

Media Enabled by Artificial Intelligence Generated Content as Public Pedagogy for Heritage Education

Qi Gang^{1,2*}, Mohd Sofi Ali², Zhou Haoran³

¹ Chongqing College of Humanities, Science & Technology, 400000, Hechuan District, Chongqing, China,

² Faculty of Education and Humanities, UNITAR International University, Malaysia

³ Jiangjin District Media Convergence Center, Chongqing, China

*Corresponding Author: mc240126268@student.unitar.my

Received: 13 February 2026 | Accepted: 30 March 2026 | Published: 20 April 2026

DOI: <https://doi.org/10.55057/ajress.2026.8.3.22>

Abstract: *In the era of algorithmic ubiquity and New Quality Productive Forces (NQPF), county-level media in China are undergoing radical ontological transformation. Breslin and Ren (2024) define NQPF as China's theoretical framework for shifting from resource-intensive growth to technology-driven high-quality development, yet the translation of productive efficiency into educational value requires specific mechanisms. This study argues that AIGC-enabled media addresses this gap by generating "Cognitive Surplus" liberating human creators from repetitive tasks (e.g., historical photo restoration) to focus on higher-order "meaning construction" and "curriculum design". This study argued that JMCC has constructed a 1+N+1 multimodal learning ecosystem that operationalizes United Nations Sustainable Development Goal (SDG) 11 by bridging the urban-rural digital divide. Through detailed analysis of the Jinsha Relics and Wonderful Series campaigns, it demonstrates how AIGC facilitates the transmission of Object Authenticity and the creation of Synthetic Authenticity, thereby fostering a dynamic, inter-generational cultural curriculum. However, this technological acceleration introduces critical pedagogical risks, including algorithmic homogeneity and digital suspension. This paper introduces a human-machine collaborative framework designed to ensure the digitalization of heritage functions as a robust mechanism for public education and rural revitalization.*

Keywords: New Quality Productive Forces; Public Pedagogy; AIGC, Cultural Memory; Media Convergence; SDG 11

1. Introduction

The digital transformation of global media ecosystems has triggered a profound crisis of relevance for traditional local media. In China, the County-level Convergence Media Center initiative, promulgated as a national strategy, aims to enhance state-grassroots communication. This initiative prioritizes the integration of media resources and the deployment of technical platforms. and the cultivation of professional talent to construct an integrated network for effective public dissemination of information and services. However, from an educational perspective, this last-mile connectivity extends beyond a mere transmission distance to encompass a critical gap in public pedagogy. It constitutes the interstitial space where abstract policies require translation into localized knowledge, where fading historical memories necessitate digital re-creation for native digital populations, and where the digital divide risks crystallizing into a learning divide (Deng & El Hag, 2024).

From a policy discourse perspective, China's NQPF emphasizes a shift toward innovation-driven and digitally enabled development within China's contemporary governance agenda (Breslin & Ren, 2024). For county-level media, this entails a significant dual mandate: modernizing communication methods while integrating novel technologies to enhance governance and cultural development functions. Crucially, NQPF's educational value materializes through the generation of "Cognitive Surplus": AIGC tools automate repetitive tasks (e.g., archival digitization) to liberate human creators for higher-order activities like curriculum design and meaning construction (Lai, Tian & Zhang, 2025). This dynamic establishes a "Phygital" conversion loop where digitally augmented content stimulates offline cultural participation, as evidenced by AIGC-driven platforms significantly boosting user engagement with heritage sites (Lai, Tian & Zhang, 2025). Specifically, this involves leveraging AIGC to revitalize cultural production while safeguarding local heritage against homogenizing pressures an objective directly aligned with SDG 11 (Antoninis et al., 2023), which advocates for intensified efforts to protect the world's cultural and natural heritage. UNESCO initiatives, including the 1974 Recommendation concerning Education for International Understanding, Co-operation and Peace and Education relating to Human Rights and Fundamental Freedoms and its subsequent revisions, underscore the critical role of education in fostering peace, international understanding, and sustainable development, thereby reinforcing this alignment (Antoninis et al., 2023).

This paper focuses on the JMCC in Chongqing. As a district marked by a large urban area, countryside dual structure, Jiangjin represents a critical microcosm of the challenges facing heritage education: how to engage a tech-savvy urban youth while serving an aging rural population; how to preserve the Red Culture of the Anti-Japanese War alongside the intangible heritage of agricultural life; and how to build a sustainable digital infrastructure that functions as a public good.

