

Digital and Intelligent Empowerment: A New Era in the Cross-cultural Dissemination of Chinese Musicals

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Abstract: Digital and intelligent technologies have changed how musicals are spread around the world. Chinese musicals are at a crucial juncture now, and as they are moving towards globalisation from localisation, this paper examines how digital and intelligent technologies are changing the foundation of cross-cultural communication and studies all kinds of applications of such technologies, such as AI-assisted creation, digital stage design and data analysis, etc., proposing practical development paths; these include new media matrices, Sino-foreign co-creation and brand building. The key to the success of cultural export lies in integrating "technology empowerment—cultural translation—aesthetic consensus", and with digital and intelligent technologies as wings and culture as the core, building a new communication ecosystem that combines virtual and real worlds and promotes mutual development between online and offline areas is a strategic direction for Chinese musicals to achieve good results in cultural export.

Keywords: Chinese Musicals; Digital and Intelligent Era; Cultural Export; Global Dissemination; Cross-cultural Identity.

1. Introduction

With artificial intelligence now involved in melody composition, motion capture reshaping choreography, and immersive live streaming breaking through the physical boundaries of theaters, a new phase in the global dissemination of musicals has emerged. From the very beginning, digital and intelligent technologies have served as auxiliary tools, deeply permeating every stage of creation, production, dissemination, and consumption, thereby constructing an entirely new artistic ecosystem where the virtual and real worlds converge. After more than four decades of importing, emulating, and local innovation, Chinese musicals are currently at a critical juncture in their transition from "localization" to "globalization."

However, the "going global" of Chinese musicals has long faced a deep-seated challenge: while individual productions frequently tour abroad, they have failed to generate systematic cultural influence. Compared to mature export models such as South Korea's K-pop, Japanese anime, and American Hollywood films, there is a lack of a dissemination paradigm that effectively translates the core of Chinese culture into a cross-cultural aesthetic consensus. The digital and intelligent era has opened up new possibilities; technology has broken down barriers such as geography and language, creating a pathway for the digital transformation of cultural symbols. Therefore, this paper explores several aspects, including the reconstruction of communication logic, technological innovation in content production, the optimization of dissemination channels, and the establishment of brand awareness.

2. Reconstructing the Logic: From Work Export to Cultural Influence

Before analysing how digital and intelligent technologies are changing the globalisation of Chinese musicals, we need to clarify what cultural export means and why it is carried out. Only after solving the two basic problems of "what to export" and "how to do so effectively" can we study the development

of communication logic and the use of technology. Therefore, beginning with the core idea of cultural export, we will examine the changes in logic caused by digital and intelligent technologies, and finally conclude that "cultural influence" is a new theoretical system for this paradigm.

2.1. The Essence of Cultural Export

The sense of the academic concept of "cultural export" is constantly changing. In the early days of comparative literature and cultural studies, cultural export was generally regarded as a one-way street of cultural products from one country to another, and it was measured by quantitative indicators such as the number of performances, audience size, and the volume of copyright exports [1]. This is to say that culture is exported passively; it spreads overseas simply because a work has reached the eyes of the public abroad. However, extensive practical evidence shows that "absence from the heart" is not the same as "absence from the scene". There is a huge gap between a Chinese musical completing its run in an overseas theatre and genuinely touching the spiritual world of local audiences and creating lasting cultural influence.

Traditionally, cultural exports have been measured by how many performances have been held and how many people have attended. True cultural export should not only strive for the external goal of "the physical appearance of a work", but also aim higher to achieve "cultural embodiment in the spirit". Musicals combine music, drama, dance and visual arts; their strength in cross-cultural communication is that they can bypass the barrier of rational thought and directly touch the emotions of the audience. Digital and intelligent technologies can further enhance this emotional connection, and only by accurately discerning the aesthetic psychology and emotional needs of the audience can we inspire emotional resonance and cultural identity [2]. Therefore, the cultural export of Chinese musicals should not only help foreigners learn a story from a distance but also aim to achieve a higher purpose: to have them feel the universality of human emotions in the plot and thereby evoke interest and positive feelings toward Chinese culture among foreign audiences. Resonance can be achieved

at all three levels simultaneously, which are: cross-cultural comprehensibility of the story, universal emotional connection, and aesthetic balance between "strangeness" and "acceptability". If any one of the three is lacking, there will be a "deviation" in cultural export.

