

# Research on Digitization of Intangible Heritage in Gansu Section of Yellow River Basin

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**Abstract:** Digital is the intangible heritage protection and development trend. The paper introduces the intangible digital protection background and the status of the heritage protection in Gansu province in the Yellow River, combed the intangible mechanism and principle of digital, and did analysis of digital protection and utilization from two aspects such as record and dissemination of gansu province intangible. On the whole, the digitalization of intangible cultural heritage in Gansu province is still relatively weak. Based on this, how to organically integrate digital technology and intangible cultural heritage research to form a systematic digitalization research mechanism of intangible cultural heritage may be a problem to be paid attention to in the future .

**Keywords:** Digitization; Intangible Heritage; Gansu Section of Yellow River Basin

## 1. Introduction

In August 2021, the General Office of the CPC Central Committee and The General Office of the State Council jointly issued Opinions on Further Strengthening the Protection of Intangible Cultural Heritage, which are closely related to digitalization from the three main parts of protection, utilization and dissemination: It requires the use of digital technology to "strengthen the digital construction of archives", and comprehensively and systematically record the national intangible cultural heritage projects and their successors, so as to improve the intangible cultural heritage record system; Internet platforms should be used to expand promotion and sales channels of intangible cultural heritage-related products so as to promote rational use of intangible cultural heritage; It is required to adapt to the trend of in-depth media integration, enrich communication means, expand communication channels, and encourage all kinds of new media platforms to do a good job in related communication, so as to promote the widespread dissemination of intangible cultural heritage. It puts forward new requirements for the protection of intangible cultural heritage in the context of global cultural convergence and fast-paced social life. In today's society, many folk customs seem to be incompatible. In order to integrate into the society, people have to give up traditional beliefs and folk customs. Folk customs are dying out faster than we can imagine.

By December 2020, Gansu province has 68 national and 493 provincial representative intangible cultural heritage projects. There are 68 national and 549 provincial representative inheritors. In Gansu province, which is relatively backward in economic development, there are many traditional folk customs which have not been assimilated, so they are more precious. It is the best and effective way to protect intangible heritage through digital path. Under the situation, how to digitize the Intangible Cultural Heritage of Gansu Section of Yellow River Basin is a problem that need to be solved.

## 2. The Definition and Mechanism of Intangible Cultural Heritage Digitization

Since 1972, when the United Nations Educational, Scientific and Cultural Organization issued the Convention on the Protection of world Cultural and Natural Heritage, the study of intangible cultural heritage has emerged. In Terms of classification in China, there are ten methods, five methods and three methods. According to the characteristics of digital technology, the "three-point method" proposed by Professor Yuan Li and Gu Jun, namely dynamic art (oral tradition and performing art), static art (craftsmanship) and space-time art (festival ceremony), is more suitable for the digital work of intangible cultural heritage. It provides a direction for the selection of digital means, and emphasizes the time-space cultural characteristics of some intangible cultural heritage forms. Such classification conforms to the characteristics of digital preservation and display.

In 2009, a definition of "cultural heritage" digital was given: "adopting digital collection, digital storage, digital processing, digital display, digital transmission and digital technology to transform cultural heritage, reproduce, recovery into digital form, can be Shared, renewable and interpreted in a new perspective, in a new way to save, to the new demand to use".

With the further development of digital technology, the definition of the digitalization of intangible cultural heritage in the academic circle is also developing: "The application of digital technology to the protection and inheritance of intangible cultural heritage, through digital photography, 3D technology, VR, AR, Internet of Things and other technical content, and the support of computers and networks, eventually form an overall digital system, and ultimately achieve the protection, inheritance and promotion of intangible cultural heritage." It can be seen that the implementation of the digitalization of intangible cultural heritage is based on the new digital technology, and the operation activities are gradually transformed into multi-level digital channels through the compilation of digital archives of intangible cultural heritage. That is, from the basic work of generating digital resources by means of scanning and transcriptions of text and pictures, preservation of video and audio data, to the manual restoration of the original appearance of intangible cultural heritage by using digital technologies such as modeling, digital images and graphics, animation, etc. The content of intangible cultural heritage should be disseminated through new network media to enhance the cultural value of intangible cultural heritage. In the past, the methods of text, images, audio and video recording have side effects such as fragmentation, image content of low accuracy and limited display. The new digital methods as 3 d scanning, 3 d printing, 3 d modeling technology are applied to the protection made previously restricted limitations to be improved. The protection and utilization of intangible cultural heritage are truly integrated with science technology.

### **3. Digital Strategy of Protection and utilization of Intangible Cultural Heritage of Gansu Province**

#### ***3.1. Intangible Cultural Heritage Digital Record System***

The current digital recording system of intangible cultural heritage is still based on basic digital technology. Digital storage of texts and pictures, especially audio and video, has been widely used in intangible cultural heritage records. First of all, basic digital tools are portable and easy to use. Most non-genetic inheritors are orally taught by heart. The death of inheritors makes it urgent to complete intangible heritage records. At the same time, basic digital tools can objectively restore the real state of intangible cultural heritage, basically meet the needs of digital records of intangible cultural heritage, and can also provide original data for later emerging technologies.

In recent years, with the rapid development of science and technology, the protection of intangible cultural heritage is also developing rapidly. Emerging digital technologies are gradually infiltrating into the digital construction of intangible cultural heritage, especially the application and development of 3D technology, virtual reality, augmented reality, motion capture and network technology, providing new technical methods for the digital recording of intangible cultural heritage. The application of new technology to intangible cultural heritage is a trend, but mostly in the trial stage.