1.1 The Educational Imperative of the Last Mile

Traditionally, heritage education is the domain of museums and schools. However, scholars of public pedagogy contend that education is a pervasive social practice embedded within public spheres and cultural technologies (Antoninis et al., 2023). From this perspective, JMCC is not merely a broadcaster but a School Without Walls. Its curriculum is the local identity; its teachers are the journalists and AI agents; and its classroom is the mobile screen and the village loudspeaker.

The integration of AIGC with neural rendering has profoundly reshaped educational methodologies within this domain. AIGC technologies facilitate the dynamic recontextualization and restoration of cultural heritage, transforming static archival materials into interactive narratives that continuously evolve via processes of remixing and reinterpretation (Walter, 2024). However, this capability engenders critical epistemological inquiries: Does the algorithmic generation of culture engender a state of synthetic authenticity a hyperreal simulation that potentially displaces historical veracity? Furthermore, does over-reliance on data-driven recommendation systems foster algorithmic homogeneity, thereby diminishing the diversity of cultural expression accessible to the public?

2. Literature Review

2.1 New Quality Productive Forces: Digital Transformation as an Educational Catalyst

In recent Chinese policy discourse, NQPF has been positioned as a strategic pivot for high-quality, post-industrial development, championing innovation-driven and digitally enabled

transformation over resource-intensive growth (Breslin & Ren, 2024). This paradigm shift unfolds with particular clarity within China's county-level media sector. The educational ramifications of this transformation are profoundly significant, as NQPF catalyzes the generation of "Cognitive Surplus"—defined by extending Shirky's (2008) concept, this study contends that AIGC tools may redirect creative labor (e.g., archival digitization, basic content production), thereby liberating human creators for higher-order pedagogical pursuits like narrative construction and cultural interpretation.

This dynamic forge a "Phygital" conversion loop where digitally augmented content actively stimulates offline cultural engagement. Lai, Tian, and Zhang (2025) empirically demonstrate that AIGC-driven platforms markedly boost users' offline participation intentions by amplifying perceived creative and narrative benefits, transcending mere information provision. Yang et al. (2025) further substantiate this mechanism, revealing that human-AIGC collaboration significantly enhances learning flow and perceived effectiveness for students, recasting AIGC tools as cognitive partners rather than simple content generators. This evolution fundamentally redefines media's educational function, shifting from information dissemination towards facilitating dynamic knowledge co-creation—a shift critically vital for bridging the urban-rural digital divide within heritage education contexts.

2.2 Mediated Re-production of Cultural Memory

Assmann's (2011) foundational distinction between communicative memory and cultural memory establishes a clear divide between everyday memory transmission and the more enduring, institutionally mediated structures of cultural memory. Recent studies on digital cultural heritage have noted within digital contexts, scholars of digital heritage observe that digital media profoundly transform how cultural heritage is accessed and engaged with, enabling dynamic, participatory preservation and dissemination rather than mere static storage (Lian & Xie, 2024).

Benjamin & Jennings (2010) identify that users cultivate a "perceived authenticity in digitally mediated heritage experiences" towards algorithmically restored materials when transparent provenance metadata is provided, favoring aesthetic resonance over material indexicality. This phenomenon underscores the importance of maintaining object authenticity – defined by Walter (2024) as the intrinsic historical value of original artifacts – while leveraging AIGC to create synthetic authenticity that enhances accessibility. The Jinsha Relics campaign exemplifies this balance, where AI colorization of archival footage preserved historical integrity while making intangible heritage more engaging for digital natives (Walter, 2024). Such practices align with UNESCO's SDG 11 mandate by protecting cultural heritage through innovative digital preservation techniques (Antoninis et al., 2023).

2.3 Public Pedagogy and the School Without Walls

The concept of "School Without Walls" reimagines public pedagogy as a distributed system transcending traditional educational institutions. Sandlin, Schultz, and Burdick (2009) define public pedagogy as the educational processes occurring in non-formal settings, emphasizing media's role in shaping collective knowledge. JMCC's 1+N+1 infrastructure operationalizes this framework by integrating multiple platforms into a cohesive learning ecosystem, where the "Most Jiangjin" Super App functions as a connectivist learning environment rather than a conventional LMS (Yang et al., 2025). This architecture facilitates what Yan and Qianjun (2025) term "interdisciplinary knowledge convergence," enabling rural users to access heritage education through modalities aligned with their digital literacy levels – from village loudspeakers to immersive VR experiences.

