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The Impact of AIGC Short Videos on Viewers' Awareness of Intangible Cultural Heritage: A Focus on Generation Z Users

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Abstract: ***Background:*** In the context of rapid advancements in Artificial Intelligence Generated Content (AIGC) technology, AIGC short videos are transforming the landscape of cultural dissemination. As we faced the challenges of preserving intangible cultural heritage in the digital era,it is essential to explore the impact of AIGC, as a new mode of communication that influences the cultural cognition of Generation Z. This is a significant issue with both theoretical value and practical significance. ***Purpose:*** This study aims to investigate how the innovation, narrativity, and interactivity of AIGC short videos influence Generation Z's awareness on the Intangible Cultural Heritage (ICH). The goal is to bridge relevant theoretical gaps and provide practical guidance for digital communication of ICH. ***Methods:*** A mixed-methods approach combining theoretical and empirical research was employed. A theoretical framework was developed through a literature review. Three representative AIGC ICH short video cases were selected for in-depth analysis. Furthermore, a total of 335 valid questionnaires were collected and analyzed using factor analysis and multiple regression to test the research hypotheses. ***Conclusion:*** The study indicates that the innovation, narrativity, and interactivity of AIGC short videos all have a significant positive influence on the ICH awareness of Generation Z, with narrativity having the most notable impact. These findings provide both theoretical foundation and practical implications for the creation and dissemination strategies of AIGC-based cultural heritage content.

Keywords: AIGC short video; Intangible cultural heritage; Cultural awareness; Generation Z; Digital communication

1. Introduction

1.1 Research Background

With the rapid advancement of Artificial Intelligence-Generated Content (AIGC) technology, the methods of creating and disseminating content in the short video domain are continuously evolving. AIGC technology enhances the efficiency of video production and creative expression by generating and integrating multimodal content, including text, images, audio, and videos (Li et al., 2024). In particular, AIGC not only enables efficient content production but also exhibits high levels of innovation, narrative quality, and interactivity. This technology allows users to enjoy more immersive and personalized experiences (Chen et al., 2024), thereby contributing to its growing presence in the short video domain.

According to the 54th Statistical Report on Internet Development in China, released by the China Internet Network Information Center (CNNIC, 2024), nearly half of the new Internet users in the country during the first half of 2024 were Generation Z (Gen Z) adolescents aged 10–19 years old. Short videos, which account for 37.3%, have become the primary channel for this demographic's initial exposure to the Internet. This establishes a large potential user base for exploring AIGC short video platforms and

highlights the importance and practical significance of focusing on this group as a core research subject. Furthermore, this demographic has demonstrated a strong interest in novel and highly interactive content formats. This interest is driving the widespread dissemination and application of AIGC short videos on social platforms (Pentescu, 2023; Hua et al., 2024) and providing extensive opportunities for the contextual implementation of this technology.

In light of the rapid development of AIGC short videos, Intangible Cultural Heritage (ICH), as a vital component of Chinese culture, faces significant challenges in its preservation and promotion. Although digital technology has achieved significant progress in the conservation of cultural heritage (Liu, 2022), addressing how to overcome the limitations of traditional dissemination models and utilize advanced technologies like AIGC to enhance the awareness and influence of ICH among younger demographics remains an urgent issue to be explored. The vivid visual expression and cultural narrative capabilities inherent in AIGC short videos provide a promising new pathway for the modern dissemination of ICH (Namani et al., 2025; Xu et al., 2025), making their integration highly valuable in practice. However, research on how AIGC short videos affect the cognitive level of Gen Z users is still insufficient. Therefore, this study aims to investigate how AIGC short videos function in ICH dissemination, with a specific focus on their impact on the cultural cognition of Gen Z users, thereby aiming to fill the existing theoretical gap and provide practical references for digital cultural communication.

1.2 Research Purpose

This study aims to investigate the influence of AIGC short videos on the cognitive level of Gen Z users regarding ICH. By analyzing the characteristics of AIGC short videos, including innovativeness, narrative quality, and interactivity, this research aims to reveal how these features influence the attention and understanding of Gen Z users of ICH. The study intends to address the theoretical gap regarding Gen Z user behavior in the context of AIGC-enabled cultural communication, while providing practical guidance for the digital dissemination of ICH.

1.3 Research Content

This study focuses on AIGC short videos and their role in promoting intangible cultural heritage, targeting Gen Z users. The research primarily consists of three components: First, establishing a theoretical foundation by systematically reviewing the basic concepts and characteristics of AIGC short videos and their applications in cultural domains. Second, conducting in-depth case studies of three representative examples: "AI Animation: Dunhuang Flying Apsaras Dance," "AI Digital Human: 'Shanxi Daughter' Jin Yiyi," and "AI Video Generation: New Adaptations of Shadow Puppetry Stories," to summarize their content features and communication effectiveness. Finally, employing empirical research methods, through questionnaires and data analysis, to verify the actual impact of AIGC short videos on the awareness of intangible cultural heritage among Gen Z users.

1.4 Research Methods

This study adopts a mixed-methods approach combining theoretical and empirical research. On the theoretical level, it employs documentary research to systematize relevant concepts and theories concerning AIGC short videos, intangible cultural heritage, and Gen Z users, thereby building the research framework and hypotheses. On the practical side, case study analysis is applied to examine exemplary AIGC-generated short videos of intangible cultural heritage, focusing on their content characteristics and dissemination strategies. For the empirical part, questionnaire surveys are conducted to collect data on the impact of AIGC short videos on the cultural awareness of intangible

heritage among Gen Z users, followed by regression analysis to examine the relationships among key variables (as shown in Figure 1).