The overseas tour of the musical *Nan Kong* has also achieved considerable success. Based on the story of "Confucius's Renunciation of His Title", this production combines the Confucian spirit of "sacrificing oneself for the greater good" with modern music and has achieved an attendance rate of over 90% at all overseas performances. A viewer told me, "I didn't learn all the historical background, but I still felt the main character's desire for truth through the story." [3] The most desired result of cultural dissemination is to evoke the same emotion in all parts of the world.

2.2. The Evolution of Communication Logic Driven by Digital and Intelligent Technologies

The Evolution of Communication Logic Driven by Digital and Intelligent Technologies

The influence of digital and intelligent technologies on the world spread of musicals is not just an addition to the old distribution paths; rather, it has changed the entire chain—including "who distributes", "what is distributed", "how it is distributed", and "what the results are". The three types of restructuring are as follows.

First, with the dissolution of the boundaries of time and space, cultural exchange is no longer sporadic but has become a regular occurrence. In the old mode, the distribution of Chinese musicals abroad relied on physical tours; thus, a single production needed to go through many high-cost activities, such as obtaining visas, transporting sets, renting halls and organising local promotions—all within a short period of time, and after the tour ended, the cultural influence would naturally fade. Now, with the arrival of 5G ultra-high-definition transmission, VR/AR immersive experience and holographic projection technology, the physical constraints of theatres have been broken. A full-coverage 5G transmission technical solution is employed to obtain high-definition 4K video and a multi-channel sound system, so that people in different places can watch the performances of the China Oriental Performing Arts Group together; the delicate expressions of the actors and the texture of their costumes can be seen clearly on the cloud. AI, 3D and real-time filming technologies are used in the musical drama "Called: Dunhuang" at the National Centre for Information Technology and Media to recreate the splendid atmosphere of Dunhuang in the Tang Dynasty [4], allow those who cannot be there in person to feel the beauty of life from afar via online live-streaming. Cloud-based distribution has allowed Chinese musicals to reach their goals without relying solely on physical tours, and now they can connect with a large number of people around the clock and across the globe [5].

Second, various platforms have been established to distribute the cultural exports in a "decentralised" manner. In the past, with the help of traditional media, the spread of culture abroad was mainly carried out through a few large distribution channels and "gatekeepers" at mainstream media organisations, and they decided which works to promote. Now, thanks to platforms such as Facebook, Instagram and Weibo for social media; TikTok, YouTube Shorts and Bilibili for short videos; Spotify, Apple Music and NetEase Cloud Music for music streaming, and many others around the world,

all-encompassing distribution networks have been established. Each of these platforms has its own content regulations and target audiences; for example, TikTok is suitable for sharing short, eye-catching videos ranging from 15 seconds to a few minutes; Spotify can play entire songs; YouTube supports all kinds of long-form videos and community functions, etc. The various platforms show that a Chinese musical can take different forms according to its own characteristics and does not need to rely on a single channel to "cover everything". After the musical "Hamilton" was released on Disney+, its global view count quickly exceeded 100 million, demonstrating that the phased distribution method of "theater first, streaming second" is feasible, and this model is now being applied to the overseas promotion of original Chinese musicals.

Thirdly, the way culture has been disseminated has changed; it is no longer the old model of "casting a wide net" but a more targeted distribution system today. In the past, all parts of society were included in cultural dissemination, but this was inefficient because the potential interest groups could not be identified accurately. Now that there is content distribution based on user profiles and personalised recommendations according to behavioural data, Chinese musicals have been spreading overseas more precisely, reaching people around the world who have previously enjoyed similar Western musicals, Asian pop music or Chinese films and TV shows [6]. Targeted outreach can reduce the "noise" of cultural exports, distribute distribution resources more reasonably, meet the specific needs of some groups better, and thus improve both the scope and efficiency.

