

Research on the Innovative Path of Dynamic Inheritance of Traditional Local Music under the Background of Digitization

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Abstract:

Against the backdrop of deep integration of digital technology into cultural production and dissemination systems, the existence and inheritance mechanism of traditional local music are undergoing structural transformation. Using digital technology, artificial intelligence, and platform media as the main technological systems, reshape the recording and preservation methods of intangible cultural heritage in the music industry, and transform them from static protection to dynamic inheritance. On the basis of analyzing the value shift of traditional local music inheritance under the background of digitization, this article explores its practical paths in digital resource construction, innovative communication modes, intelligent technology empowerment, and education inheritance ecology construction. Research suggests that digitization has not only increased the visibility and dissemination of traditional music, but also to some extent changed the way traditional music culture is generated. However, it has also brought new problems such as algorithm filtering and cultural homogenization. Therefore, it is necessary to create an integrated and dynamic inheritance system based on digital infrastructure, diversified dissemination as a means, intelligent innovation as a driving force, and education inheritance as the core, in order to achieve the creative transformation and sustainable development of traditional local music.

Keywords:

Digitalization, Traditional Local Music, Intangible Cultural Heritage, Living Heritage Transmission

1. Introduction

In the context of digital media empowering daily life and public cultural systems, traditional music heritage is gradually breaking away from local traditional rituals and entering a composite communication space built by imaging technology and platform mechanisms. Its way of existence and meaning generation have also undergone deeper changes [1]. Local music, which used to rely on regional social structures and oral transmission methods, has now been re encoded into digital cultural resources that can be stored, disseminated, and re edited. It is neither a technological update nor a cultural reshaping. From the perspective of cultural heritage protection, the “liveliness” of traditional local music refers to its continuous practice and

development in the real society, rather than being fixed as a static text in museums. In the context of digitization, how to achieve a balance between technological intervention and cultural authenticity, and how to prevent algorithmic logic from over regulating cultural expression, has become a current research focus. Therefore, it is necessary to explore from a systematic perspective how digitalization can help the dynamic inheritance of traditional local music, and thus create innovative approaches that are in line with the new era.

2. The Connotation of Dynamic Inheritance

Active inheritance refers to a way of inheriting, updating, and regenerating traditional culture in the current context through continuous social practice and dynamic reproduction mechanisms, while maintaining the core spirit and ontological characteristics of cultural heritage. Unlike static protection mode, dynamic inheritance places more emphasis on the subjectivity of cultural practice and the generativity of the inheritance process, highlighting the embedding and contextualized expression of traditional culture in real life. In the context of digitization, dynamic inheritance further breaks through the constraints of time and space, utilizing digital technology to achieve multimodal recording, immersive reproduction, and interactive transmission of cultural information, transforming traditional culture from a “preserved object” to a dynamic cultural system that can be experienced, participated in, and recreated, strengthening its enduring vitality and cultural identity function in contemporary society.

3. The Contemporary Value of the Dynamic Inheritance of Traditional Local Music Under the Background Of Digitization

3.1. Promote the systematic protection of traditional local music resources

Digital technology has the characteristics of fast dissemination speed, wide dissemination range, and large storage capacity, which can provide digital technology support for promoting the active inheritance of intangible cultural heritage music [2]. By relying on technologies such as big data collection, cloud storage, digital twins, and multimodal database construction, traditional music can achieve high-precision reproduction of audio, image, genealogy, and other information. It can also incorporate performance contexts, cultural contexts, and inheritance pathways into a unified digital architecture, thereby forming a continuously updated “digital cultural gene bank”. The systematic protection method breaks through the traditional constraints of relying on oral transmission and physical storage, making intangible cultural heritage music more stable in time and achieving cross regional sharing and retrieval in space. The addition of intelligent labeling and algorithm classification technology has also improved the speed of cultural resource organization, shifting traditional local music from fragmented preservation to structured integration, laying a solid data foundation and technical support for subsequent active inheritance and innovative development.

3.2. Enhance the breadth and depth of traditional local music dissemination

The involvement of digital technology, on one hand. Expanded the exposure and dissemination scope of traditional music heritage, enabling it to acquire cross regional, cross-cultural, and interdisciplinary dissemination capabilities, and enter into discussions of public culture on a larger scale, providing new media channels for

diverse intergenerational cultures [3]. On the other hand, digital media not only changes the transmission path, but also reshapes the way audiences participate, transforming users from passive recipients to content co creators and re dissemination nodes. This participatory communication structure endows traditional music with stronger social interaction and cultural interpretation space, making it easier for people to understand and interpret in a globalized environment.

