Scientific and Social Research, 2026, Volume 8, Issue 10
https://bbwpublisher.com/journal/SSR
Online ISSN: 2981-9946
Print ISSN: 2661-4332

Research on Digital Technology Driving the Global Spread of Fine Chinese Traditional Culture

Wenyu Wu, Nuliman·Yimiti*

School of Marxism, Xinjiang Agricultural University, Urumqi 830046, Xinjiang, China

Author to whom correspondence should be addressed.

Copyright: © 2026 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: Digital technology is profoundly reshaping the global dissemination pattern of China's fine traditional culture. Based on an interdisciplinary perspective combining communication studies and digital humanities, this paper systematically examines the intrinsic mechanisms and practical pathways through which digital technology drives the global dissemination of traditional culture. The study suggests that the role of digital technology manifests in three progressive mechanisms. Technological breakthroughs lower the cost barriers to global dissemination, addressing the issue of cultural "accessibility"; shaping and enhancing sensory experiences increase the depth of cultural immersion, addressing the issue of cultural "perceptibility"; and translational reconstruction promotes the value resonance of cultural meanings, addressing the issue of cultural "comprehensibility." These three mechanisms are interlinked, collectively forming a dissemination logic from visibility to perceptibility and ultimately to resonance. On this basis, the paper proposes three practical pathways: resource digitization, narrative innovation, and platform matrix development. It reveals how digital narratives sediment abstract ideas into concrete stories and generate value recognition through dialogical differences, offering a reference with both theoretical depth and practical guidance for enhancing the communicative power and influence of Chinese civilization.

Keywords: Digital technology; Fine traditional Chinese culture; International communication

Online publication: November 11, 2026

1. Literature review and problem statement

The academic community has conducted multidimensional theoretical discussions on the global dissemination of outstanding traditional Chinese culture driven by digital technology, forming a relatively rich academic accumulation. Early research focused on the intersection of translation studies and communication studies, focusing on translating classical texts, cross-cultural adaptation of Xinda and Elegant standards, and the causes and avoidance of cultural discounting phenomena. As China's comprehensive

national strength enhancement and international communication capacity building have been elevated to national strategies, research topics have expanded significantly. At the macro level, scholars have engaged in extensive discussions on international communication patterns, national image construction, and competition for discourse power, forming research clusters with distinct policy responses such as "telling China's story well" and "strengthening international communication capacity building" [1]; At the meso level, research delves into specific cultural forms, conducting rich case studies on overseas practices in categories such as traditional Chinese medicine, martial arts, opera, film and television, online literature, and games [2]; At the micro level, audience research, effect evaluation, and cross-cultural psychological pathways are gradually gaining attention, and the "last mile" issue of communication is beginning to receive theoretical responses [3]. Existing research has laid a solid foundation for this paper, especially the operational implementation of core concepts such as "cultural discount," "hierarchical context," and "translation," which form theoretical resources for subsequent mechanism analysis.

Currently, human society is undergoing a communication revolution driven by digital technology. According to the International Telecommunication Union (ITU) report "2024 Facts and Data," the global internet user base will be about 5.5 billion in 2024, accounting for 68% of the world population (revised to 5.8 billion in 2025, accounting for 71%). Mobile internet and 5G networks are bringing the vast majority of the global population into the same real-time interconnected communication space [4]. Meanwhile, social media platforms have become the main channels for cultural content to flow across borders: at the beginning of 2025, there were about 5.24 billion social media user identity accounts globally, TikTok's advertising reached over 1.59 billion users, and short videos, live streaming, and algorithmic recommendations have profoundly reshaped the production, distribution, and consumption of cultural products. The explosive growth of generative AI further reinforces this trend—OpenAI announced in October 2025 that ChatGPT's weekly active users would surpass 800 million, rising from 100 million in November 2023 to 800 million in less than two years. Against this backdrop, the global dissemination of outstanding traditional Chinese culture has ushered in a historic opportunity. In 2024, the actual overseas sales revenue of Chinese self-developed games reached $18.557 billion, a year-on-year increase of 13.39%, marking five consecutive years of exceeding 100 billion yuan and setting new records. There are about 200 million active overseas users of Chinese online literature, covering more than 200 countries and regions worldwide. In 2024, the overseas market revenue of the online literature industry reached 4.815 billion yuan, a year-on-year increase of 10.68%; "Black Myth: Wukong" sold over 25 million copies worldwide, with about 30% coming from overseas players, and won the 2024 TGA "Best Action Game" and "Voice of the Player" awards. These facts show that digital technology is opening a new channel for Chinese culture to bypass traditional international communication barriers.