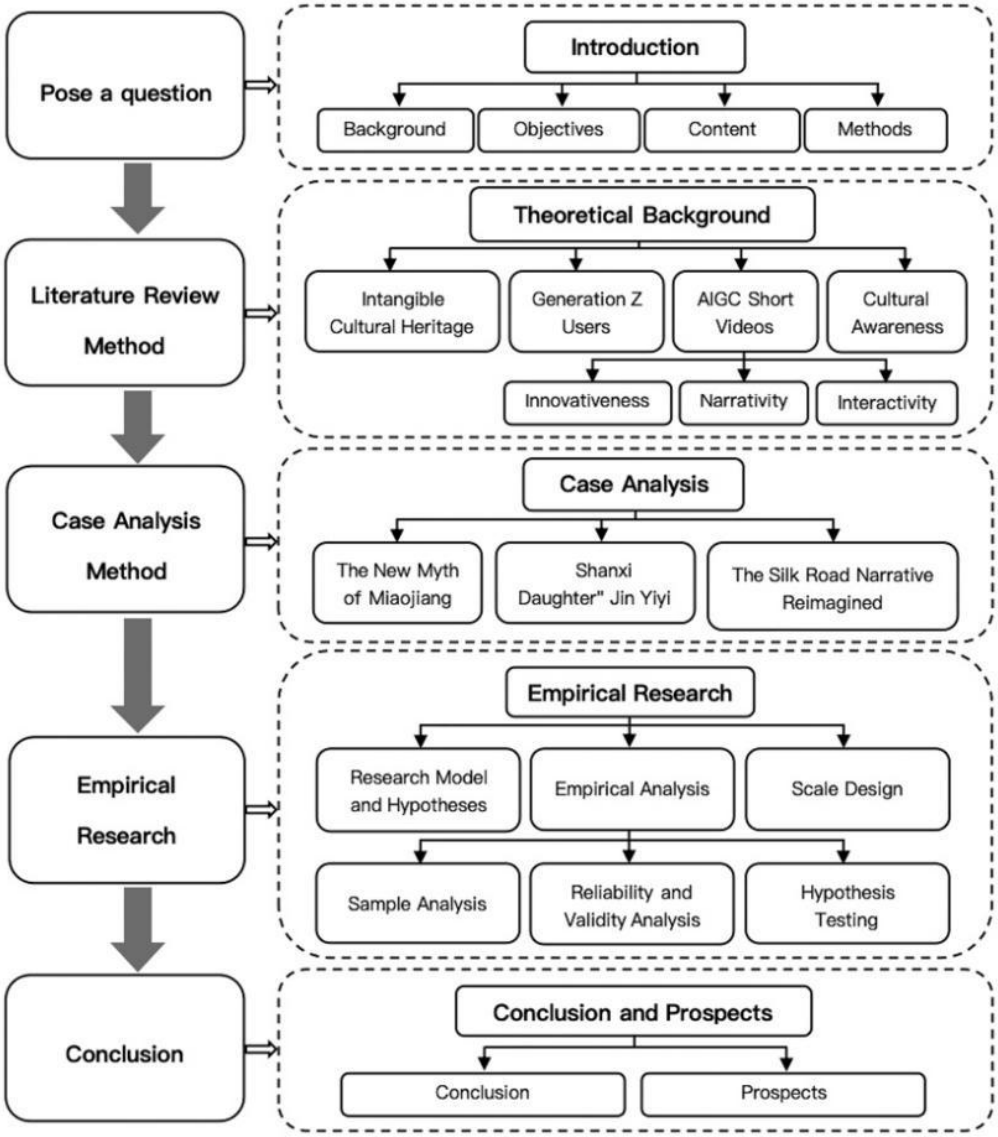

Figure 1: Frame diagram

2. Literature Review

2.1 Intangible Cultural Heritage

Intangible Cultural Heritage (ICH) refers to the various social practices, conceptual expressions, manifestations, knowledge, skills, as well as related instruments, objects, artifacts, and cultural spaces that communities, groups, and in some cases individuals recognize as part of their cultural heritage. Its fundamental continuity lies in the cultural identity and ongoing recreation embodied in intergenerational transmission. In recent years, the paradigm of ICH safeguarding has been shifting from a static model focused on documentation and archiving to a more dynamic strategy that utilizes digital technologies for effective dissemination and innovative application (Liu, 2022).

In this transformative process, digital technology plays a central role in preserving and restoring ICH. Technologies such as high-precision digital capture, 3D modeling, Virtual Reality (VR), and Augmented Reality (AR) have enabled the accurate preservation and contextual restoration of ICH elements in digital spaces. This allows

the public to fully engage with their cultural contexts, significantly enhancing the intuitiveness and interactivity of information dissemination (Chung, 2024; Cui et al., 2021). On the other hand, the integration of Artificial Intelligence (AI) technology is further advancing ICH safeguarding into an intelligent phase. AI not only assists in the innovative design and pattern generation of ICH elements but also creates personalized narratives and experiences by analyzing user preferences, thereby injecting new vitality and technological support into the contemporary expression and sustainable transmission of ICH (Li et al., 2025).

2.2 Generation Z Users

Generation Z (Gen Z), widely recognized as "digital natives" having grown up immersed in an environment saturated with digital technology (Du et al., 2022), exhibits distinctive and deeply rooted characteristics in their comprehension and use of technology. Empirical survey data reveal that a significant 55% of respondents can effectively differentiate between various types of intelligent agents, while 42.5% possess a foundational understanding of their core functionalities. Concerning engagement frequency, a substantial 75% of Gen Z users interact with AI-driven technologies at least once per day, with a notable 15% engaging multiple times daily. These statistics strongly indicate that intelligent technologies are not merely tools but are deeply woven into the fabric of their everyday routines (as shown in Figure 2).