2.3. Cultural Influence: Establishing a New Paradigm

Based on the above analysis of the essence of cultural export and the driving force of digital and intelligent technologies, this paper holds that in the digital and intelligent era, the cultural export of Chinese musicals should move from the traditional model of "export of works" to the current form of "cultural contagion".

Cultural contagion is an idea borrowed from the spread of viruses in communication studies that has been positively reinterpreted; that is, it refers to how cultural values are spontaneously absorbed and spread in people's minds due to their own artistic appeal. One characteristic of this spread is that after experiencing a work of art, individuals are motivated to create derivative works (such as cover songs or fan fiction), spread the work via social networks, and distribute it on all platforms, thus forming a self-reinforcing loop of sharing. The "cultural contagion" model is not a "work export" model; instead, it is recipient-centric and considers what the recipients can absorb, understand and spread.

With the help of digital and intelligent technologies in the Information Age, a new era has begun. Algorithms can recommend works to a larger number of people; social media has increased the dissemination of ideas through user participation; streaming platforms have enabled more frequent publication of works; and now many users are creating and sharing content, turning former passive viewers into active sharers. Therefore, these technologies can be used to promote cultural creation and shape how this culture is disseminated to the public.

With the new era, indices to measure the diffusion of culture have also begun to appear. Streaming numbers can show how far a work has spread on the Internet; the quantity

of user-generated content indicates the level of audience participation; the frequency of social media discussions reflects how widely cultural topics are talked about publicly; and how often such works are covered or adapted in various countries can indicate their "vitality" in different cultural contexts. All these signs point to the same problem: are Chinese musicals truly "alive" in the cultural consumption of the global audience, or are they merely "present" on overseas stages?

When an aria from Chinese music is covered by Brazilian netizens, edited into short videos by Japanese people, or included in the annual recommendations list of a German music critic, it is no longer the unilateral dissemination of national will but an unintentional aesthetic choice by global cultural consumers; this is the desired outcome of the "cultural contagion" model.

3. The International Translation of Cultural Codes Empowered by Digital Intelligence

3.1. AI-Assisted Creation and the "Computable" Translation of Cultural Elements

With the application of artificial intelligence in the creation of musical theatre content, many people have begun to collaborate with machines instead of working alone. According to the 2026 report, 89% of the current AI users are creators.

The fundamental attribute of AI is that it can be calculated. Based on the above characteristics of traditional Chinese scales, opera melodies and ethnic instrument timbres, stylistic parameters have been established to achieve "international adaptation" – that is, while retaining the uniqueness of ethnic music, its melodies, rhythms and harmonies are more accessible to international listeners [7]. Help improve the quality of lyrics and translate or adapt them in different languages. AI is a "translation instrument" and not a "creator", so the immediacy and flexibility of live stage performances, as well as the dramatic organisation of musical narratives, must still be judged by human creators [8]. The ideal model is for AI to handle technical support tasks, thereby freeing creators to focus on the core artistic aspects.

3.2. Contemporary Expressions of Digital Stage Design and Traditional Aesthetics

The digital transformation of stage design has opened up new ways for local culture to be presented internationally. Traditional Chinese aesthetics believe that "the most wonderful things are often simple" and that "there is no opposition between reality and illusion"; digital stage design technology has provided many ways to realise this idea.

The first production of the musical *Nezha* took place in London. Teams from Broadway and the West End of London have produced this work, and it is based on the myth of Nezha, combining rock and hip-hop with the Dong Grand Song of Guizhou. British audiences have found that although there are cultural differences, they are not insurmountable; rather, through music and stage direction, they have been able to elicit emotional responses in the audience. Digital stage design can translate abstract concepts such as "qi" and "yin-yang" into visual images that are easily grasped by people around the world. The presentation of the immersive Kung Fu

Opera ARCHE at the Munich Biennale also shows that the intangible cultural heritage tradition of "qi" can be expressed in a modern way.