Based on the above research status and in line with the rapid development of digital humanities, this paper focuses on the global dissemination of outstanding traditional Chinese culture driven by digital technology, attempting to answer two progressive questions. First, at the internal mechanism level—by what mechanisms does digital technology drive the global dissemination of outstanding traditional Chinese culture? This paper proposes a three-layer mechanistic framework: technological barrier-breaking—form-giving and sensitivity—translation, reconstruction, each responding to the progressive demands of cultural accessibility, perceptibility, and communication, striving to break through the dual limitations of technological determinism and the linear view of communication. Second, at the practical path level—

how can the laws revealed by mechanisms be transformed into actionable practical solutions? This paper corresponds to three paths: resource digitization—narrative innovation—platform matrixization, achieving logical integration from mechanism analysis to countermeasure design.

2. The inner workings of how digital technology drives the global spread of China's fine traditional culture

Cultural resources do not automatically complete journeys across mountains and seas. How can digital technology loosen the barriers of language, space-time, and cognition? Following the process of global dissemination, its role can be seen in a three-layered progressive mechanism: using mobile internet and cloud platforms to achieve technological breakthroughs, reducing the cost and threshold of dissemination, so that Chinese culture can reach far; employing virtual reality and intelligent generation to shape and enhance sensory experiences, increasing the depth of immersion, so that overseas audiences can perceive it; and finally, through local contextualization to achieve translation and reconstruction, promoting value resonance, so that heterogeneous cultures can communicate successfully. From breaking barriers to enhancing perception, and from enhancing perception to fostering resonance, these three aspects are interconnected, forming the complete intrinsic logic of digital technology-driven global dissemination of Chinese culture.

2.1. Technological breakthrough: Lowering the cost barrier for global dissemination

The essence of breaking technological barriers lies in the profound compression of the spatiotemporal structure of dissemination. 5G/6G networks, content delivery networks (CDNs), and edge computing nodes decompose cultural content into data streams that can be accessed locally at global nodes, enabling high-definition images of the Dunhuang murals, millimeter-level 3D models of the Palace Museum's collections, and 8K recordings of Kunqu performances to surpass the limitations of physical exhibition space, exhibition duration, and geographical distance, thus achieving zero-latency, low-cost, and globally synchronous access [5]. This is the accessibility of technology and cost structures. The replication cost of cultural products tends toward zero, which transforms the traditionally heavy-asset dissemination—relying on physical transportation, venue rental, and offline exhibitions—into a low-cost dissemination that can be accessed infinitely, viewed asynchronously, and consumed in fragments. Consequently, the global supply curve of dissemination has been reshaped—long-tail content no longer exits the market due to sparse audiences; niche local operas, minor intangible cultural heritage skills, and translations of literature in marginal languages can now aggregate stable attention within specialized communities through short video clips, podcast columns, and online courses, forming a pattern in which abundant connections replace scarce channels. Furthermore, the platform account system, intelligent recommendations, and multilingual subtitles, built on this foundation, reduce the secondary barriers of language and cognition, allowing broad reach to extend beyond geographical terms to an initial decoding at the level of meaning. From March to April 2025, the top American influencer IShowSpeed completed a 17-day, over 50-hour live broadcast across eight cities in China, presenting scenes such as the Great Wall, the Forbidden City, the Shaolin Temple, and the night view of Chongqing to a global audience without any filters. Videos related to his trip in China exceeded 800 million views worldwide across major platforms, with the cumulative live viewership on YouTube alone surpassing 66 million, and contributing to more than a million new followers on his account. This case vividly demonstrates that when live streaming technology, 5G networks, and global platforms converge, the audience reach of a foreign young individual holding just a

smartphone can surpass that of a costly traditional foreign publicity campaign.