A recent scholarship on AI literacy warns that without the cultivation of critical AI literacy, the reliance on generative models risks fostering algorithmic homogenization in educational content (Walter 2024). To mitigate this risk, JMCC's command center implements a human-machine collaborative curation process, where AI generates initial content drafts that human educators refine for cultural relevance and educational value. This hybrid approach aligns with Yan and Qianjun's (2025) findings that interdisciplinary AIGC integration yields superior learning outcomes compared to purely algorithmic or human-driven production. Ultimately, the "School Without Walls" framework demonstrates how NQPF can transform county-level media into resilient public pedagogy infrastructures, fostering intergenerational cultural transmission while addressing the urban-rural learning divide.

Public pedagogy, as conceptualized by Sandlin, Schultz, and Burdick (2009), encompasses the educational discourses and practices occurring outside formal schooling, recognizing culture itself as an inherently pedagogical force. Within this framework, institutions like museums, libraries, and media centers function not as neutral repositories but as active agents of knowledge transmission, shaping collective understanding through curated cultural narratives. JMCC's operational model embodies the "School Without Walls" paradigm, redefining public pedagogy through a distributed learning ecosystem that transcends traditional educational boundaries (Yang et al., 2025). Its curriculum integrates local history, agricultural vocational skills, and civic literacy, delivered through multimodal and informal pedagogical approaches that cater to diverse learning preferences—particularly critical for engaging rural populations often alienated by formal academic texts (Mazzanti et al., 2025).

The pedagogical affordances of JMCC's infrastructure lie in its adaptive design, which leverages AIGC tools to personalize content delivery while maintaining cultural authenticity. For instance, the platform's micro-learning modules on agricultural techniques employ AI-generated visual aids and specifically localized language adaptations, dramatically enhancing the learning flow and perceived learning effectiveness among rural learners compared to conventional print materials (Yang et al., 2025). This aligns with Walter's (2024) assertion that AI-enhanced education succeeds when it balances technological efficiency with human-centered curation—an approach JMCC operationalizes through its command center, where educators refine AI-generated content to ensure cultural relevance and educational rigor.

Furthermore, JMCC's public pedagogy model addresses the urban-rural digital divide by deploying multiple access points tailored to varying digital literacy levels. As observed in the "Wonderful Series" campaign, content is simultaneously distributed via high-immersion VR experiences for tech-savvy urban youth and simplified audio narratives through village loudspeakers for elderly rural populations. This stratified approach reflects Sandlin et al.'s (2009) emphasis on public pedagogy as a democratic process, ensuring heritage education reaches marginalized groups traditionally excluded from formal educational systems. Collectively, these practices position county-level media centers as pivotal infrastructure for operationalizing SDG 11, demonstrating how NQPF can transform media convergence into a tool for inclusive cultural preservation and public pedagogy (Antoninis et al., 2023).

3. Methodology

3.1 Qualitative Case Study

This study employs a qualitative case study methodology to examine the role of the JMCC as an educational mechanism for cultural heritage safeguarding. The case study approach is well-suited to investigating complex, contextually embedded phenomena situated at the intersection of technological systems, institutional practices, and educational outcomes. JMCC is treated as an instrumental case, facilitating an in-depth exploration of how convergence media infrastructures serve as platforms for informal learning and aesthetic education.

3.2 Case Selection and Context

JMCC was selected based on its advanced state of media convergence, systematic deployment of AIGC, and explicit commitment to local cultural heritage dissemination. Operating as a district-level convergence media center, JMCC functions at the nexus of grassroots governance, public service communication, and cultural education. This positioning renders it an ideal setting for examining the localized operationalization of SDG 11, which aims to strengthen efforts to protect and safeguard the world's cultural and natural heritage.

3.3 Data Collection Methods

3.3.1 Timeline

Data were collected through document analysis, covering a three-year period from 2023 to 2025. The data corpus included:

- Annual work summaries and policy documents issued by JMCC
- Technical architecture and system operation documentation
- Planning materials and published content from major media campaigns

These materials provided both institutional-level and operational-level insights into JMCC's media production logic, technological infrastructure, and educational orientation.