3.3. Inspire the innovative development vitality of traditional local music

In the context of digitization, the combination of artificial intelligence, virtual reality, and digital audio processing technology has provided new technological avenues for the creative transformation of traditional local music, while maintaining cultural genes and promoting changes in expression forms. By analyzing the traditional music structure through machine learning models, melodic features, rhythm patterns, and emotional expression logic can be obtained. Based on this, re creation content with style transfer ability can be generated, promoting the integration and development of traditional music with modern music forms such as electronic music, film and television music, and game music. The application of immersive technology has shifted traditional music from a traditional “auditory experience” to a “multisensory experience”, enhancing its artistic expression and infectious power. The technology driven innovation mechanism not only expands the scope of traditional music expression, but also provides sustained impetus for its regeneration in the contemporary cultural industry system.

3.4. Promote the integration of local cultural heritage and cultural tourism development

In the context of cultural and tourism integration, traditional local music has become an important part of local cultural brands, and has been transformed into consumable and interactive cultural resources through digital display and immersive experiences. By utilizing virtual reality, augmented reality, and digital exhibition platforms, local music can be embedded into tourism spaces and cultural scenes, allowing tourists to achieve a profound understanding and emotional resonance of local culture through participatory experiences. Digital technology has shifted cultural dissemination from “exhibition based dissemination” to “experiential dissemination”, treating local music as a cultural symbol and embedding it as the core of cultural experience in the cultural tourism product system. After the deep integration of culture and industry, it can not only enhance the overall dissemination of local culture, but also promote regional economic development and the formation of cultural identity, thereby achieving the dual transformation of cultural value and economic value.

4. Innovative Path for the Active Inheritance of Traditional Local Music under the Background of Digitization

4.1. Consolidating the foundation of digital resources: building a smart protection system for traditional local music

Digital collection and storage are the cornerstone of digital protection of music intangible cultural heritage, and their quality directly affects the effectiveness of subsequent protection and inheritance work [4]. The resource infrastructure of traditional local music has evolved from simple audio and video preservation to

multimodal, structured, and intelligent, forming a smart protection system with data collection, semantic annotation, intelligent analysis, and long-term storage as the chain. Taking the digital twin system of Bunuyao folk music in Guangxi as an example, by establishing a digital model that links “music scene person”, the ritual field, singing actions, and sound structure are synchronized and digitized. This not only completes the recording of sound, but also reconstructs the cultural context space, transforming music from isolated audio into cultural elements embedded in social structures. The Shaanxi Gansu region has initially established a “Traditional Music Digital Gene Bank”, using scale feature extraction and AI recognition technology to transform folk music into structured data units that can be calculated and retrieved, thereby achieving systematic preservation and comparative research of endangered songs. On this basis, the digital resource system also needs to incorporate artificial intelligence automatic annotation, dialect speech recognition, and emotion recognition models to deepen the semantic depth and cultural interpretability of the data. At the same time, blockchain technology should be utilized to strengthen data ownership and copyright protection, in order to avoid cultural appropriation and commercial alienation of intangible cultural heritage music in platform based dissemination. More importantly, the intelligent protection system is not simply a combination of technology. It takes the maintenance of cultural authenticity as its main purpose, uses technological means to restore the social relationship network and ritual context of local music, and maintains the cultural continuity and historical depth of local music in the digital space, thus achieving a transformation from salvage recording to systematic activation.

4.2. Innovative communication mode: create a diversified and coordinated communication pattern

Digital platforms do not allocate visibility based on the structural logic of music itself, but rather determine which content is pushed by more traffic based on its dissemination effect [5]. In the communication ecosystem dominated by platform algorithms, traditional music concerts are trapped in the dilemma of “visibility imbalance”, where content with profound cultural connotations cannot receive corresponding communication weights. Therefore, forming a diverse and collaborative communication pattern is the main way of dynamic inheritance. For example, the Kugou Music Intangible Cultural Heritage Zone gathers traditional music such as Peking Opera, Cantonese Opera, Huangmei Opera, etc., and conducts live performances and digital exhibitions, allowing the playback of intangible cultural heritage music to exceed one million times, achieving the expansion of intangible cultural heritage music from professional cultural circles to the public communication space. At the same time, in the practice of intangible cultural heritage protection in various regions, the “cloud stage” model has been applied to online exhibitions, short video dissemination and other occasions, breaking through the limitations of time and space, bringing traditional music into daily media consumption scenarios, and achieving the transfer of dissemination from temples to platforms. On this basis, a collaborative communication network based on platform, community, education, culture and tourism should be established to form a cross platform communication matrix with the help of the co creation of content among different subjects and the mutual promotion of communication. For example, local music can be embedded into short video platforms for fragmented dissemination, presented in context in museums and cultural institutions, and disseminated through the curriculum system of universities, thus forming a multi-level communication structure. In addition, it is

