

Research on the Effect of Digital Intelligence Technology Empowering the Overseas Dissemination of Chinese Popular IP Short Videos in the Context of New Media

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Abstract.

This study, supported by the 2021–2025 Report on the International Communication Index of Chinese Cultural Symbols, focuses on the overseas dissemination of Chinese popular IP short videos empowered by new media digital intelligence technologies. It employs visualization analysis and case study methods to examine platform weight, the popularity of cultural symbol dissemination, and annual evolution characteristics, analyzing the dissemination effectiveness and existing shortcomings of three types of IP: digital cultural creation, National Trend intangible cultural heritage, and local cultural tourism. The study finds that TikTok and YouTube are the main dissemination platforms, and digital intelligence technologies have driven the dissemination from surface-level display to value transfer. However, there are still issues such as shallow application of technologies, lack of cultural translation, insufficient localization adaptation, and weak coordination in the dissemination ecosystem. This paper proposes optimization paths from the dimensions of technological innovation, digital translation of cultural connotations, and multi-entity ecological co-construction. The research results can provide empirical references for enhancing the overseas dissemination effectiveness of Chinese popular IP short videos and strengthening the international communication power of Chinese culture, contributing to the innovative development and cross-cultural communication of China's excellent traditional culture.

Keywords:

*new media
context; digital
intelligence
technology;
Chinese popular
IP*

1. Introduction

Against the backdrop of deep integration between cultural globalization and digital technology, cultural export has become a core pathway to demonstrate a country's cultural soft power and foster cultural confidence. At present, the development of the internet and digital technology has triggered a chain of changes in media communication. Short videos, with their advantages of high communication efficiency, strong interactivity and wide adaptability, have become the mainstream form of cross-cultural communication. Meanwhile, the iteration and upgrading of digital and intelligent technologies such as artificial intelligence, virtual production and intelligent translation have further reshaped the content production and audience interaction models of IP short videos, injecting new momentum into the overseas communication of popular Chinese IPs. The platform-based, algorithm-driven, socialized and fragmented communication characteristics of the new media context run through the entire process of production, distribution and interaction of IP short videos, providing a perspective for this study to examine how digital and intelligent technologies empower the overseas communication of popular Chinese IP short videos. Accordingly, grounded

in the new media context and based on analysis of the CSIC series of reports, this study focuses on the integrated communication practices of digital and intelligent technologies and popular IP short videos. It not only enriches research findings in the fields of digital and intelligent technology empowerment and cultural communication, but also provides practical references for the innovative global expansion of cultural symbols such as giant pandas, Hanfu (traditional Chinese clothing), and trendy toys, facilitating the international communication of Chinese culture and exchanges and mutual learning among civilizations.

2. The Current Situation of Chinese Popular IP Short Videos Going Overseas Empowered by Intelligent Digital Technology

Existing research primarily revolves around two major themes: short videos in the context of new media and technological empowerment of short videos.

1. Research on Short Videos in the New Media Context: Jin Chaowei (2017) summarized creative patterns using Egen Video as a case study. Wang Xiaoxu (2019) further analyzed the characteristics and communication advantages of short videos. Zhu Hongqun (2020) expanded research on dissemination and innovation by integrating historical background. Zhang Longyun (2024) extended the perspective to focus on the cultural export value of short videos.

2. Research on Technological Empowerment of Short Videos:** Chen Bo (2021) established a research framework based on platform affordance theory. Ji Li et al. (2022) explored technological empowerment application pathways using mainstream media samples. Lan Yanling et al. (2025) clarified key elements and pathways for overseas dissemination of digital-intelligent short videos through quantitative analysis. Xu Yan (2026) focused on the role of digital media technology in promoting short video creation. These studies provide crucial theoretical and practical foundations for this paper's investigation into the overseas dissemination effects of Chinese pop IP short videos empowered by digital-intelligent technologies in the new media context.