3.4 Technical Architecture Analysis: Hyper-Converged Infrastructure as Connectivist Learning Environment

A key analytical focus was JMCC's "1+N+1" hyper-converged infrastructure, which integrates content production, distribution, and feedback across multiple platforms. The system is built upon MSA, allowing modularized content generation, intelligent scheduling, and cross-platform dissemination. This technical architecture constructs a distributed cognitive network characterized as a Connectivist Learning Environment (Alam, 2023), where AIGC tools function as cognitive partners to help rural users overcome knowledge acquisition barriers. As it shown in Figure 1

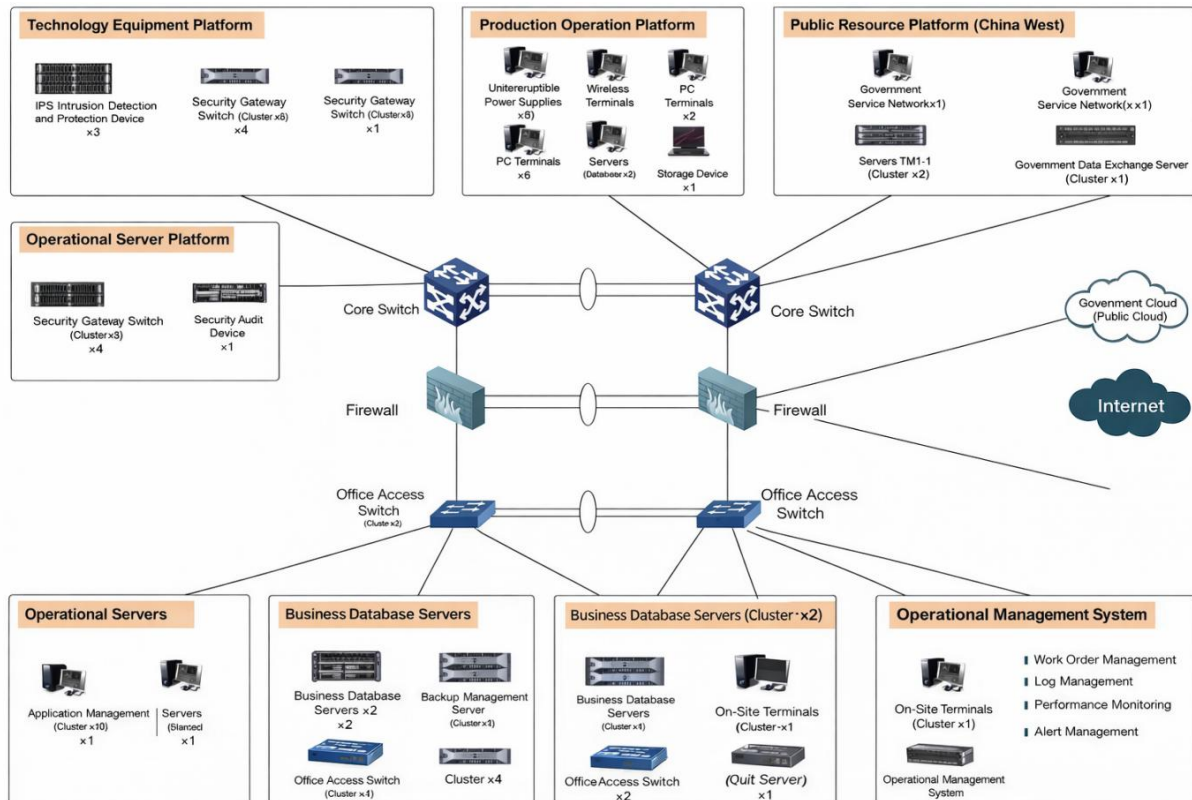


Figure 1: Jiangjin District Converged Media Center System Network Architecture Diagram

In this paper, the hyper-converged system is conceptualized as a district-level Connectivist Learning Environment, where media content functions as distributed knowledge nodes and audience engagement operates as dynamic cognitive interaction. This perspective enables an educational interpretation of convergence media technology as a distributed cognitive network where AIGC tools act as cognitive partners for rural users, beyond its traditional communicative function.