2.2. Form shaping and sensory enhancement: Deepening the immersive cultural experience

Cognition is not an abstract computation detached from the body, but is rooted in the perceptual-motor system and the environment. As Merleau-Ponty stated, the body is people's primary medium for accessing the world. The reason why technologies such as virtual reality, augmented reality, and digital twins can enhance cultural experiences is that they reconstruct the audience's bodily schema through multi-channel sensory feedback and spatialized interfaces, transforming viewing into immersive situational engagement. This aligns with the concept of non-mediated experience emphasized in presence theory. When technological interfaces become transparent, the audience's attention shifts from the medium itself to the cultural world presented by the medium, thereby entering a state of perceptual suspension. Narrative transportation theory further supplements the explanation of the dimension of meaning. Deep immersion is often accompanied by a high concentration of cognitive resources, where the audience's mental schemas are absorbed into the story world. At this point, values no longer enter through persuasion but are experientially acquired through emotional involvement and imaginative projection. Immersion is not a technological spectacle, but a transformation of cognitive channels: digital technology, by simulating bodily participation, bypasses the barriers of abstract concepts in cross-cultural understanding, allowing overseas audiences to directly engage with the Chinese cultural meaning system in an experience-before-proposition manner. This is precisely the foundational value of making the perceptible accessible and understandable. Multimodal narrative—composite coding of visuals, sound, action, and rhythm—can, to some extent, bypass sole reliance on language and text, using sensory experiences common to humans to reduce the cultural discount of foreign content. Li Ziqi's videos contain almost no dialogue and require no translation; relying solely on the aesthetic process of food preparation and the visual poetry of pastoral life, she has amassed over 20 million subscribers on YouTube. A single video on "New Year's Snacks" has reached 130 million views, and she has twice broken the Guinness World Record for "Most Subscribed Chinese YouTube Channel." The American magazine Wired referred to her as the "Queen of China's Idealized Rural Life." This case demonstrates that when cultural content is translated into a low-language-dependence form dominated by visuals and rhythm, language barriers and cultural discounts are significantly reduced, allowing the aesthetics of Eastern life to directly reach the emotional core of a global audience.

2.3. Translational reconstruction: Promoting the resonance of cultural significance

The core principles of Chinese culture—harmony in diversity, the unity of heaven and humanity, and a sense of family and nation—are essentially highly abstract value propositions, carrying profound historical context and ethical presuppositions. If they are directly translated into a foreign cultural context in a style intended for external promotion, they are highly likely to trigger cultural discount due to the misalignment between high-context and low-context communication, reducing them to ineffective symbolic gestures [6]. The power of digital storytelling lies in translating abstract ideas into concrete people, events, and things, so that value is experienced rather than told on emotional and experiential levels [7]. The theoretical essence of this process lies in the fusion of horizons in the sense of Gadamer. Audiences are not passive recipients of predefined meanings; rather, they engage in a negotiation between their own pre-understandings and the cultural other, with concrete narratives providing accessible interfaces for such negotiation. The micro-drama "Escape from the British Museum" serves as a typical example of this mechanism. The drama translates the grand historical issue