This widespread technological reliance profoundly influences how they engage with culture. In media consumption, this group exhibits a structural dependence on social media and short-form video platforms as primary sources for information and entertainment. Their cultural preferences are increasingly characterized by a tendency towards fragmentation, a strong preference for visual media, and an orientation towards emotionally impactful content. Scholarly investigation confirms a marked transformation in how Gen Z engages with traditional culture; they favor content that skillfully integrates contemporary elements, delivers high visual impact, and features interactive components (Dong et al., 2024). A critical finding is that their willingness to accept and use AI-enabled services is predominantly influenced by the quality of emotional experience and hedonic motives, rather than just practical benefits (Vitezić & Perić, 2021).

Building upon these observed traits, it is essential to formulate communication strategies for ICH that are meticulously tailored to match the technological habits and emotional needs of Gen Z. The development and dissemination of content characterized by high production value, engaging visual narratives, meaningful interactive elements, and emotional connection are paramount to significantly improving the efficacy of ICH transmission within this crucial demographic group.

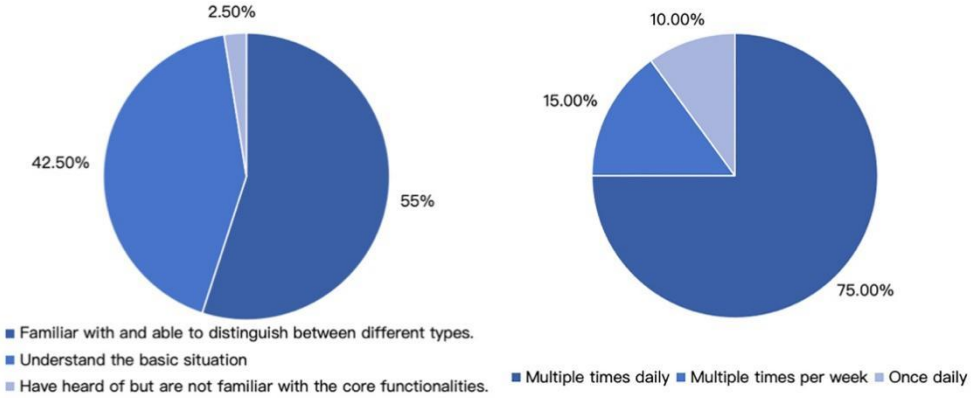

Figure 2: Gen Z's Awareness and Usage Frequency of Intelligent Agents

2.3 AIGC Short Videos

AIGC constitutes a broad category of content products—encompassing text, images, audio, and video —that are created automatically or semi-automatically through the application of advanced artificial intelligence technologies (Jin et al., 2025). AIGC short videos, a dynamic derivative built upon this technical foundation, further utilize AI to facilitate intelligent end-to-end video generation, significantly streamline and optimize editing workflows, and dramatically enhance overall expressive capacity and visual appeal. This genre of content offers several compelling advantages, including exceptional production efficiency, a high degree of customization and personalization, and strikingly prominent visual presentation (Ma et al., 2025). These inherent strengths collectively establish a solid technological foundation for its growing application in the domain of cultural dissemination.

From a market development perspective, the AIGC short video sector is currently experiencing a phase of accelerated growth and maturity. User adoption rates for AIGC-powered visual content generation tools are consistently increasing, highlighting the continually broadening scope of this technology's application within the content creation landscape(as shown in Figure 3). In parallel, the capital market continues to maintain a steady and reliable influx of investment into the sector. The sustained growth in investment scale reflects strong market belief in the long-term technological potential and commercial usefulness of AIGC applications (Qianzhan Industry Research Institute, 2025). This powerful, synergistic driver — combining bottom-up user adoption with top-down capital confidence — creates a supportive environment and provides the necessary practical conditions for innovative applications of AIGC short videos in cultural fields, notably including the preservation and promotion of ICH.

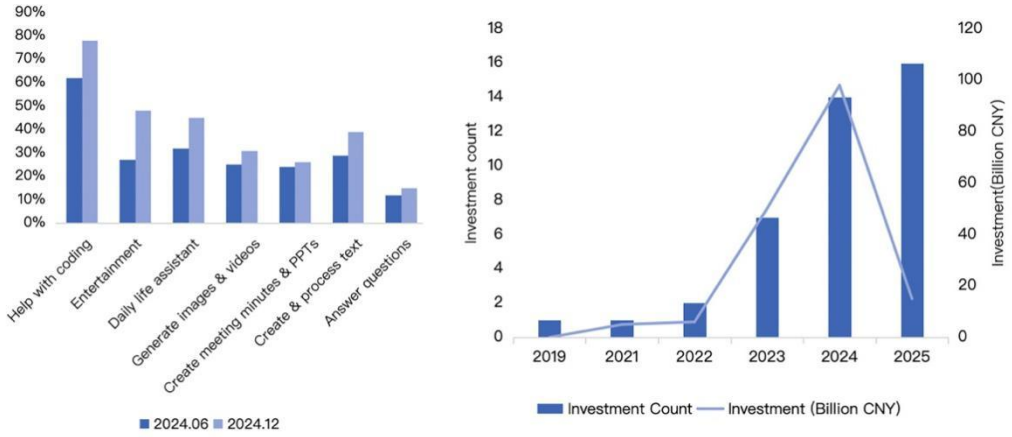

Figure 3: Survey on User Purposes for Using Generative AI Products in 2024
Overall Financing Situation in China's AI Short Video Sector (2019-2025)

