Research Article

A Study on the National History and Culture of Dai hulusi Music and Its Dissemination Pathway in the Digital Transition Period

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ARTICLE INFO	ABSTRACT
	Ethnic music has become an important part of intangible cultural heritage with its unique cultural connotation and artistic value. In this regard, the study of the ethnic history and culture of Dai hulusi music and its dissemination pathway during the period of digitalization transition is proposed. Based on the close connection between Dai hulusi music and Dai regional culture, music culture and folk culture, the national historical and cultural connotation of Dai hulusi music is comprehensively analyzed. Under the background of digital transformation, the digital music production technology is used to creatively transform the Dai hulusi music and create richer and more diversified musical works. A systematic communication pathway is constructed with the integration of traditional and modern augmented reality performances, immersive virtual reality concerts, and digital audio broadcasting and interaction that breaks the time and space limitations as the core.

INTRODUCTION

As an important part of intangible cultural heritage, ethnic minority music carries rich cultural connotation and historical value [1-2] . It is not only the embodiment of the wisdom and spirit of an ethnic group, but also reflects the living customs, social structure and aesthetic concepts of the ethnic group. Minority music, through its unique melodies, rhythms and instruments, demonstrates the cultural characteristics and artistic charm of each ethnic group, and has important research value for the study of ethnology, sociology, anthropology and other disciplines [3-4] . However, despite the important value of ethnic minority music, it still faces many challenges in the process of inheritance and promotion [5] . On the one hand, with the development of modernization and the acceleration of urbanization, traditional ethnic music culture has gradually lost its attraction among the younger generation, and its inheritance is facing difficulties.

Inadequate education system: The current popularization rate of music education is high, but the education of folk music is still insufficient, and school music education mainly focuses on Western music, while folk music is marginalized [6-7] . On the other hand, under the impact of globalization and popular culture, folk music faces competitive pressure and a narrow market, which affects the income of folk musicians and the interest of the younger generation in folk music. This has also resulted in many traditional folk music instruments being left uninherited, and the transmission of performances and traditional songs being limited [8] .

In a study on the protection of the intangible cultural heritage of Yunnan's ethnic minority music [9] , it is proposed that more ethnic music talents be cultivated by increasing the proportion of ethnic music in the school music curriculum. At the same time, it is proposed to establish a professional organization for the transmission of traditional skills and to encourage older folk musicians to pass on their skills to the younger generation. On the basis of maintaining the tradition, modern elements are also introduced for innovation and fusion to make folk music more fashionable and attractive [10] . In the multifaceted evaluation and analysis of the sustainability of Yunnan folk music [11] , the current inheritance of Yunnan folk music among the younger generation, including the effectiveness of school education and social inheritance, is analyzed, as well as the recognition and influence of Yunnan folk music in the society, including the attitudes of the government, academia, and the general public, and

the market competitiveness and potential for the development of Yunnan folk music is assessed. It also evaluates the competitiveness and development potential of Yunnan folk music in the market, including the integration of music industry, tourism and culture. Meanwhile, strategies and suggestions for the sustainable development of Yunnan folk music, such as strengthening education and popularization, promoting cross-border cooperation, and strengthening policy support, are proposed, which provide useful references for future protection and inheritance work [12] . The synthesis of the above analysis and the reference to related research shows that further deepening the dissemination of folk music is of great practical significance, and it is also the key to promote its inheritance and development.

On the basis of the above, this paper proposes a study on the national history and culture of Dai hulusi music and its dissemination channels in the digital transformation period. On the basis of fully clarifying the connotation and value of the national history and culture of Dai hulusi music, the paper proposes an innovative research on the dissemination channels by combining with the technological advantages of the digitalization transition period.

1 ANALYSIS OF THE NATIONAL HISTORICAL AND CULTURAL COMPOSITION OF DAI HULUSI MUSIC

As an important part of Dai culture, Dai hulusi music has a close connection with Dai regional culture, music culture and folk culture. Therefore, this paper analyzes the national historical and cultural connotations of Dai hulusi music from the above three directions.

