



Innovative Strategies and Approaches for the Living Transmission of Intangible Cultural Heritage Based on Digital Media Art

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Abstract: As a living repository of the genetic code of China's outstanding traditional culture, the core value of intangible cultural heritage lies in the transmission of inherited skills and the expression of humanity as it exists today. However, due to the impact of modern lifestyles, most intangible cultural heritage projects face widespread challenges, including a limited audience, weak dissemination capabilities, and unsustainable transmission. This article focuses on the interactive role, innovation, and comprehensive benefits of digital media art in cultural exchange. It explores how digital media art can serve as a vehicle to overcome the core challenge of "intangible communication" by addressing both resource and talent development systems.

Keywords: digital media art; dynamic dissemination of ICH; innovation strategies; implementation strategies

1. Introduction

Intangible cultural heritage represents a cultural treasure accumulated over thousands of years through the production and daily life practices of the Chinese nation. It embodies the fusion of the aesthetic preferences and cultural identities of people across different regions, serving as a vital vehicle for preserving the foundations of national culture and strengthening cultural confidence. With the advent of the digital age, new media technologies — led by the mobile internet — are profoundly transforming the way people receive information and consume culture. Traditional modes of transmission — such as "oral tradition" and "live demonstrations" — fail to adequately meet the cultural needs of younger generations. As a result, many outstanding intangible cultural heritage projects are gradually fading from public view, finding themselves in the awkward position of being "buried deep underground." Digital media art, with its cross-media integration and immersive interactive methods, creates new opportunities for the integration of intangible cultural heritage practitioners into modern society.

2. The Core Challenges of the Living Transmission of Intangible Cultural Heritage and the Breakthrough Potential of Digital Media Art

Intangible cultural heritage represents a precious legacy accumulated by the Chinese nation over the course of its long history of production and daily life, embodying a nation's cultural DNA and spiritual essence. For a long time, the dissemination and transmission of China's ICH have primarily relied on state-led traditional channels, concentrated mainly in specific settings such as folk festivals. However, the younger generation has largely grown up in an internet-driven environment; they lack a full understanding of the cultural value of ICH transmission, show little interest in traditional modes of communication, and very few are willing to invest time in learning these skills. Secondly, there is a disconnect between non-mainstream dissemination and deep understanding. Currently, the dissemination of ICH remains confined to superficial aspects such as festival displays and pictorial introductions, while explanations of the historical transformations, personal narratives, and technical logic embedded within it are scarce. The general public can only perceive it from perspectives such as "visually appealing" or "ancient," rather than understanding its connection to real life. Consequently, it is difficult for them to develop emotional identification or cultural resonance, and naturally, they are unlikely to actively participate in the protection and transmission of ICH.[1]

The rise of digital media art has opened up a new path to overcoming this dilemma. First, digital media art overcomes the temporal and spatial limitations of ICH dissemination. With the support of the internet and mobile platforms, audiences of all ages — whether young workers in remote areas or amateur enthusiasts living in remote regions — can access it anytime, anywhere. Second, digital media art can reconstruct ICH content in a way that aligns with the aesthetic preferences of today's audiences. Practitioners can transform abstract artistic processes and profound cultural connotations into visual, interactive experiences. For example, by creating 3D models to demonstrate the carving of traditional wood sculptures or using animated sequences to recreate the entire process of traditional weaving, viewers can directly experience the techniques of ICH, thereby overcoming the entrenched perception that such traditions are "obscure and difficult to understand."