necessary to attach importance to the narrative reconstruction of the dissemination content, through storytelling expression, personification narrative, and immersive interaction, to increase user participation and transform traditional music from a “watched object” to a “participatory cultural practice”, thereby strengthening its dissemination depth and cultural interpretation ability. In the propagation environment dominated by algorithms, diverse collaborative mechanisms can effectively regulate the contradiction between traffic logic and cultural values.

4.3. Deepening intelligent empowerment: promoting the creative transformation of traditional local music

In the context of digitization, artificial intelligence and generative technology are profoundly reshaping the creative logic of traditional local music, shifting it from “experience driven creation” to “data-driven generation”. Therefore, using machine learning and deep neural network models, feature extraction can be performed on the melody structure, rhythm patterns, and emotional expression of traditional music, thereby constructing a generative system with style transfer ability. For example, Tencent Music's Guqin digitalization project with relevant institutions utilizes AI sound modeling and emotion analysis technology to generate “healing Guqin music”, which not only achieves digital reproduction of traditional timbres, but also promotes their entry into the modern music consumption environment. Internationally, the music condition generation model (AIST++dance music generation system) has also demonstrated that multimodal AI can achieve collaborative generation of music and body movements, providing technical support for cross media expression of traditional music. In local music practice, a “traditional music style model” can be created to achieve melody recreation and cross style integration. Folk song elements can be combined with electronic music, film and television scores, or game sound effects to construct a new music form with contemporary aesthetic characteristics. However, intelligent empowerment does not mean completely replacing human creative subjects. Instead, a “human-machine collaborative” creative approach should be adopted, where artificial intelligence completes the tasks of structural generation and style analysis, while human creators control the imparting of cultural meaning and aesthetic judgment to prevent excessive regulation of cultural expression by technology. In addition, it is necessary to create an algorithmic ethical framework to prevent the dilution of style or misuse of cultural symbols in the generation of traditional music, so that creative transformation always serves the continuation and strengthening of cultural subjectivity.

4.4. Improving the inheritance mechanism: building a digital education and inheritance ecosystem

The traditional dynamic inheritance not only relies on technology and dissemination, but also on the structural support of the education system. In the context of digitalization, a multi-level inheritance ecosystem based on digital education platforms should be created to integrate traditional music into a standardized, systematic, and sustainable knowledge dissemination system. For example, some regions have carried out remote teaching and digital dissemination of traditional music courses through methods such as “intangible cultural heritage cloud classrooms” and online music education platforms, enabling learners to break through geographical limitations and access local music resources. At the same time, universities and cultural institutions can also explore the cultivation of “digital

inheritors” by using virtual simulation, interactive learning systems, and AI assisted teaching methods, allowing students to experience the cultural environment and performance logic of music in an immersive environment. Taking the digital protection practice of folk songs in the Yellow River Delta as an example, by establishing a multimedia database and VR performance system, the original music form that relied on oral transmission is transformed into a visual and interactive learning resource, thus reshaping the traditional teaching mode. On this basis, we should continue to promote the collaborative mechanism of inheritors, digital platforms, educational institutions, and communities, so as to transform the inheritance of intangible cultural heritage from a single subject to a diversified co construction model. At the same time, we should attach importance to the participation of young people in digital cultural production, and use project-based learning, digital creative practices, cultural competitions, and other methods to stimulate their creative consciousness and cultural identity, and promote their re creation of traditional music. Ultimately, the goal of digital education and inheritance ecology is not simply knowledge transfer, but to build an open system that can continuously generate cultural significance, enabling traditional local music to truly “live and continue” in the digital age.

5. Conclusions

Digital technology is having a profound impact on traditional and local music, transforming it from a closed and localized cultural form to an open and digital cultural ecosystem. Technology is both an empowering tool and a structural variable here. On the one hand, it can improve communication efficiency, but on the other hand, it can also pose a risk of cultural expression alienation. Therefore, the dynamic inheritance of traditional local music cannot be simply replaced by technology, but should form a dynamic balance between technology and culture. In the future, we will continue to strengthen the construction of digital infrastructure, improve the ecological structure of communication, promote the application of intelligent technology, improve the education inheritance system, and promote the true creative transformation and sustainable development of traditional local music in the digital age.

Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

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