3.5 Case Campaign Selection

Two representative media campaigns were selected for in-depth qualitative analysis:

3.5.1 The Jinsha Relics Campaign

This campaign emphasizes historical memory and wartime cultural narratives, employing immersive storytelling and AIGC-assisted content reconstruction to facilitate public engagement with intangible heritage.

3.5.2 The Wonderful Series

This campaign focuses on aesthetic education and rural revitalization, highlighting local craftsmanship, landscapes, and everyday cultural practices through short-form videos and visual narratives.

These campaigns were chosen because they demonstrate contrasting yet complementary educational orientations: historical cognition and aesthetic cultivation.

3.6 Analytical Framework

The analysis integrates perspectives from media studies and educational theory, drawing on concepts of informal learning, aesthetic education, and cultural transmission. JMCC is positioned as a techno-pedagogical innovation model, where AIGC-enabled convergence media serves as a mediating mechanism between cultural heritage and public learning.

By aligning media practices with educational objectives, the framework situates JMCC within broader discussions on heritage safeguarding, digital pedagogy, and sustainable urban and rural development, directly corresponding to the goals of SDG 11.

4. Results

4.1 The 1+N+1 Matrix as a Multimodal Learning Environment

JMCC's technical architecture supports a distribution strategy known as the 1+N+1 Matrix. This is the interface through which the public engages with the curriculum. The Super App (Most Jiangjin) functions as a Connectivist Learning Environment, a distributed hub for knowledge connection, service access, and interactive civic engagement. N Channels include new media such as WeChat Douyin and Weibo for micro-learning and engagement, traditional media like TV, Radio and Newspaper are used for broadcast instruction, while rural tools (Village Loudspeakers) facilitate audio learning, bridging the digital divide. As Alam (2023) noted, this hyper-converged infrastructure constructs a distributed cognitive network where AIGC tools serve as cognitive partners, helping rural users overcome knowledge acquisition barriers. The Command Center is responsible for curriculum design and administration, coordinating topics, assigning reporters, and monitoring real-time feedback.

4.2 Jinsha Relics: Reconstructing the Cognitive Map of History

The Jinsha Relics: Tracing the Cultural Memory of the Anti-Japanese War project exemplifies the use of media for civic history education. The curriculum aimed to redefine the contours of the Jinsha Cultural Area and reinforce the collective memory of local resistance. The campaign utilized all-media progressive reporting, releasing content in waves that moved geographically through different historical sites. This spatial narrative enabled learners to craft a cognitive map of their region's historical tapestry. AI tools were used to colorize black-and-white archival footage and restore damaged photographs, creating an authentic representation of objects, enabling learners to perceive the past in its true form (Walter, 2024). The series achieved over 5 million views and was adopted by the national Learning Strong Country platform.

4.3 The Wonderful Series: Synthetic Authenticity and Aesthetic Education

While Jinsha Relics focused on historical truth, the Wonderful Series focused on the aesthetic re-evaluation of rural life. The curriculum aimed to challenge the negative perceptions associated with rural decline and re-frame the countryside as a breathtaking site brimming with beauty, rich culture, and boundless economic potential. AIGC tools were used for advanced color grading and time-folding editing effects, transforming mundane footage into hyper-real, dreamlike vistas that captivate the imagination. This crafted Synthetic Authenticity content, though artificially generated, resonates deeply with the authentic spirit and beauty of the culture (Wang & Adzharuddin, 2025). The series has amassed over 10 million views, with the Huangzhuang video reaching 100,000 views, reflecting its significant popularity and engagement among online audiences. one hour, translating into a surge in cultural tourism (Table 1).

Table 1: Comparison of Traditional vs. AIGC-Enabled Heritage Education Pedagogies

Feature	Traditional Heritage Media	AIGC-Enabled Public Pedagogy (JMCC)	Theoretical Implication
Content Production	Expert-generated, labor-intensive	AI-generated, automated, user-remixed	Shift from Authority to Polyphony
Authenticity	Indexical (focus on the original object)	Synthetic (focus on aesthetic experience)	Rise of "Synthetic Authenticity"
Distribution	Broadcast (One-to-Many)	Algorithmic (One-to-One / Many-to-Many)	Adaptive Learning / Echo Chambers
User Role	Passive Audience	Active Co-creator / Prompter	Participatory Culture