3. Innovative Strategies for the Dynamic Dissemination of Intangible Cultural Heritage Based on Digital Media Art

3.1 Creating Spaces for Intangible Cultural Heritage Experiences

Unlike traditional exhibition methods that rely solely on static images or physical artifacts, digital media art can create immersive, interactive spaces that transform audiences from “passive observers” into “active participants,” allowing them to truly engage with the cultural context. For example, in a special exhibition hall dedicated to ICH, technologies such as projection mapping and physical interaction can be used to create an immersive exhibition space. When visitors enter the Suzhou embroidery experience zone, the walls project the flowing motion of silk threads using different embroidery techniques in response to their movements. Tapping the wall reveals detailed explanations of the corresponding stitches, and visitors can use physical tools to mimic the needle and thread, “completing” a simple Suzhou embroidery piece with their own hands. Such hands-on experiences allow people to appreciate the unique qualities of Suzhou embroidery far more effectively than mere textual explanations. [2] Additionally, leveraging the Metaverse platform to build virtual intangible cultural heritage (ICH) experience centers online offers significant advantages. Unbound by physical locations or visitor capacity, these virtual spaces allow people nationwide to access the exhibits anytime, anywhere, and participate in interactive experiences alongside family and friends. This approach addresses the funding challenges associated with establishing physical ICH exhibition spaces and overcomes geographical limitations, thereby creating an engaging, promising, and sustainable platform for the dynamic dissemination of intangible cultural heritage.

3.2 Activating Public Co-creation Mechanisms

The core of the living transmission of intangible cultural heritage lies not merely in the one-way creation by a few generations, but in the participation of the general public. Through creative practice, we can achieve the transmission of both art and culture. The growth of digital media art has broken down the barriers between professional creators and the general public. On the one hand, by utilizing mini-programs, AI creative tools can be developed to facilitate the input of intangible cultural heritage creations and lower the barrier to entry for the general public. For example, for the intangible cultural heritage of paper-cutting, an AI paper-cutting tool could be developed. Users would simply upload their own photos of landscapes or people, and the algorithm would generate a work in the paper-cutting style with a single click. Users could then adjust texture details, change colors, and finally export the work — which could be saved or connected to offline printing equipment for output. For different types of intangible cultural heritage, such as traditional New Year paintings and shadow puppetry, modular online creation tools can also be designed. Without the need for tedious line-drawing or rigid techniques, users can generate works by simply combining predefined pattern modules. This lightweight approach encourages many young people — who might otherwise feel that intangible cultural heritage is distant from them — to actively create and share on social platforms, thereby naturally fostering viral dissemination. [3] Additionally, leveraging digital creative platforms, we can jointly call on the general public to: to engage in derivative works based on ICH elements. For example, inviting illustrators to create contemporary illustrations inspired by the colors and textures of Dunhuang murals; inviting fashion designers to integrate traditional Miao silver patterns into clothing designs; and inviting ordinary users to create animated wallpapers and cultural patterns using elements from the red walls of the Imperial Palace. High-quality collaborative creations can generate tangible economic benefits.

3.3 Expanding the Application Scenarios of Intangible Cultural Heritage

Traditional intangible cultural heritage is gradually fading from public view, primarily because its application scenarios have become detached from people’s practical needs: many traditional crafts were originally intended to serve traditional agricultural life, or have gradually disappeared as people’s lifestyles have changed. Rather than serving as “cultural specimens,” they now exist primarily as exhibits. Digital media art offers an effective way to meet people’s daily needs and expand the scope of application for intangible cultural heritage. First, integrating ICH into digital public cultural spaces creates an omnipresent cultural environment: for example, visitors can unlock different Suzhou embroidery stitches via screens, observe the entire carving process, and experience dynamic dragon boat races and nighttime lantern displays. This allows ICH elements — which were previously only accessible in exhibition halls — to naturally blend into citizens’ daily tourism and fragmented consumption scenarios; Furthermore, ICH elements can be integrated into various online applications, such as keyboard skins, mobile phone themes, and social media emojis. By incorporating dynamic ICH into daily social and work environments, we expand the contexts in which ICH is applied, making the experience more vivid and immersive. Secondly, promoting the deep integration of digital scenarios with the cultural tourism industry to create new immersive experiences: Many scenic areas are still limited to a two-dimensional model of “on-site exhibitions, visitor photography,

and map creation,” making it difficult to grasp the cultural essence. By utilizing digital media technology, we can construct immersive experience spaces centered on cultural content. For example, regarding the craftsmanship of oil-paper umbrellas, an immersive digital exhibition hall could be created where visitors, guided by digital projections, personally experience the entire production process — from cutting bamboo to applying tung oil and attaching the oil paper — and can also admire the dynamic beauty of oil-paper umbrellas from different eras within a virtual setting. [4] For folk-based intangible cultural heritage such as the Liangzhu and Baishachuan traditions, interactive, digital, and immersive theaters should be established. These would allow visitors to embody characters within the stories and, as the plot unfolds, experience the cultural depth of the intangible cultural heritage.