1.1 Relationship with the regional culture of the Dai people

The Dai Hulusi music is closely connected with the regional culture of the Dai people. Analyzed from the point of view of natural conditions, the Dai mainly live in the southwestern part of Yunnan Province, where the climate is warm and humid, rich in natural resources, especially the large growth of gourds and bamboo, which provides unique conditions for the production of hulusi [13] . This regional characteristic has made hulusi an indispensable part of Dai culture. Analyzed from the perspective of cultural patterns, the uniqueness of the Dai regional culture has given the hulusi a unique sound and style. Hulusi is pronounced with a slight nasal sound, and its soft and melodious tone complements the gentle and subtle character of the Dai people, reflecting the unique flavor of the Dai culture. Analyzing from the perspective of social customs, in the traditional festivals of the Dai people, such as the Water Festival and the Open Door Festival, the performance of hulusi is an indispensable program. It is accompanied by Dai dances, creating a cheerful and peaceful atmosphere, and has become an important part of Dai social customs [14] .

1.2 Relationship with Dai music culture

Dai hulusi music is an important part of Dai music culture. Analyzed from the point of view of musical style, as a traditional instrument of the Dai people, the music style of hulusi is deeply influenced by the music culture of the Dai people [15-16] . The Dai music is characterized by softness and lyricism, and the hulusi music also has this feature, which shows the unique charm of the Dai music through its unique tone and playing skills. A series of special techniques such as "false finger vibrato", "abdominal vibrato", "beating", "repeated sound", "sliding sound", and "cyclic air change" not only enriches the expressive power of the hulusi, but also promotes the development of Dai music culture. The use of these techniques enables the hulusi to play music with different themes, genres, moods and emotions, which deeply expresses the emotional world of the Dai people. Analyzed from the perspective of music culture, with the development of the times, the hulusi has not only been widely spread in the Dai area, but also gradually spread to the whole country and the world [17-18] . In this process, the communication between hulusi music and other music cultures has been deepened, which not only enriches the connotation of Dai music culture, but also promotes the dissemination and development of Dai music culture.

1.3 Relationship with Dai folk culture

Dai hulusi music is closely connected with Dai folk culture and is an important form of expression of Dai folk culture. Analyzed from the perspective of marriage and love customs, in the past, the hulusi was a way for young Dai men and women to express their love and affection, and was regarded as a musical instrument that could "speak". The expression of love by Dai youths through the hulusi [19-20] reflects the euphemistic and subtle custom of Dai marriage. This custom not only reflects the Dai people's love and pursuit of music, but also enriches the connotation of Dai folk culture. Analyzed from the perspective of religious ceremonies, the hulusi also plays an important role in the religious ceremonies of the Dai people. As a tool for communicating with the gods, it creates a solemn atmosphere through its unique sound and melody [21-22] , reflecting the devotion and reverence of the Dai people for religion. Analyzed from the point of view of living customs, hulusi music is also integrated into the living customs of the Dai people. In the Dai villages, the performance of hulusi is often accompanied by various celebrations and scenes of daily life, becoming an indispensable part of the Dai people's life. This form of music has not only enriched the spiritual world of the Dai people, but also promoted the inheritance and development of Dai folk culture [23-24] .

2 Creative Transformation of Dai Hulusi Music in the Context of Digital Transformation

Digital music production technologies can bring unprecedented convenience and innovative space for the creation of Dai hulusi music. Through these technologies, the timbre of hulusi can be finely adjusted to create richer and more diverse musical works [25] . In the specific creative transformation process of Dai hulusi music, this paper utilizes digital realization as shown in Table 1.

Table 1 Digitalized Dai Hulusi music production

Production stage	Production method	Notes
Timbre sampling and synthesis	Using audio sampling technology, collect samples of gourd silk timbre from different materials and production processes, and edit and synthesize them using a digital audio workstation (DAW)	The natural sound of traditional gourd silk can be combined with modern electronic sound to create music works that retain both traditional charm and modernity
Music arrangement and mixing	Using digital music production software (such as Ableton Live, FL Studio, etc.) to arrange the melodies played by Hulusi, incorporating elements such as electronic drumbeats and synthesizer tones, to form a cross disciplinary and integrated music style	Using mixing technology to adjust the volume, balance, and effects of each track, making the music more full-bodied and three-dimensional
Virtual instrument simulation	By simulating plugins for other traditional instruments (such as Chinese folk music plugins) for reference and adaptation, a virtual instrument with a sound similar to gourd silk is created	Using this virtual instrument for creation and performance in a digital music production environment

According to the way shown in Table 1, the digital production of Dai hulusi music is realized through timbre sampling and synthesis, music arrangement and mixing, and virtual instrument simulation. With the help of this transformation process, it can not only provide the basic conditions for the spread of Dai hulusi in a wider range, but also guarantee the expansion of the audience of hulusi music.