3.3. Data-Driven Audience Insights and Content Optimization

Cultural outreach should be based on an understanding of the people it aims to reach. Big Data Technology is a new way of thinking. The aim of gathering audience data is to know what kind of works the general public likes, predict which ones will be popular based on data analysis (SAM, an AI assistant developed by the Schubert Organization on Broadway in 2026, has already begun to use this), and thus make better marketing and distribution decisions to boost ticket sales. Chinese musicals need to build a closed-loop system of "data collection - audience analysis - content optimisation - promotion and distribution - feedback and refinement" and move from intuitive production to data-driven production.

4. Culture Outreach Strategies Driven by Digital and Intelligent Media

4.1. New Media Matrix and Tiered Communication

Building a composite matrix covering international platforms such as YouTube, TikTok, Instagram, and Spotify is an essential path for Chinese musicals to go global. Among the three dimensions, strategy is the most critical.

First is short-form video dissemination. Compilation videos of classic works on Bilibili have garnered millions of views; Chinese original musicals should proactively release high-quality audiovisual content. However, the viral spread of snippets from "The Answer"—a song from *The Devotion of Suspect X*—also illustrates that short videos can only serve as an "appetizer"; the ultimate goal is to guide audiences into the theater.

Second, there is the exclusive release of music on streaming platforms. When the soundtracks are released simultaneously on Spotify and Apple Music, they form a series of steps, and the music leads the way, followed by the story, and finally, the production comes to life. Songs such as "Memory" from *Cats* and "I Dreamed a Dream" from *Les Misérables* show that high-quality musical numbers are, in themselves, a very effective way to promote works.

The third way is community-based work and KOL promotion. Create fan groups on Facebook, interact with the audience on Instagram, start cover-song challenges on TikTok, use local KOLs to promote the brand, and learn from the successful case of Korean musicals entering the Japanese market.

4.2. Sino-Foreign Co-Creation and Global Production Networks

Co-creation with foreigners is also a way to achieve "local adaptation" of cultural symbols. Online co-creation platforms allow people in different areas of the world to create works together.

Since 2017, the creative concept of the musical "Voices of the Silk Road" has been to introduce Chinese culture to the world through music. For the 2026 international tour workshop, the production invited some famous foreign creators to adapt their works according to the standards of

international aesthetics while retaining their original culture. The three main advantages of global co-creation are that new international ideas and knowledge will be introduced, talented overseas creators can adapt scripts locally, and an inclusive talent-nurturing environment can be established. Since 2019, the original Chinese-language musical incubation program has received a total of 488 submissions and more than ten have been selected for workshops. These works have together had 366 performances [9], fostering a healthy ecosystem of collaboration among creators, the industry, and audiences.

4.3. Policy Framework and Industry Ecosystem Support

Policy support should be provided by the central government. The "15th Five-Year Plan Outline" has pointed out that it is necessary to promote the deep integration of digital technology with culture and performing arts, and the "Three-Year Action Plan for the Revitalization of Theater (2026-2028)" has proposed 24 specific countermeasures. The National Arts Fund will give a grant of 700,000 - 1,000,000 yuan for the overseas dissemination project and offer top-level design support for international expression.

Breakthroughs have already been achieved in industry practice. "One Great Play" has established an overseas branch in South Korea, and the musical #0528 has been staged over 100 times on University Road in Seoul, boosting theater attendance in both Shanghai and Seoul. Since its premiere in 2022, *Panda* has been performed more than 1,400 times and has attracted over 300,000 spectators. In 2025, it was named "Best Foreign Language Musical Work" at the Daegu International Musical Festival and achieved success in IP management.

5. IP Awareness and Aesthetic Consensus in Cultural Export

5.1. From "Exporting Works" to "Establishing Brands"

Currently, the overseas dissemination of Chinese musicals still primarily relies on individual production tours, without the formation of a systematic cultural brand. To establish an international brand awareness, it is necessary to distill globally appealing themes from Chinese cultural resources and cultivate a core IP cluster through scientific planning and long-term investment [10].