4. Building Pathways for the Living Transmission of Intangible Cultural Heritage Based on Digital Media Art

4.1 Establishing a Digital Resource Repository and Creative Toolchain for Intangible Cultural Heritage

First, we must systematically collect and organize intangible cultural heritage resources scattered across various regions and held by different inheritors. In addition to traditional textual and visual records, we must also utilize digital methods such as 4K high-definition photography and 3D scanning to comprehensively document the processes of traditional craftsmanship, the physical forms of artifacts, and oral histories. Taking Suzhou embroidery as an example, we must not only document textual descriptions of different stitch patterns but also use high-speed photography to recreate the textural details of high-quality Suzhou embroidery pieces from various historical periods through 3D models. These materials should then be categorized and preserved based on type, age, and transmission background. This will establish an open and easily accessible digital resource platform, providing researchers with comprehensive, firsthand data while offering creators reusable ICH materials. At the same time, we must further lower the barrier to entry for digital ICH creation. By collaborating with technical teams, we will develop a set of lightweight creation tools for general creators, such as a library of embedded ICH elements for poster design templates, virtual embroidery creation tools, and editors for the secondary creation of folk graphics. This will enable ICH inheritors and cultural enthusiasts who lack professional skills to more easily engage in digital creation of ICH content, laying a solid foundation for its further dissemination and secondary development.

4.2 Building a Talent System for Professionals with Expertise in Both Intangible Cultural Heritage Transmission and Digital Technology

Ultimately, the active transmission of intangible cultural heritage depends on people. For a long time, the transmission of ICH and digital technology have belonged to two entirely distinct fields. While the older generation of ICH practitioners generally possess excellent traditional skills, they are largely unfamiliar with digital creation and online dissemination. Many capable successors who could produce outstanding works do not know how to utilize digital channels to enhance their skills, nor do they know how to adapt their skills to contemporary market aesthetics; At the same time, young creators have a limited grasp of digital media technologies and lack understanding of their cultural connotations and technical details. They are highly prone to straying from the cultural essence of ICH by overusing its elements, leading to the misconception of “pseudo-ICH” and consequently affecting the public’s perception of ICH. To break through this barrier, it is necessary to establish a well-structured talent training system. On the one hand, existing ICH inheritors should receive training in digital technologies. Digital media creators and new media operations specialists should be invited to ICH workshops to teach the basics of digital photography and explain creative processes and online management in simple, accessible terms. This will equip them with essential digital skills — such as teaching successors how to record audio with smartphones, use lightweight tools to create user-friendly digital content, and leverage social media to engage openly with young audiences — thereby enabling them to showcase their creativity. On the other hand, universities should introduce culture-related required and elective courses within their digital media arts curricula. National and provincial-level ICH inheritors should be invited into university classrooms, and craft workshops should be established. This will allow young creators to engage closely with ICH, gain a deep understanding of the cultural logic and artistic essence behind it, and avoid superficial or shallow creative work.

5. Conclusion

In summary, the living transmission of intangible cultural heritage is not a simple replication of traditional culture, but rather an effort to preserve its cultural essence while adapting to the trends of the times, thereby bringing ancient craftsman-

ship back into the lives of the general public. Digital media technology has broken through the constraints of time, space, and form, enabling the effective dissemination of intangible cultural heritage. This not only provides the public with tangible experiences but also sparks enthusiasm for participation, offering vast opportunities for the diversified development of intangible cultural heritage. This holds significant importance for advancing the development of China's intangible cultural heritage.

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