3 DIGITIZING THE DISSEMINATION PATHWAYS OF DAI HULUSI MUSIC

3.1 Augmented reality performance: an audio-visual feast integrating tradition and modernity

In the content design stage, first of all, it is necessary to clarify the theme and story line of the AR performance, and create creative ideas around the unique charm of Dai culture, natural scenery and Hulusi music. A series of virtual scenes can be designed to match Hulusi playing, such as daily life in Dai villages, festival celebrations, natural landscapes, etc., to ensure that the content is consistent with the cultural characteristics of the Dai people and the emotional expression of music. On this basis, choose mature AR development platforms and tools, such as Unity, Unreal Engine, etc., and combine them with professional AR SDK (software development tool kit) for scene construction and interaction design. At the same time, consider device compatibility to ensure that most smartphones and AR glasses can run smoothly. Invite well-known Hulusi players to participate in the performance to ensure the professionalism and artistry of the music. At the same time, we work closely with the AR technology team to perfectly integrate traditional music with modern technology. In the performance implementation stage, it is necessary to select a suitable venue for AR performance, such as a concert hall, cultural center or outdoor square. Design according to the AR scene and arrange corresponding physical backgrounds or props to enhance the audience's immersion. At the same time, a special experience area is set up, and equipment such as AR glasses or mobile phone holders are provided to ensure that every audience can easily participate in the AR performance. In addition, interactive links can also be designed during the AR performance. For example, the audience can control virtual elements through gestures, participate in virtual games, or perform virtual ensembles with performers. Utilize the real-time tracking and feedback functions of AR technology to enhance audience participation and interactivity.

In the post-dissemination and feedback phase, the following three aspects need to be addressed, as shown in Figure 1.
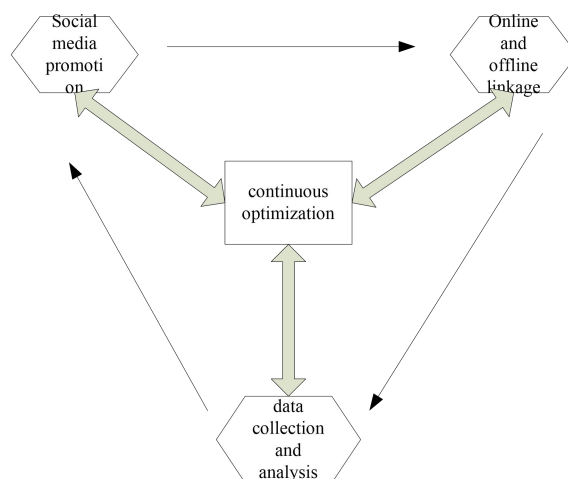
Figure 1 Post-dissemination and feedback

In terms of social media promotion, you can actively use social media platforms such as Weibo, TikTok, and Bilibili to publish highlights of AR performances, behind-the-scenes footage, and audience feedback videos to attract more people's attention and participation. In terms of online and offline linkage, AR performances can be combined with offline concerts, cultural festivals and other activities to form a communication effect of online and offline linkage. Through online and offline interactions, the audience scope of Dai Hulusi music will be expanded. In terms of data collection and analysis, data analysis and evaluation are carried out by collecting viewing data of AR performances, user feedback, social media interaction and other information. Adjust subsequent communication strategies and content design based on the analysis results to achieve precise communication and continuous optimization.