of returning looted cultural relics into the homecoming journey of an anthropomorphized Chinese thin-skin jade pot "Little Jade Pot" with a vine pattern—through the vivid monologue, "Family, I have been wandering outside for a long time. I got lost," it compresses the narrative of the nation into a few minutes of individual destiny. The drama has accumulated over 350 million views on Douyin across the entire network and received over 630 million readings on the main Weibo topic, and it even prompted the British Broadcasting Corporation (BBC) to report under the title "Chinese Hot Videos Boost Calls for the Return of Chinese Cultural Relics." From the perspective of communication theory, this translation achieves a triple operation of meaning. First, it activates the emotional public through a personification strategy, causing the audience to transfer their abstract loyalty to the state into an impulse to protect a "lost child," thereby giving macro-level issues a micro-level emotional carrier. Second, it resolves abstraction through specificity; values no longer appear in propositional form but are embedded within the causal chain of the story, allowing the transmission of meaning to prioritize experience over propositions. Third, it connects global public issues through a small entry point—while the return of cultural relics is inherently a shared concern in transnational cultural heritage governance, Chinese stories thus enter a global discourse space, and value resonance naturally occurs in the re-contextualization of the issue. This indicates that value resonance is not a direct output of abstract values, but a dynamic process of sedimentation, re-contextualization, and negotiation. Digital narratives first sediment ideas into concrete experiences, then embed these concrete experiences into universally human concerns, and ultimately regenerate meaning through the active interpretation of the audience (**Figure 1**).

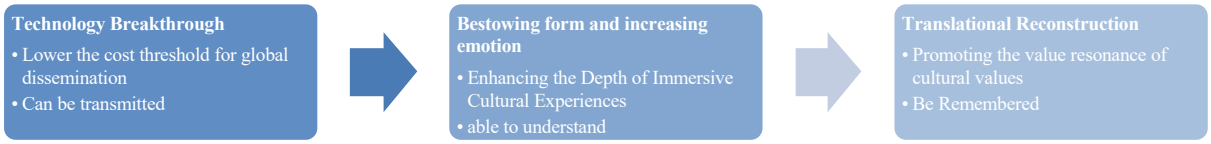


Figure 1. The intrinsic mechanism framework for driving the global dissemination of China's Fine traditional culture through digital technology

3. The practical path of digital technology driving the global dissemination of Chinese fine traditional culture

If breaking barriers, enhancing perception, and translating answers address how digital technology is possible, then resources, narratives, and platforms must answer how it can be realized. This article argues that people should solidify the content foundation of global communication through the digitization of resources, enabling culture to be substantial and transmissible; innovate narratives to create cultural touchpoints for a global audience, allowing content to resonate emotionally; and construct a diversified and collaborative communication pattern through a matrix of platforms, ensuring information can flow effectively [8]. Only through coordinated efforts can the complete chain of what to transmit, how to transmit, and through whom to transmit be realized, allowing the fine traditional Chinese culture to move from theoretical possibility to effective dissemination.

3.1. Resource digitization: Strengthening the content foundation for global communication

Resources are the source of global dissemination, and digitalization is the primary prerequisite to activate this source. Currently, China has accumulated a considerable foundation in resource digitalization. The

Dunhuang Research Academy has completed high-precision acquisition of 300 caves, with a total data volume of 500TB. The national cultural heritage protection industry standards it led in drafting, "Two-Dimensional Digital Acquisition and Processing of Grotto Temples" and "Three-Dimensional Digital Acquisition and Processing of Grotto Temples," will be implemented in July 2024, filling a domestic gap. The National Library of China's "Chinese Ancient Books Resource Database" integrates approximately 100,000 ancient book images collected from both domestic and overseas sources and provides free access to the global public. These achievements constitute the content base for global dissemination, but there are still gaps compared with international benchmarks. Europe has integrated 58 million digital resources from over 3,000 institutions and achieved cross-language search, while the U.S. DPLA aggregates over 52 million records. China's cultural resources far exceed those of Europe in quantity, yet the depth and openness of digital integration still need to catch up, which underscores the urgency of building a national cultural big data system. **Table 1** provides a comparison of representative digital cultural resource platforms in China and abroad. To promote the transformation of vast Chinese cultural resources from heritage into assets and from records into knowledge, three key measures should be implemented. First, conduct a comprehensive digital survey and collection of cultural resources. Organize efforts to systematically inventory rare ancient books, extant paintings and calligraphy, bronzes and ceramics, architectural sites, intangible cultural heritage crafts, and oral traditions, utilizing technologies such as high-definition imaging, 3D laser scanning, and multispectral acquisition to carry out emergency digitalization, thereby creating a sustainable and expandable digital patrimony of Chinese culture and turning dormant heritage into shareable content. Second, unify data standards and break down resource barriers. Establish standardized collection protocols, metadata standards, and interface specifications to promote interconnectivity and semantic searchability among digitized outcomes dispersed across museums, archives, and cultural institutions, resolutely avoiding redundant constructions and new data silos. Third, promote the upgrading of digital resources from mere records to knowledge. By leveraging knowledge graphs, linked data, and ontology modeling technologies, the information on the time period, craftsmanship, provenance, and ritual context behind cultural artifacts can be structured and interconnected, allowing each individual object to be integrated into a comprehensive cultural meaning network and providing overseas audiences with deep, exploratory, and educational content (**Table 1**).