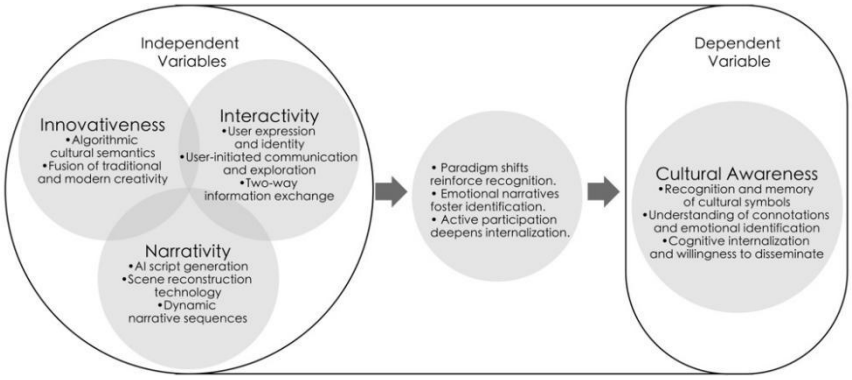

Figure 4: Relationship Model

1) Innovativeness

Drawing on the theoretical frameworks established by Hirschman (1980) and Roehrich (2004), innovation is fundamentally understood as a multidimensional concept that transcends mere technological advancement. Its core lies in the transformative reconstitution of prevailing content models, cultural symbol systems, and aesthetic mechanisms. Viewed from this theoretical perspective, the innovation demonstrated by AIGC short videos within the communicative sphere of ICH represents a fundamental shift in the creative paradigm, driven by artificial intelligence.

Specifically, algorithmic architectures such as Generative Adversarial Networks (GANs) and Diffusion Models can perform cross-modal analysis and representation learning on the deep cultural semantics inherent to ICH. This technological process facilitates the creative integration of traditional aesthetic elements with modern visual language (Li et al., 2025; Ma et al., 2025). However, this integration is much more than a simple combination of forms. It functions through semantic mapping and style transfer within latent computational spaces, thereby creating a novel audio-visual text that preserves cultural authenticity while expressing modern significance.

This process represents a significant shift in how we view ICH. Instead of being seen as a static status called "cultural heritage," it shifts to a dynamic role as a "living creative resource." This reconfiguration, facilitated by AIGC, allows ICH to be re-interpreted and experienced within modern digital contexts, thereby enhancing its relevance and accessibility for contemporary audiences, particularly younger generations, while preserving its essential cultural significance.

2) Narrativity

Based on the narrative engagement theory proposed by Busselle and Bilandzic (2009), audience immersion in stories mainly comes from the coherence of narrative logic and emotional connection. The application of AIGC short videos to promote ICH significantly enhances these two dimensions through the use of artificial intelligence (AI) technologies. AI can generate plot structures that integrate both continuity and dramatic tension based on the contextual knowledge of ICH. Leveraging AI script generation and scene reconstruction technologies, AIGC transforms static ICH knowledge into dynamic narrative sequences encompassing character development, conflict, and emotional climaxes (Cao et al., 2021), thereby substantially enhancing the narrative depth and emotional impact of the content.

Furthermore, this highly structured and emotionally impactful narrative approach aligns particularly well with the cognitive and receptive processes of young audiences. As demonstrated by Buijzen et al. (2010), when processing media content rich in cultural significance, young viewers develop cultural understanding and value recognition precisely through such carefully constructed narrative frameworks. Therefore, when Gen Z audiences engage with AIGC-generated ICH narratives, they are not only captivated by the plot but also enhance their understanding of the cultural meanings and historical importance of ICH through this experience. This marks a transition from simple viewing to cultural internalization, where passive watching transforms into active meaning-making and identity formation through emotionally compelling storytelling.

The technological ability of AIGC to dynamically reconstruct historical scenarios and simulate traditional craftsmanship processes provides a unique pathway for cultural transmission. By embedding abstract cultural values within concrete character stories and situational dilemmas, these narratives enable young audiences to connect with ICH on both intellectual and emotional levels, ultimately encouraging a more profound and lasting appreciation for cultural heritage that transcends superficial engagement.

3) Interactivity

Interactivity, serving as a fundamental metric for evaluating participatory engagement in media experiences, essentially encompasses the extent and depth of two-way information exchange between users and content (Liu, 2003). In the context of AIGC short videos, this interactivity manifests concretely through a paradigm shift: users are no longer passive recipients of content. Instead, they actively participate in and shape their final content experience and sense of immersion through a series of multidimensional behaviors. These include expressing appreciation and identification, engaging in reflective thinking, initiating social sharing and communication, and conducting in-depth exploration of cultural elements (Vorderer et al., 2004). This interactive process effectively transforms the dissemination model of ICH from a unidirectional knowledge transfer into a user-driven process of active discovery, thereby significantly enhancing the participatory engagement and immersion for Gen Z users (Du et al., 2022).

Empirical research shows that highly interactive ICH content not only deepens users' cognitive engagement and stimulates their emotional connection (Kim et al., 2020) but also significantly strengthens memory retention of the cultural material and increases the likelihood that young audiences will actively share and disseminate the content within their social networks (Cui et al., 2021). Consequently, the deep interactive model created by AIGC short videos successfully addresses the typical unidirectionality and didactic nature that is often seen in traditional ICH communication. By giving users the freedom to explore independently, AIGC technology provides a crucial pathway for the innovative dissemination and receptive acceptance of ICH in the digital age, ultimately promoting a more dynamic, engaging, and user-centered system for the transmission of cultural heritage.