3. Visual Analysis of Overseas Dissemination of Chinese Popular IPs in Short Videos Empowered by Digital Intelligence Technology

3.1 Analysis of the Dynamic Evolution of Core Weights on Short Video Platforms

According to the 2021-2025 International Communication Index of Chinese Cultural Symbols, the weight distribution of short video platforms in the international dissemination system of Chinese cultural symbols exhibits dynamic evolution characteristics, while platform distribution reflects differentiated communication features. In the 2024 index model, TikTok accounted for 21% of the weight in secondary indicators, becoming the primary dissemination platform in the short video sector at the time, while YouTube held 18% of the weight, alongside X and Facebook, forming an overseas social media communication matrix. The 2025 index model further optimized the indicator system by incorporating YouTube and TikTok under the primary indicators of social media communication, with YouTube's weight increasing to 41% and TikTok's to 14%. These platform weight adjustments align closely with global user habits and content dissemination characteristics. In terms of platform positioning, TikTok leverages its lightweight short-form video advantage to deeply engage young audiences in Southeast Asia and Europe, while YouTube, with its blend of long and short-form content, excels in culturally immersive dissemination, creating complementary regional and demographic reach. In terms of communication effectiveness, dynamic platform weighting optimizes resource allocation, and the distinct characteristics of each platform broaden the overseas dissemination reach of Chinese popular IPs. However, challenges persist: insufficient platform presence in emerging markets, a lack of cross-platform synergy

mechanisms, and untapped integration of data and content resources, which collectively hinder the full realization of overall communication efficiency.

Table 3-1 Core Weights and Overall Proportions of Short Video Platforms (2023 to 2025)

year	Short Video Platform Core	Overall social media weight	Core dissemination metrics for short videos	Major short video platforms
2023	18	18	Watch/Interact	Facebook/Twitter/IG
2024	21	64	View count (14.8%) Share count (42.0%)	TikTok(21%)YouTube(18%)
2025	14	19	View count (26%) Share count (26%)	TikTok(14%)YouTube(41%)

3.2 The Popularity and Forms of Chinese Cultural Symbols on Short Video Platforms

From 2021 to 2025, the popularity of Chinese cultural symbols on short video platforms presents the dual characteristics of category differentiation and content upgrade, and the communication forms are constantly innovated with the development of digital intelligence technology, forming a multi-faceted and integrated communication form. Judging from the popularity of communication, ancient architectural art, classical mythology, and cultural symbols of national tide have maintained a high popularity on short video platforms, while classic symbols such as Beijing Axis and the Monkey King have been continuously broken by short videos, and the popularity of urban cultural tourism and Chinese food-oriented symbols has been rising year by year. Cultural tourism symbols in Chengdu, Chongqing and other cities, food symbols such as mala Tang and hot pot have become new hotspots in short video platforms, while the popularity of some traditional philosophical ideas and historical books and cultural symbols is relatively low. Digital intelligence technology promotes the continuous innovation of short video communication. Virtual production and AI clip generation not only realize the immersive presentation of cultural symbols, but also improve the creative efficiency. Interactive and dramatic short videos have become the mainstream of communication, and live broadcast and multi-platform linkage co-production have further expanded the communication boundary; Lightweight and interesting short video content has enhanced the overseas appeal of China cultural symbols, broadened the reach of the audience, and enhanced the Chinese cultural awareness of overseas people. However, there are still some shortcomings such as homogenization of communication forms, superficial visual display of content, and coordination of various communication forms, which makes it difficult to form a joint force of communication and maintain the popularity of cultural symbols for a long time.

3.3 Annual Evolution and Communication Characteristics of China Cultural Symbols in Short Video Communication

From 2021 to 2025, the development of China cultural symbols in short video communication showed clear stages, and the communication system was continuously improved with the development of digital intelligence technology and market demand, and gradually formed the characteristics of both times and professionalism. 2021-2022 is the initial development stage, and the content is mainly based on the basic display of cultural symbols, and the digital intelligence technology is only applied to basic editing and translation; In 2023, the efficiency of communication channels was prominent, technology penetrated into content creation, and the reach of communication was significantly expanded; In 2024, the content will be nationalized, and

technologies such as virtual production and AI-generated content will promote the innovation and transformation of cultural symbols, and the main body of communication will tend to be diversified; In 2025, it entered the stage of in-depth development, and fine short videos and micro-short dramas cooperated to spread. The AI model improved the accuracy of communication and realized the transformation from surface display to deep value transmission. The empowerment of digital intelligence technology has formed the core communication characteristics of technology-driven, content innovation and subject collaboration, taking into account both internationalization and localization, and improving the communication efficiency of cultural symbols. Generally speaking, the communication system continues to mature, and the integration of technology and practice has enhanced the overseas influence of Chinese cultural symbols, but there are still shortcomings: technology application and content creation are out of touch at some stages, technology empowerment is not fully transformed into innovation capability, and the regional adaptation of communication strategies is insufficient, and the communication effect of some emerging markets is not as expected.