3.2 Virtual reality concerts: creating an immersive musical journey

In the concert planning stage, a VR concert with Dai cultural characteristics should be planned based on the characteristics and style of Dai Hulusi music. This includes determining the concert theme, repertoire arrangement and performance format and other details. At the same time, VR technology is used to build a realistic Dai village environment as the concert background. Specific scenes can contain rich detailed elements, such as bamboo buildings, wells, bamboo forests, etc., creating a strong Dai cultural atmosphere. At the same time, multiple viewing angle switching points are designed to allow the audience to freely explore the concert site. In the dissemination and promotion stage, we can also start from three aspects, as shown in Figure 2.
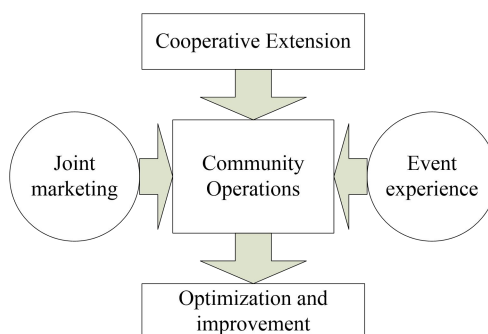

Figure 2 Communication promotion

In terms of cooperative promotion, we can establish cooperative relationships with VR equipment manufacturers, game platforms, music platforms, etc. to jointly promote VR concerts. Attract user attention and participation through joint marketing activities, limited-time free trials, etc. In terms of ticket sales, a VR concert ticket sales channel can be opened on the VR platform, providing a variety of ticket purchase methods and preferential activities. At the same time, explore ticket sales models that are linked to offline concerts to achieve mutual promotion between online and offline. In terms of community operations, a VR concert fan community can be established to regularly release concert previews, behind-the-scenes footage, audience feedback and other content. Improve user stickiness through community interaction and collect user opinions and suggestions to improve subsequent content and services.

3.3 Digital audio live broadcasting and interaction: breaking the time and space limitations of music sharing

In the era of digitalization, the dissemination of Dai hulusi music has ushered in unprecedented opportunities. Through digital audio broadcasting and interactive technology, Hulusi music is able to break the time and space limitations and realize global sharing and dissemination. First of all, with the help of various online broadcasting platforms, such as music exclusive platforms and social media broadcasting, Dai hulusi artists can show their exquisite playing skills in real time and interact with

the global audience. This form of live broadcast not only provides artists with diversified performance opportunities, but also strengthens the interaction between musicians and fans, which helps to enhance the popularity and influence of hulusi music. The audience can comment, like, reward and even participate in interactive Q&A in real time, which greatly stimulates the enthusiasm of the audience. Secondly, based on the online live music social platform, combining live broadcast and music socialization, building a new live broadcast and music social model. The platform as a carrier, the use of big data and artificial intelligence technology, for users to recommend personalized hulusi music content, while providing music social functions, such as creating music communities, sharing song lists, participate in music challenges. This model enriches users' music experience and provides a broader channel for the dissemination of hulusi music. Finally, social media and short video platforms can be fully utilized as an important position for the dissemination of hulusi music, taking advantage of their large user groups and powerful communication capabilities. Hulusi artists and music enthusiasts can post hulusi performance videos, teaching clips, music sharing and other contents on these platforms, and through interactive methods such as liking, forwarding and commenting, the audience scope of hulusi music can be expanded rapidly. In addition, the rich music labels and recommendation algorithms provided by short video platforms also help to accurately push hulusi music to interested users.

4 CONCLUSION

As a representative of Dai music culture, Dai hulusi is a valuable intangible cultural heritage. By promoting its dissemination through digital transformation, this cultural treasure can be more effectively protected and inherited to avoid its gradual disappearance in the process of modernization. Meanwhile, in view of the distinctive national characteristics and regional flavors of Dai hulusi music, digital transformation can also promote its wider dissemination and recognition in a wider range, so as to promote the unique charm of Dai culture. This paper proposes a study on the national history and culture of Dai hulusi music and its dissemination path in the digital transformation period. After analyzing the national history and culture of Dai hulusi music from various angles, the paper combines the digital technology to creatively transform the Dai hulusi music, and designs a systematic way of dissemination. With the help of this paper, we hope to contribute to the inheritance and development of national culture, promote the innovation and development of cultural industry, enhance the sense of cultural identity and cultural self-confidence, and better satisfy the growing spiritual and cultural needs of the people.

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