2.4 Cultural Awareness

In communication and education studies, cognitive awareness refers to an individual's level of knowledge and depth of understanding regarding specific subjects, concepts, or cultures (Earley & Ang, 2003). Cultural communication is described as cultural awareness — a multidimensional psychological concept that includes not just recognition and memory but also understanding and emotional connection with cultural elements (Ng et al., 2009). It goes beyond superficial symbol recognition to emphasize a deeper understanding of historical context, intrinsic value, and current relevance (Julayanont et al., 2015).

AIGC short videos enhance users' visual memory and cultural symbol recognition through generated visual content (Wang et al., 2023), while emotional narratives foster resonance with cultural contexts, promoting understanding and identification. Interactive features further shift users from passive reception to active participation, deepening cognitive internalization (Hwang & Chen, 2023). Additionally, personalized recommendation systems ensure precise alignment between content and user interests, strengthening cultural identification (Zhu et al., 2023). Thus, AIGC short videos not only increase the visibility of ICH but also broaden the cognitive awareness of Gen Z through these multidimensional mechanisms, offering a practical pathway for cultural transmission and innovation (Guo et al., 2024).

3. Case Analysis

The case selection in this study is based on three dimensions: technology type, which includes various forms of AIGC such as AI animation, digital humans, and video generation; cultural connotation or cultural representativeness, which corresponds to ICH such as Dunhuang art, Shanxi regional culture, and shadow puppetry; and communication approach or communication effectiveness, meaning the cases must have generated extensive interaction among Gen Z on social media.

Based on these criteria, the study ultimately analyzes three cases: the integration of AI animation in Dunhuang Feitian dance, the AI digital human image creation of "Daughter of Shanxi" Jin Yiyi, and the reinterpretation of shadow puppetry stories using AI video generation technology(as shown in Table 1).

Table 1: Case Studies of AIGC Short Videos

Program Title	Core Content and Features	Source
AI-Generated Short Drama: "The New Myth of Miaojiang"	The series integrates AIGC into its plot through a "gamified" narrative, transforming knowledge into experience. This approach offers a new paradigm for bridging the generational gap and facilitating cultural transmission.	Source: Guizhou Provinc Department of Culture and Touris https://news.qq.com/rain/a/2024042 A03IAR00
AI Digital Human: "Shanxi Daughter" Jin Yiyi	It employs a hyper-realistic digital human as a cultural guide, enabling a first-person, immersive experience of Shanxi's regional culture and intangible cultural heritage. This creates a cross-temporal dialogue between ancient civilization and modern aesthetics.	Source: Shanxi Provincial Department of Culture and Tourism: http://xhslink.com/o/xk9Zjgi1Sm
AI Video Rendering: An Ancient Masterpiece: The Silk Road Narrative Reimagined	Leveraging AIGC technology, it transforms static cultural relics from Gansu into a dynamic visual epic. The technique of "consciousness flow transitioning" is used to construct a grand narrative, thereby evoking a sense of cultural pride.	Source: China News Network (Gansu): http://www.gs.chinanews.com.cn /news/2025/09-23/386062.shtml

3.1 AI-Generated Short Drama: "The New Myth of Miaojiang"

This case demonstrates an innovative approach to addressing contemporary challenges in cultural transmission. The film depicts a Miao silversmith grandfather who is proficient in modern technology, creating an immersive game based on Miao creation myths to engage his grandchild, who is overly absorbed in the digital world. Through interactive gameplay, the grandchild transitions from cultural alienation to a newfound identification with their ethnic heritage. The case highlights the profound value of AIGC technology in cultural transmission — not merely as a presentation tool, but as a narrative-driven interpretive method. Employing gamified storytelling transforms abstract cultural symbols into relatable dramatic plots, shifting knowledge transmission from one-way instruction to interactive engagement. Essentially, this AIGC short film functions as a socio-technical experiment. It narratively models real-world conflicts and their resolutions, not only effectively disseminating cultural knowledge but, more crucially, providing a pathway for digital natives to evolve from passive consumers into active contributors of cultural meaning. This model proposes a new paradigm for family education and exhibits significant potential as a catalyst for innovative cultural IP development(as shown in Figure 5).

Figure 5: Screenshots from the AI-Generated Short Drama: "The New Myth of Miaojiang"
Source: Guizhou Provincial Department of Culture and Tourism
https://news.qq.com/rain/a/20240425A03IAR00

3.2 AI Digital Human: "Shanxi Daughter" Jin Yiyi

This case features the highly realistic digital human "Jinyi" as a core medium for cultural dissemination. Using first-person storytelling, she guides audiences through

immersive experiences of Shanxi's regional culture and ICH, conveying themes of cultural roots and dialogue. Technologically, this is achieved through high-precision digital human creation, AI-powered scene integration and rendering, and stylized content generation, enabling systematic coordination between the virtual character and authentic cultural settings. By establishing an anthropomorphic digital representative, the project creates a new paradigm for cultural communication. The vlog-style narrative enhances audience presence and emotional connection, surpassing the limitations of traditional methods. Furthermore, through parasocial interaction and regional identity mechanisms, it develops a sustainable cultural IP model that effectively reduces the psychological distance between Gen Z and Shanxi's ICH(as shown in Figure 6).

