, archives should enhance the digitalization and intelligence level of ancient book protection through a combination of independent innovation and the introduction of external technologies, and actively adopt emerging technologies and methods to promote the innovative development of ancient book protection work.

6.5 Establish an evaluation and feedback mechanism

To ensure the effectiveness of AIGC in the protection of ancient books in archives, the archives need to establish a sound evaluation and feedback mechanism, regularly evaluate and collect opinions on various aspects of project implementation, and adjust and optimize the specific implementation process of AIGC in the protection of ancient books in archives in a timely manner based on the evaluation and feedback results. Archives should establish clear evaluation criteria and standards, including the integrity and security of ancient book data, the effectiveness of AIGC model application scenarios, and the operation of cooperation mechanisms. A combination of quantitative and qualitative evaluation methods should be adopted, and third-party organizations should be introduced to carry out evaluation work to ensure the objectivity and accuracy of the evaluation results. At the same time, archives should establish smooth feedback channels, collect opinions and suggestions from readers and project team members in a timely manner through regular symposiums, questionnaire surveys, etc., continuously optimize work processes and technical solutions, and improve the quality and efficiency of ancient book protection work. By evaluating and providing feedback, the archives can achieve dynamic management and continuous optimization of the implementation process of using AIGC to carry out ancient book protection, promoting the continuous development of ancient book protection work.

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