Table 3-2 2021-2025 Annual Evolution of Chinese Cultural Symbols in Short Video Communication

Year	Focus on spreading cultural symbols	Number of symbols	Core propagation characteristics	Short Video Core Platform
2023	Chinese calligraphy, Chinese painting and traditional dance	3	Preliminary Application of Traditional Art-Based Social Media	Comprehensive social media (short video sprouting)
2024	Hanfu, Malatang/Hot Pot, Wukong/Three Kingdoms, Local Cultural Tourism	4	Guochao + Local Cultural Tourism Short Video Becomes the Main Force of Communication	TikTok/YouTube
2025	National Tide Intangible Heritage, Chinese Food Fashion, Cyber City, Tide Play IP, Fireworks Narrative	5	National Tide Intangible Heritage + Digital IP Digital Intelligence Technology Deep Empowerment	TikTok/YouTube Multi-Platform Synergy

4.Case Analysis of Digital Intelligence Technology Empowering Overseas Communication of Popular IP Short Videos in China

4.1 Digital Cultural IP: Integration and Innovation of Technology and Myth

With the full chain empowerment of digital intelligence technology, digital cultural IP has become an important carrier for the overseas dissemination of popular IP short videos in China, and the deep integration of technology and cultural creativity has promoted its cross-cultural widespread dissemination. According to the 2024 International Communication Index Report of Chinese Cultural Symbols, Black Myth: Wukong relies on virtual production technology to build a game scene with both oriental aesthetics and immersive experience. Related short videos form high traffic communication on YouTube, TikTok and other platforms, and the comprehensive

international communication index ranks first among the top ten IPs of digital culture of the year. Digital intelligence technology provides multi-dimensional support for this IP short video, AI editing realizes rapid picture processing, intelligent translation completes multilingual subtitle generation, and big data algorithm realizes accurate distribution based on user behavior, significantly improving communication efficiency. In 2025, Ne Zha 2 will continue the path of technology empowerment, generate content to enrich creative materials through AI, and create interactive short videos with the help of virtual digital people. The awareness of AI large models will reach full scores, and related content will continue to spread on overseas platforms. This kind of IP delivers classical mythology to overseas audiences in a concrete and youthful form, realizing the organic combination of cultural connotation and technical expression. However, there are still shortcomings in the communication process. Some contents excessively focus on visual presentation, insufficient cultural connotation mining, platform adaptability design to be optimized, and the degree of differentiation of content form is low, which restricts the improvement of overall communication efficiency.

Table 4-1 Comparison of Communication Status of Digital Cultural and Creative IP Cases

IP Name	Annual	Core Technology Application	Major overseas platforms	Communication Performance	problem
Black Myth: Goku	2024	Virtual production, AI editing, intelligent translation	YouTube, TikTok	Ranks first in the Comprehensive International Communication Index, leading in popularity across multiple platforms	Insufficient interpretation of cultural connotations, weak platform adaptability
Ne Zha 2	2025	AI-generated content, virtual digital humans, algorithmic distribution	TikTok, YouTube	AI large models have full recognition and stable cross-platform communication	Content creativity is becoming homogenized, and the integration of technology and culture is superficial
Little Goblin of Langlang Mountain	2025	Animation rendering, intelligent editing, multilingual adaptation	YouTube, Facebook	The online interaction index is relatively high, and the acceptance among young audiences is high.	Limited communication volume, insufficient global distribution capability