Figure 6: Screenshots from the AI Digital Human: "Shanxi Daughter" Jin Yiyi
Source: Shanxi Provincial Department of Culture and Tourism: http://xhslink.com/o/xk9Zjgi1Sm

3.3 AI Video Rendering: An Ancient Masterpiece: The Silk Road Narrative Reimagined

This case employs generative AI to systematically reconstruct the visual history of Gansu's civilization from prehistoric times to the Dunhuang period. Through dynamic reinterpretation of cultural heritage symbols, it creatively transforms static relics into amazing visual representations. Utilizing narrative strategies like symbolic continuity and visual representations, the work establishes a multidimensional civilizational interaction via evolving patterns and integrated scenes, thereby transcending traditional storytelling. This image-driven nonlinear expression not only reinforces the holistic nature of cultural transmission but also stimulates cognitive engagement among Gen Z through its distinctive visual language(as shown in Figure 7). By shifting the communication model from one-way dissemination to interactive engagement, this approach demonstrates AIGC's methodological value and innovative potential in facilitating the contemporary transformation of traditional culture(as shown in Table 2).

Figure 7: Screenshots from the AI Video Rendering: An Ancient Masterpiece: The Silk Road Narrative Reimagined
Source: China News Network (Gansu): http://www.gs.chinanews.com.cn/news/2025/09-23/386062.shtml

Table 2: Comparative Analysis of AIGC-enabled Intangible Cultural Heritage Dissemination Cases

Program Title	Commonalities	Core Content and Features	Implications
AI-Generated Short Drama: "The New Myth of Miaojiang"	By leveraging AIGC to create dynamic interactive experiences, this approach fosters a shift among Gen Z from passive reception to active exploration, thereby deepening their engagement from mere	The Narrative and Gamification Path: Contextual immersion and role-playing facilitate cultural internalization	Narrative, Gamification, and Active Construction
AI Digital Human: "Shanxi Daughter" Jin Yiyi		The Persona and Social Path: Parasocial interaction and emotional companionship enhance identity formation	Digital human design, parasocial interaction, and the role of the first-person perspective.

AI Video Rendering: An Ancient Masterpiece: The Silk Road Narrative Reimagined	awareness to genuine identification with intangible cultural heritage.	The Visual and Artistic Path: Imagery evocation and aesthetic synesthesia guide civilizational dialogue	Visual appeal, nonlinear storytelling, and the balance between imagery and knowledge.

4. Empirical Research

4.1 Investigation Methods

This study employed a questionnaire survey method to systematically examine the impact of AIGC short video features on Gen Z's cultural awareness of ICH. Data collection was conducted through the professional online platform "Wenjuanxing." The research began with a comprehensive review of local and international literature on AIGC technology, short video communication, Gen Z user behavior, and cultural awareness. Based on this foundation and research objectives, three key attributes of AIGC short videos - innovativeness, narrativity, and interactivity - were identified as independent variables, with cultural awareness as the dependent variable, establishing the conceptual model and research hypotheses. The questionnaire was developed using validated scales and appropriately adapted for the specific context of AIGC-enabled ICH short videos. To enhance comprehension and response quality among Gen Z respondents, a pilot study was conducted with 20 target users, resulting in further refinements in wording and formatting based on their feedback. The final questionnaire was distributed through Gen Z-dominated channels, including social media platforms and campus forums, from March 3 to 23, 2025, yielding 342 responses. After excluding 7 invalid questionnaires, 335 valid responses were retained for analysis. Data were analyzed using Statistical Package for the Social Sciences (SPSS) to test hypotheses and examine causal relationships between variables, ensuring the scientific validity and reliability of the research findings.

4.2 Research Model and Hypothesis

Figure 8 illustrates the research model and its hypothesized relationships:

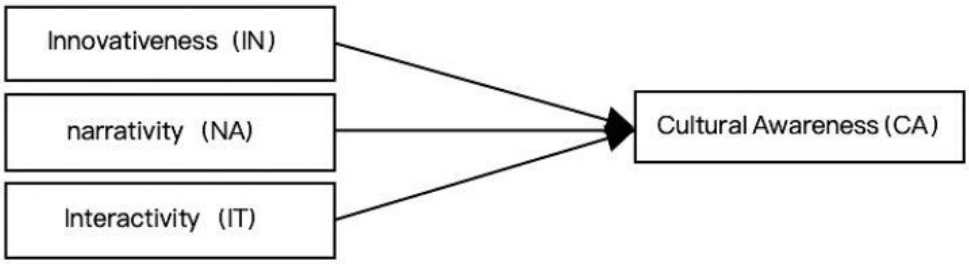

Figure 8: Research Model

H1: The innovativeness of AIGC short videos positively influences Gen Z's cultural awareness of ICH.

H2: The narrativity of AIGC short videos positively influences the cultural awareness of intangible cultural heritage among Gen Z users.

H3: The interactivity of AIGC short videos positively influences the cultural awareness of intangible cultural heritage among Gen Z users.

4.3 Gauge Design

This study investigates the influence of AIGC-generated short videos featuring intangible cultural heritage on the cultural awareness of Gen Z users. It focuses on four key variables: innovativeness, narrativity, interactivity, and cultural awareness. Measurement scales were adapted from established instruments and tailored to the

context of ICH short videos to ensure scientific validity and applicability. All items were measured using a five-point Likert scale (1 = "Strongly disagree", 5 = "Strongly agree"). Specifically, Innovativeness was measured with 5 items (IN1 – IN5), adapted from Hirschman (1980) and Roehrich (2004). Narrativity was assessed using 5 items (NA1–NA5), based on Busselle and Bilandzic (2009). Interactivity included 5 items (IT1–IT5), drawn from Liu (2003) and Vorderer et al. (2004). Cultural awareness was evaluated with 5 items (COG1–COG5), adapted from McGuire (1985) and Keller (1993) (as shown in Table 3).