The *Panda* IP has evolved from a top-tier domestic sensation to a global trend. The international touring version of *Confucius of the South* combines the melodies of the guqin, Jiangnan culture, and Mongolian dance to create a new form of musical theater embodying Eastern philosophical wisdom. At the 8th "World of Performing Arts—Shanghai International Musical Festival", Bae Seong-hyeok, Executive Chairman of the Daegu International Musical Festival in South Korea, noted that the global center of gravity for musicals is shifting from the U.K. and the U.S. to Asia, and that China possesses unique advantages. From copyright imports to cultural exports, and from going it alone to cross-sector collaboration, China's musical theater industry is undergoing a paradigm shift from "exporting individual works" to "establishing brands overseas".

5.2. Mechanisms for Forming Cross-Cultural Aesthetic Consensus

The end goal of cultural export is to make the world "feel" China and be in harmony with Chinese aesthetics. Cross-cultural aesthetic consensus is the shared sense of beauty and emotion that people from all walks of life in different cultures can feel.

Southern *Confucius* uses the "imported" musical theatre form to express the spirit of Confucianism, combining the guqin, Jiangnan culture and Mongolian dance to achieve a dialectical unity of form and content. Taiwanese original musical *The Three Sisters Who Admonish the World* combines Taiwanese funeral rites with the language of Western musical theatre, achieving success at Off-Broadway in New York and showing that cultural differences are not obstacles but also sources of attraction [11]. Chinese musicals must utilize digital and intelligent technologies to give contemporary expression to their most distinctive elements—such as traditional opera vocal styles, ethnic instruments, martial arts, and mythology—thereby transforming them into aesthetic experiences that audiences worldwide will actively seek out.

5.3. Educational Support and a Sustainable Ecosystem

Education will nurture the next generation of cultural ambassadors. In 2025, the Zhejiang Conservatory of Music set up the first musical theatre college in the country and began to carry out the model of "original production and open education"; the Communication University of China established a four-tier curriculum system focused on "fundamental performance skills, comprehensive training, practical production experience and industry application", and more than 40 universities across the country participated in the Second China Musical Theatre Higher Education Symposium to discuss future development directions. Only by continuously nurturing talent who are well-versed in Chinese culture and fluent in foreign languages, and who can also create art and apply technology, can cultural dissemination be sustained.

Therefore, technology is a way; culture is the foundation. Digital and intelligent technologies are promoting the spread of Chinese culture around the world; they are not just distributing the works of Chinese culture globally but also helping people in other countries experience, understand and be inspired by Chinese culture. In the next five to ten years, "dual performance" will become the unifying force, and immersive interaction will be the main direction for the development of musicals; thus, they will achieve a period of boundary-less dissemination by integrating virtual and real worlds, and online and offline spaces will interact mutually. Works such as *Southern Confucius*, *Baoyu*, *Kung Fu*, *Panda*, #0528 and *Nezha* have achieved multi-dimensional breakthroughs and collectively demonstrated the rise of original Chinese musicals. What has always ensured the life of a work is the creators' deep understanding of human nature, culture and art, and their sincere expression of these themes.

6. Conclusion

China's musical theater has already embarked on its journey toward the global stage. Driving innovation in global dissemination paradigms through digital and intelligent technologies, while prioritizing cultural outreach as a core

value, will provide lasting momentum for this endeavor. From digital stages to the Internet of Everything, from one-way distribution to two-way co-creation, and from the export of cultural products to the formation of cross-cultural aesthetic consensus, Chinese musicals are fully capable of forging a path of global development that embodies universal human values while retaining the distinctive character of Eastern aesthetics. This will not only be a process of bringing China's outstanding traditional culture to the world but also a process of revitalizing that culture through globalization in the era of new-quality productive forces and of building cross-cultural identity.

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