4.2 Guochao Intangible Cultural Heritage IP: Contemporary Expression of Traditional Crafts

Guochao intangible cultural heritage IPs leverage digital intelligence technology to achieve an innovative integration of tradition and modernity. Their short videos, when disseminated overseas, promote contemporary expression and international expansion of intangible cultural heritage, becoming an important part of the overseas spread of Chinese cultural symbols. Digital intelligence technology provides diverse support for the creation of intangible cultural heritage short videos. AI image restoration restores technical details, visual effects enhance presentation, and intelligent editing optimizes narrative pacing, making content such as Hanfu, martial arts, and traditional crafts more in line with overseas audience viewing habits. In 2024, Wing Chun-related IPs achieved wide dissemination through short video platforms, with action scenes closely integrated with modern narratives, gaining a high communication index on TikTok. In 2025, the communication of national trend intangible cultural heritage (ICH) IPs will be further upgraded, relying on big data analysis of overseas audience preferences to carry out customized short video creation, combined with cross-border live streaming to achieve real-time display and interaction of skills, enhancing audience engagement. This type of communication effectively breaks the limitations of time and space, promoting ICH to enter the international stage in a more approachable form. However, there are still obvious shortcomings, such as homogenized and uneven quality of communication content, insufficient exploration of historical connotations and spiritual value, uneven technological empowerment, lack of digital intelligence support for niche ICH IPs, and limited coverage and sustained influence in communication.

4.3 Local Cultural and Tourism IP: Global Display of City Image

In the context of new media, short videos have become an important channel for cultural tourism promotion due to their efficient dissemination and strong interactivity. Local cultural tourism IPs, using digital intelligence technology as a link, deeply integrate regional cultural characteristics with the short video format, achieving global display of local culture through overseas dissemination, and have become an important path for shaping the international image of Chinese cities. In 2024, the communication effectiveness of cultural tourism IPs in cities such as Shanghai, Harbin, and Tianshui is outstanding. Drone aerial photography showcases the city and natural landscapes, AI panoramic technology creates immersive content, and content such as Tianshui spicy hotpot and Harbin ice and snow landscapes achieve high popularity on the TikTok platform. The communication index of these cities ranks among the top in the international dissemination of local culture. In 2025, Chengdu, Chongqing, Tianjin and other cities will further deepen the application of digital intelligence technology, rely on international event-driven communication, accurately locate audiences through big data, and realize targeted content distribution. Chongqing uses digital technology to build a city image with the integration of traditional style and future texture, and the recognition of AI model is close to full mark, which has become a benchmark case. The IP communication of local cultural tourism effectively enhances the international popularity of the city and promotes the cross-cultural exchange of regional culture. However, there are still some shortcomings, such as the lack of systematic planning in some cities, scattered themes, incomplete integration of technology and culture, obvious gap in the level of technological empowerment among regions, and the ability of digital intelligence communication in small and medium-sized cities needs to be strengthened urgently.

Table 4-2 Comparison of IP Cases Dissemination in Local Cultural Tourism					
Representing the city	year	Core technology	Major overseas	Communication performance	exist problem
Harbin	2024	Aerial photography, intelligent editing and immersive production	TikTok、YouTube	The theme of ice and snow is hot, and the young audience covers a wide range.	The content is seasonal, and the ability of continuous communication is insufficient.
Tianshui	2024	Lightweight production and algorithm distribution of short video	TikTok、Facebook	Food travel is out of the circle, and social platforms are hot.	Cultural excavation is shallow, and the city image is single.
Chongqing	2025	Digital image, AI modeling, accurate push	TikTok、YouTube	AI big model has leading recognition and high recognition.	Homogenization of content, insufficient expression of regional culture depth
Chengdu	2025	Live broadcast of the event, VR display and multilingual communication	YouTube、TikTok	International events drive communication, and the comprehensive index leads.	Small and medium-sized cities have insufficient empowerment and concentrated communication resources.

5. Improve the optimization path of digital intelligence technology to empower the overseas communication effect of popular IP short videos in China

5.1 Technology empowerment: deepen the application and innovation of digital intelligence technology in the whole process.

The deep application and continuous innovation of digital intelligence technology is the basic support to improve the overseas communication efficiency of popular IP short videos in China. In the content production, we should expand the application scope of virtual production, AI-generated content, intelligent rendering and other technologies, optimize the visual presentation and narrative expression of cultural symbols, and enhance the appreciation and immersion of short videos. In the communication and distribution, we should improve the intelligent algorithm recommendation system, combine the communication rules of TikTok, YouTube and other platforms to achieve