Table 3: Comparative Analysis of AIGC-enabled Intangible Cultural Heritage Dissemination Cases

Construct	Code	Item	Adaptedfrom
Innovativeness	IN1	I find the presentation of this video novel and unique.	Hirschman(1980); Roehrich(2004)
	IN2	I find the techniques used in this video (e.g., visuals/special effects/voiceover) are innovative.	
	IN3	I find the content conception of this video distinctive.	
	IN4	I find this video successfully integrates technology with traditional culture.	
	IN5	I find this video creative and imaginative.	
Narrativity	NA1	I find the story logic of this video clear and easy to follow.	Busselle & Bilandzic(2009)
	NA2	I find the plot development of this video engaging, making me want to keep watching.	
	NA3	I find this video vividly showcases the charm/story of the intangible cultural heritage (ICH) item.	
	NA4	I find this video effectively conveys information, and I can understand its intended message.	
	NA5	I find this video enables me to clearly remember the core story or scene it depicted.	
Interactivity	IT1	This video makes me willing to like, comment on, or share it.	Liu(2003); Vorderer et al.(2004)
	IT2	This video prompts me to think about issues related to ICH.	
	IT3	This video stimulates my desire to discuss it with others.	
	IT4	This video makes me want to learn more about this specific ICH item.	
	IT5	This video evokes a strong sense of participation and immersion in me.	
Cultural Awareness	CA1	After watching, I remember the name/key characteristics of this ICH item.	McGuire (1985); Keller(1993)
	CA2	After watching, I understand the basic knowledge/production process of this ICH item.	
	CA3	After watching, I understand the historical origins/cultural value of this ICH item.	
	CA4	After watching, I want to search for more information about this ICH item.	
	CA5	After watching, I am willing to introduce and share the knowledge about this ICH item that I learned from the video with my friends.	

4.4 Empirical Analysis

1) Sample analysis

The sample was balanced in terms of gender (48.96% male, 51.05% female) (as shown in Table 4). Education levels were predominantly college or bachelor's degree (61.19%), followed by high school or vocational school (28.06%), and master's degree or higher (10.75%). In terms of short-video usage, 37.31% reported daily use of 1–2 hours, and 29.85% used 30 minutes to 1 hour per day. Regarding exposure to AIGC intangible cultural heritage content, 41.49% occasionally encountered it, 40.00% rarely saw it, 17.61% frequently viewed it, and only 0.90% had never been exposed to it. Overall, the sample profile is reasonable, with most users having 1–2 hours of short-video usage per day and some degree of prior exposure to AIGC heritage content.

Table 4: Demographic characteristics(N=335)

Category	Details	Frequency	Percentage(%)
Gender	Male	164	48.955
	Female	171	51.045
Education Level	High School/Vocational School or below	94	28.060
	Bachelor's Degree (current student or graduate)	205	61.194
	Master's Degree or higher	36	10.746
Daily Short Video Usage	Less than 30 minutes	15	4.478
	30 minutes-1 hour	100	29.851
	1-2 hours	125	37.313
	2-3 hours	67	20.000
	More than 3 hours	28	8.358
Exposure to AIGC ICH Short Videos	Frequently	59	17.612
	Occasionally	139	41.493
	Rarely	134	40.000
	Never	3	0.896
	Details	Frequency	Percentage(%)

2) Reliability and validity analysis

This study ensured measurement quality through reliability and validity tests. As shown in Table 5, the Cronbach's alpha coefficients for all variables exceeded 0.8, indicating good internal consistency of the scales. For validity testing, the KMO value was 0.961 (greater than 0.7), and Bartlett's test of sphericity yielded an approximate chi-square value of 3780.481 (degrees of freedom = 190, significance = 0.000), meeting the conditions for factor analysis. Using principal component analysis, four principal components with eigenvalues greater than 1 were extracted, cumulatively explaining 65.27% of the variance, which meets the standard. Furthermore, all item factor loadings exceeded 0.5, and all communalities were above 0.5. The results demonstrate that the scales meet the standards for both convergent and discriminant validity, confirming good measurement quality.

Table 5: Factor analysis results

Items	Composition				Percentage
	1	2	3	4	
Narrativity 1	0.613				0.565
Narrativity 2	0.670				0.686
Narrativity 3	0.722				0.649
Narrativity 4	0.705				0.712
Narrativity 5	0.714				0.713
Cultural Awareness 1		0.603			0.585
Cultural Awareness 2		0.724			0.697
Cultural Awareness 3		0.640			0.678
Cultural Awareness 4		0.736			0.724
Cultural Awareness 5		0.671			0.702
Interactivity 1			0.700		0.680
Interactivity 2			0.593		0.564
Interactivity 3			0.753		0.699
Interactivity 4			0.746		0.650

Interactivity 5			0.676		0.690
Innovativeness 1				0.740	0.637
Innovativeness 2				0.666	0.618
Innovativeness 3				0.698	0.630
Innovativeness 4				0.564	0.545
Innovativeness 5				0.704	0.632
Variance%	16.674%	16.503%	16.468%	15.623%	-
Cumulative percentage	16.674%	33.177%	49.646%	65.269%	-
Cronbach'alpha	0.835	0.873	0.863	0.881	
KMO=0.961					
Test of Sphericity of Bartlett Approximate Chi-Square to 3780.481					
Degree of freedom 190					
Significance = 0.000					

3) Hypothesis testing

The results of the research hypotheses are presented in Table 6.