Taking Gansu Folk Music Research Center as an example, it is committed to the protection and research of intangible cultural heritage in Gansu province and has established the first "Intangible cultural Heritage Research Hall" in northwestern universities. It has visited more than 40 counties and cities, and completed the construction of intangible cultural heritage (music) digital media resource libraries in 13 cities and prefectures, including Wuwei, Jiuquan, Zhangye, etc. However, the recording of these intangible cultural heritage data still adopts the basic digital methods based on audio and video data collection. At the same time, VR technology is also used to build digital exhibition halls for various Gansu music intangible cultural heritage projects. Through material collection, scene modeling and interaction design, a 3D digital exhibition hall with real user experience and close effect to the original appearance is constructed, as shown in figure 1.



Figure 1 Intangible Cultural Heritage Research Hall of Gansu Ethnic Music Research Center

### 3.2. Intangible Cultural Heritage Communication system

In China, it adopts the government-led intangible cultural heritage protection system, which can be divided into four levels: national, provincial, city and county level. Local governments are the main force in the system. Gansu Provincial Department of Culture and Tourism opened the wechat official account "Longshang Intangible Cultural Heritage" in February 2019. By October 2021, it has maintained the frequency of releasing 3-4 pieces of intangible cultural heritage related materials every working day, and has published 715 original works and reproduced more than 2,000 pieces. In the form of text, images, audio, video, etc, and set up the "Everyday Intangible" "Intangible Poem" "Intangible Smell," "Legend on Longshang" "Intangible video" "Masters On research the intangible" and other columns, consciously use digital technology for intangible spread, as in its introduction "it is a song to sing the restless" says: "Such a boom in the media today, the official account can be called a sharp tool for the dissemination, inheritance and protection of intangible cultural heritage". It has become a digital platform attracting high attention from cultural managers, intangible cultural heritage researchers, non-inheritors and enthusiasts in Gansu Province.

As the main body of the protection and utilization of intangible cultural heritage, the fusion Media Center set up by the government since the latter half of 2018 has been responsible for the dissemination of intangible cultural heritage as part of its duties. After more than two years of development, as of April 2021, Gansu province has formed a "new Gansu cloud" as the center, radiation to 17 district-level financial media centers, 69 county-level financial media centers. To intangible dissemination and melt media combined with good min county media center as an example, is more than 101 media integration of platform, including Min County Television Station, Min County Comprehensive Broadcasting (FM88.1), "the Voice of Min County" WeChat public number, video, "Min County Issued" the Headline Number, WeChat release number today, "Love Min County" the client, "Minxian Release" "Minxian Rong Media Center" Sina Weibo, "When belongs to Minxian" official Douyin, Kuaishou account; The information communication matrix is made up of third-party platforms such as Xinhua News Agency live Cloud, Xinhua News Agency client, CCTV Video, People's Number, Audio-Visual Gansu and New Gansu. According to incomplete statistics, nearly 500 pieces of information related to intangible cultural heritage have been released on the platforms of Minxian Rong Media Center. The intangible Cultural Heritage will be implemented in a form popular with the masses, with pictures and pictures, or through micro-documentaries, specific people, events and objects, and typical pictures, characters and details will be restored, reproduced, condensed and enlarged. For example, when Minxian 2021 Intangible Cultural Heritage Propaganda Week Flower Art Festival is held, intangible cultural heritage culture is not only held offline, but also spread through the Internet in the form of live broadcast and micro-video recording. One of the videos is named "Min Xiaorong leads you to the scene

of the 21st Taomin Flower Singer Competition". When celebrating the 100th anniversary of the founding of the Party, it also invited Hua singer Pu Ciju to record a micro video: "Listen to the friends from afar, the well-off society is in front of you, listen to the villagers from afar, we will be thriving for thousands of years." Rong media closely integrates online and geographic communities, adapts to the trend of mass communication, and improves the quality of information supply. Therefore, it is an important way to improve the influence of intangible cultural heritage to expand the knowledge of regional intangible cultural heritage and promote related activities, and to make reasonable use of the advantages of new media.

#### 4. Problems Existing in Digitization

No matter it is the digitalization of basic tools or the digitalization of new technologies, especially the latter, the non-inheritors and the general public as the inheritance subject are difficult to participate in the government-led protection. Official institutions have collected and sorted out a large number of folk cultural heritage, and the public can search and browse the official list of intangible cultural heritage through the Internet. However, the sorting and arrangement of specific information is mostly completed by professionals, and it is often difficult for the general public to intervene. As a result, the cultural heritage of the underlying communities and people is left to be discovered, leaving out details of knowledge and unique skills. The situation accounts for the majority, therefore, Gansu intangible cultural heritage digitization is still weak.

#### 5. Conclusion

Based on a brief introduction to the background of intangible cultural heritage digitalization protection and the status of intangible cultural heritage protection in Gansu section of Yellow River Basin, this paper sorts out the mechanism and principle of intangible cultural heritage digitalization, and analyzes the digitalization protection and utilization of Intangible cultural heritage in Gansu Province from two aspects of recording and dissemination. On the whole, the digitalization of intangible cultural heritage in Gansu province is still relatively weak. Based on this, Arouse the active participation of the public, integrate digital technology and intangible cultural heritage research to form a systematic digitalization research mechanism organically may be a problem to be paid attention to in the future.

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