Table 1. Comparison of representative digital cultural resource platforms at home and abroad

Platform	Initiator/Launch Time	Resource scale	Open Features
Europeana	European Union, 2008	Over 3,000 institutions and more than 58 million collections	Open licensing framework, API openness, multilingual search
DPLA	United States, 2013	Over 52 million records	Cross-Institutional Metadata Aggregation
'Digital Dunhuang' Resource Library	Dunhuang Academy, 2016 (2017 English edition)	30 high-quality complete cave images and panoramic tours, with over 6,500 open-source materials	Free global sharing, accessible in 78 countries, with over 24 million visits
The Palace Museum "Digital Cultural Relics Repository'	The Palace Museum	Over 100,000 cultural relics in high-definition images, at 50-megapixel resolution	Multidimensional Retrieval and AI Knowledge Graph Enhancement of Baidu Encyclopedia
Chinese Ancient Books Resource Database	National Library of China	Approximately 100,000 ancient book images	Integration of resources collected domestically and abroad, with free access

3.2. Narrative innovation: Creating cultural touchpoints for a global audience

The digitization of resources solves the issue of transmission, while narrative innovation determines whether culture can truly be understood. To this end, narrative innovation should proceed along three dimensions. First, the narrative focus should shift from the history of artifacts to the stories of people. Abandon grandiose exposition, and embed patriotism and ethical choices into individual life narratives, using emotion as a medium to connect with shared human experiences, so that abstract values naturally emerge within stories. Second, construct a narrative system adapted to different media forms. Align with the evolution of media towards short, frequent, fast, and deep content: use micro-dramas to deliver emotional highlights, documentaries to cultivate a depth of understanding, and animations or games to enable interactive participation, achieving a synergy between light accessibility and profound resonance, covering overseas audiences with varying levels of cognitive engagement. Third, promote a shift in discourse from monologue to dialogue. Implement a creator partnership program, attracting overseas sinologists, Chinese creators, and local opinion leaders to participate in content production, improving multilingual subtitle collaboration, bullet comment interaction, and secondary creation authorization mechanisms, enabling the target market audience to engage in the process of meaning negotiation, and enhancing cross-cultural penetration through an outsider's perspective [9].

3.3. Platform matrix: Building a diverse and collaborative communication framework

In an era where attention is dominated by algorithms, the scientific allocation of channels directly determines communication effectiveness. The goal of a platform matrix is to break through the coarse model of "single platform, single account, single language," establishing a communication pattern that is multi-dimensional, locally coordinated, and autonomously controllable. To this end, four measures should be actively implemented. First, implement differentiated platform arrangements. Conduct in-depth research on the user structures and algorithmic logic of various overseas platforms. Short video platforms should focus on lightweight content that can break through boundaries, streaming platforms on high-quality content accumulation, gaming and virtual communities on youth interaction, and academic platforms on reaching specialized audiences. Channels should be precisely matched according to content attributes, avoiding homogeneous mass distribution. Second, cultivate localized communication nodes. Through cooperation and authorization, content co-creation, and traffic support, overseas Chinese communities, local cultural bloggers, and foreign cultural bloggers as cultural translators should be activated, embedding communication outreach into the local networks of target societies, so that Chinese culture is integrated into the local media ecosystem. Third, build an independent and controllable platform for international communication. Coordinate the advancement of multilingual digital portals for Chinese culture and the construction of international aggregation platforms, gain control over user data and distribution, improve overseas public opinion monitoring and risk warning mechanisms, and prevent communication disruptions caused by algorithmic biases and geopolitical fluctuations [10]. Fourth, improve the data-driven collaborative scheduling mechanism. Integrate feedback data from all platforms, assess content performance and audience profiles in real time, dynamically allocate communication resources, and achieve a transformation and upgrade from experience-based distribution to precise incremental targeting.