Table 6: Study Hypothesis Verification Results

Serial number	Research hypothesis	Results
H1	The innovativeness of AIGC short videos positively influences the cultural awareness of intangible cultural heritage among Generation Z users.	Founded
H2	The narrativity of AIGC short videos positively influences the cultural awareness of intangible cultural heritage among Generation Z users.	Founded
H3	The interactivity of AIGC short videos positively influences the cultural awareness of intangible cultural heritage among Generation Z users.	Founded

To examine the effects of innovativeness, narrativity, and interactivity on cultural awareness, a multiple linear regression analysis was conducted (as shown in Table 7). The results indicated that the overall regression model was significant, $F(3, 331) = 208.73$, $p<0.001$, with strong explanatory power ($R^2=0.654$, Adjusted $R^2 = 0.651$). All three independent variables demonstrated significant positive predictive effects on cultural awareness. Among them, narrativity ($\beta=0.370$, $t=7.53$, $p=0.000$) contributed the most, followed by interactivity ($\beta=0.294$, $t=6.32$, $p=0.000$) and innovativeness ($\beta=0.251$, $t=5.41$, $p=0.000$). Collinearity diagnostics showed that the VIF values for all variables were below 2.31, with tolerance values all greater than 0.43, indicating no multicollinearity issues. Additionally, the Durbin-Watson statistic was 1.90, suggesting good independence of residuals.

In conclusion, the model results confirm that innovativeness, narrativity, and interactivity all significantly enhance cultural awareness, with narrativity exhibiting the most substantial effect.

Table 7: Linear Regression Analysis

Model	Unnormalized coefficient		Normalized coefficient	t	Significance	Collinearity statistics	
	B	Standard Error	Beta			Tolerance	VIF
(Constant)	0.117	0.108	-	1.074	0.283	-	-
Innovativeness	0.286	0.053	0.251	5.411	0.000	0.487	2.053

narrativity	0.382	0.051	0.370	7.530	0.000	0.432	2.314
Interactivity	0.309	0.049	0.294	6.320	0.000	0.482	2.077
R=0.809 R squared=0.654 Rsquared after adjustment=0.651							
F (3,331)=208.732 P<0.001							

5. Conclusion

5.1 Research Conclusion and Enlightenment

This study systematically examined how innovation, narrativity, and interactivity of AIGC short videos affect Gen Z's awareness of ICH by integrating theoretical frameworks with empirical analysis. The data analysis results indicate that innovation (β =0.251, p=0.000), narrativity (β=0.370, p=0.000), and interactivity (β=0.294, p=0.000) all exert significant positive effects on cultural awareness. The overall model demonstrates high explanatory power (R^2=0.654), suggesting that AIGC short videos can effectively enhance Gen Z's awareness of ICH through their multidimensional characteristics. In terms of practical implications, this study provides empirical evidence for digital dissemination strategies. It is recommended to strengthen narrative guidance in content design by constructing short video scripts with emotional tension and cultural logic, thereby enhancing the depth and impact of cultural dissemination. At the technical level, emphasis should be placed on the innovative integration of AI generation technology with intangible cultural heritage elements, utilizing digital humans, dynamic visual effects, and other means to elevate the audiovisual experience and achieve a modern expression of traditional aesthetics. Regarding interactive mechanisms, it is essential to expand user participation pathways by incorporating contextualized interactions, exploratory tasks, and other functions to stimulate active engagement, transforming users from passive recipients into active cultural co-creators. Furthermore, platforms can leverage algorithmic recommendations to achieve precise content distribution, enhancing the dissemination efficiency and reach of AIGC intangible cultural heritage short videos among Gen Z. Through these systematic strategies, AIGC short videos can not only effectively improve awareness of intangible cultural heritage but also contribute to fostering positive cultural identity among youth, adding sustainable digital vitality to the ongoing preservation of intangible cultural heritage.

5.2 Limitations and Future Research Directions

While this study has contributed to theoretical development and empirical validation, several limitations should be acknowledged, pointing to avenues for future research refinement and expansion. First, regarding sampling, constrained by data collection channels, participants were predominantly university students and urban youth. This limited scope fails to adequately represent Gen Z users across diverse geographical regions, educational backgrounds, and internet usage patterns, potentially compromising the generalizability of our findings. Future studies should broaden their sampling strategies to deliberately include populations from rural areas, individuals with lower educational attainment, and audiences from minority cultural backgrounds, thereby enhancing the representativeness and explanatory power of research outcomes. Second, in terms of variable selection, this research primarily focused on core dimensions of innovation, narrativity, and interactivity, while leaving other potential influencing factors, such as content credibility, cultural distance, and social influence, unexplored. Subsequent investigations could incorporate additional moderating or mediating variables to establish a more comprehensive theoretical framework, thereby providing deeper insights into the underlying mechanisms through which AIGC short videos influence cultural cognition. Methodologically, our cross-sectional survey design presents limitations in capturing the dynamic formation process of user cognition.

Future research could employ longitudinal tracking designs or experimental interventions to examine the long-term effects of AIGC content on cultural identity construction. Finally, given the continuous evolution of AIGC technologies, this study examined the currently predominant formats. Future research should investigate the integration of AIGC with emerging immersive technologies, such as VR/AR and the metaverse, to explore their potential for creating novel experiential and interactive paradigms in the dissemination of ICH. Such investigations would establish stronger theoretical foundations and practical pathways for the digital transformation and its transmission to younger generations.

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