accurate reach and efficient diffusion of content, and at the same time use multilingual intelligent translation and speech synthesis technology to reduce language barriers and improve the cross-regional adaptability of content. Communication subjects should rely on big data analysis and user behavior tracking technology to accurately identify the content preferences and viewing habits of audiences in different regions and circles overseas, provide data support for short video topic selection planning, content production and distribution, and improve the pertinence and effectiveness of communication. In addition, the main body of communication should strengthen technological innovation and platform collaboration, and promote the penetration of technology application from a single link to the whole process, covering the whole chain of content creation, review, distribution, interaction and resumption. Establish a communication data monitoring system, track short video playback volume, interaction volume, audience feedback and other indicators in real time, and adjust communication strategies in time. For niche intangible cultural heritage IP and local cultural tourism IP, the threshold for the use of digital intelligence technology should be lowered, lightweight and easy-to-operate intelligent creation tools should be developed, and the technical application capability of small and medium-sized entities should be enhanced. Through technology iteration and resource integration, we will bridge the gap in technology application between regions and subjects, promote the deep integration of digital intelligence technology and communication practice, and provide stable and efficient technical support for the overseas dissemination of popular IP short videos in China.

5.2 Content creation: Promoting digital translation and localization adaptation of IP cultural connotations

Digital translation and localization adaptation of cultural connotation are the keys to enhance the acceptance and recognition of China's popular IP short videos overseas. The creative subject should be based on the Chinese cultural symbol system, deeply excavate the spiritual core and value concepts of IP such as classical mythology, traditional intangible cultural heritage and local culture, and transform abstract cultural connotations into visual, scene-based and story-based short video content with the help of digital intelligence technology, so as to avoid the display of surface symbols and strengthen narrative depth and emotional resonance. Combining the cognitive habits of overseas audiences, we optimized the narrative structure and expression rhythm, and used international audio-visual language to enhance the cross-cultural understanding of content. For different types of IP, such as digital cultural creation, national trend intangible heritage, and local cultural tourism, we implemented differentiated content strategies to highlight the uniqueness and cultural recognition of IP. Localization adaptation needs to take into account cultural authenticity and regional adaptability, and adjust the presentation mode of short video content according to the cultural background, aesthetic preferences and social context of different countries and regions. Incorporate regional cultural elements in visual design, music collocation, plot setting and other aspects to enhance the intimacy and acceptance of content. Relying on big data analysis to refine the cultural themes that overseas audiences pay attention to frequently, and focusing on hot directions such as Spring Festival globalization, Chinese food fashion, urban cultural tourism, etc., we will create high-quality content with both Chinese cultural heritage and international communication potential. Strengthen content innovation, avoid homogeneous creation, promote the combination of traditional cultural elements with modern aesthetics and popular narrative, enhance the vitality and dissemination power of IP content, and realize the transformation of cultural communication from symbolic display to value transmission.

5.3 Ecological construction level: Creating a multi-agent collaborative digital and intelligent communication ecology

Building a digital and intelligent communication ecosystem with multi-party participation, collaboration and efficiency is an important guarantee for promoting the sustainable development of overseas communication of popular IP short videos in China. We should promote the diversified development of communication subjects, integrate cultural institutions, cultural and creative enterprises, short video platforms, creators and non-governmental forces, and form a collaborative pattern of government guidance, market leadership and social participation. Clarify the responsibilities of each entity, strengthen resource sharing and complementary advantages, enterprises are responsible for IP development and content production, platforms provide traffic support and technical services, creators enhance content creativity and communication vitality, and jointly expand overseas communication channels. Improve the online and offline linkage mechanism, rely on international exhibitions, sports events, cultural exchange activities and other offline scenes, combined with short video platforms for global synchronous communication, and expand the volume of communication. Strengthen international cooperation, establish cooperative relations with overseas media organizations, online celebrity Talent, and cultural and creative teams, carry out joint creation and agency communication, and enhance the localization operation capability of content. Optimize the allocation of communication resources, increase support for small and medium-sized cities' cultural tourism IP and minority non-legacy IP, and narrow the communication gap between regions and categories. Establish a long-term evaluation mechanism, combined with the relevant indicators of the international communication index of Chinese cultural symbols, comprehensively evaluate the communication effect from the dimensions of communication volume, audience recognition and cultural influence, and continuously optimize the communication strategy. Through ecological operation and systematic management, the overall efficiency of communication will be improved, which will help China's popular IP to achieve long-term communication in overseas markets.

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