4. Conclusion

Digital technology has opened up a brand-new landscape for the global dissemination of China's fine traditional culture. From breaking down technological barriers to lower the cost threshold of global communication, to enriching cultural experiences with heightened immersion, and further to driving value resonance through the reconstruction and re-articulation of cultural meaning, digital technology has profoundly reshaped the underlying logic by which Chinese culture reaches the world. Looking ahead, people should continue to consolidate the content foundation through resource digitization, create cultural touchpoints through narrative innovation, and build a multi-dimensional communication structure through platform matrixing. By harnessing the power of technology to activate cultural genes, people can enable China's fine traditional culture to achieve creative transformation and innovative development in a global context, genuinely transcend cultural differences, and win worldwide recognition—thereby contributing Chinese wisdom and Chinese solutions to building a community with a shared future for mankind.

Funding

This work was supported by the Xinjiang Project on the Integrated Construction of Ideological and Political Education in Primary, Secondary, and Higher Education (Grant No. 2024JBGSZD001), a key project of the Autonomous Region.

Disclosure statement

The authors declare no conflict of interest.

Author contributions

Nuliman·Yimiti conceived the idea of the study. Wenyu Wu analyzed the data and wrote the paper.

References

[1] Liu LL, Zhou Q, 2026, The value implications, realistic dilemmas and practical path of digital technology empowering the inheritance and development of fine traditional Chinese culture. Xuexi Luntan (Learning Forum), 2026(2): 113–120.

[2] Li Q, 2026, A Practical Study on the Integration of Fine Traditional Chinese Culture into College English Teaching Empowered by Digital-Intelligent Technologies. Journal of Humanities, Arts and Social Science, 10(3): 370–375.

[3] Ma Y, 2025, An Analysis of Generative Artificial Intelligence Aiding the Dissemination of Fine Traditional Chinese Culture. Media and Communication Research, 6(4): 69–77.

[4] China News Service, 2024, The International Telecommunication Union (ITU) Predicts that the Number of global internet Users will Reach 5.5 Billion by the End of 2024. https://www.chinanews.com.cn/gj/2024/11-28/10326939.shtml, ITU, https://www.itu.int/zh/mediacentre/Pages/PR-2025-11-17-Facts-and-Figures.aspx

[5] Cao J, Pan HZ, 2026, Strategies and Paths for the "Conscious Construction" of the International Communication of Fine Traditional Chinese Culture: An Analysis Based on Scenario-based Communication Practice Cases. Chinese Editor, 2026(6): 94–100.

[6] Li XL, 2023, The Predicament and Optimized Path of Fine Traditional Chinese Culture in the Process of International Communication. Journal of Sociology and Ethnology, 2023(5): 6. https://doi.org/10.23977/JSOCE.2023.050614

[7] Yao JX, 2026, The "Triple Model" of Chinese Cultural Communication from the Perspective of Globalization. Jiangxi Social Sciences, 46(2): 155–164 + 207 + 2.

[8] Lv CX, Wu F, 2026, Facing 2026: Multiple Transformations of International Communication Technology, Strategy, and Concepts. International Communication, 2026(1): 32–35.

[9] Wei Y, 2026, Research on Ideological and Political Teaching Reform of Intercultural Communication Course from the Perspective of Global Governance Talent Cultivation. World Journal of Education and Humanities, 8(3): 120–129.

[10] Cui H, 2026, Strategic Multilingualism and the International Communication of Contemporary Chinese Diplomatic Thought: Discourse power, Translation, and Global Governance Dialogue. Journal of Higher Education Research, 7(2): 188–197.

Publisher's note

Bio-Byword Scientific Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.