5. Discussion

5.1 JMCC as an SDG 11 Mechanism

The practice of JMCC demonstrates that county-level media can be a powerful mechanism for SDG 11 (Protect and Safeguard Cultural and Natural Heritage). The Unified Resource Platform acts as a digital ark, preserving dialect, oral history, and visual records. Through mediated reproduction, the center ensures that heritage is transmitted to the next generation in a language they understand. By lowering barriers to cultural content production, AIGC has the potential to amplify a wider range of voices and may contribute to enhanced perceptions of cultural participation and ownership within local heritage contexts (Jaokar, Arenal, & Feijóo, 2025).

5.2 The Challenge of Algorithmic Homogeneity

However, the reliance on AIGC and algorithmic distribution entails significant pedagogical risks. Algorithmic systems inherently favor content that maximizes engagement, often reinforcing dominant aesthetic norms while marginalizing less visible cultural expressions (Gillespie, 2014). As AIGC models are typically trained on vast, standardized datasets, their output exhibits increasing homogeneity, diminishing representational diversity. Within rural heritage contexts, this dynamic risks distorting authentic local expressions to conform to digitally prevalent visual styles, thereby undermining the safeguarding of cultural diversity championed in SDG 11. This goal explicitly prioritizes protecting diverse cultural expressions over their marketable appeal (William et al., 2015).

5.3 The Digital Suspension and the Second-Level Divide

While the 1+N+1 infrastructure is robust, a Digital Suspension remains a critical failure point. The Most Jiangjin App offers rich interactive learning, requires a smartphone, and high digital literacy. A significant portion of the rural population relies on the Rural Loudspeakers. This creates a Second-Level Digital Divide where the haves get high-fidelity, personalized AIGC heritage experiences, while the have-nots get basic audio broadcasts. The increasing stratification in education systems poses a significant threat to the principles of educational equity and inclusivity, which are essential for ensuring equal opportunities for all students (Deng & El Hag, 2024).

5.4 Authenticity in the Age of AI

The concept of Synthetic Authenticity challenges the ethical foundations of heritage education. Traditional heritage education prizes Indexical Authenticity (the real object), while AIGC creates Iconographic Authenticity (it looks real). When audiences struggle to differentiate between authentic historical photographs and those restored by AI, the educational integrity of the content is undermined. To uphold JMCC's reputation as a trusted educational institution, it is imperative to implement AI watermarking and ensure editorial transparency, as highlighted by Walter (2024). This approach aligns with the broader educational sector's emphasis on

transparency and ethical AI use. From an ethical perspective, the use of AI-generated content in cultural production raises critical questions regarding cultural ownership, authorship, and the redistribution of creative agency (Jaokar, Arenal, & Feijóo, 2025).

6. Conclusion

The Jiangjin District Convergence Media Center offers a pioneering model for the digital transformation of grassroots media. By leveraging a hyper-converged infrastructure and integrating AIGC, JMCC has evolved from a traditional broadcaster into a key contributor to public education and cultural heritage preservation, as evidenced by the successful implementation of the '1+N+1' model by media organizations such as the Baotou Daily News and the Yangtze Cloud platform. Through the reactivation of cultural memory at the Jinsha Relics Museum and innovative cultural events like the Jinsha Sun Festival, the center has re-established a connection with the public. Digital citizenry with its local roots. It has demonstrated that NQPF transcend mere economic metrics; through AIGC-driven "Cognitive Surplus", they liberate human creators from repetitive tasks to focus on higher-order meaning construction and curriculum design (Lai, Tian & Zhang, 2025). This establishes a "Phygital" conversion loop where digitally augmented content stimulates offline cultural participation, transforming data into meaningful insights, history into collective memory, and residents into well-informed citizens.

However, the sustainability of this model hinges on adeptly navigating the tensions inherent in the algorithmic age. To safeguard cultural diversity, it is imperative for the center to proactively counteract algorithmic uniformity by integrating multi-modal data, fostering cross-cultural understanding, and implementing dynamic weight adjustments and long-tail content exploration. and to address the challenges of digital suspension in grassroots governance, it is essential to implement strategies that enhance data security, improve public acceptance of digital technologies, and ensure equitable resource allocation. To ensure educational equity, the future should focus on a Human-Machine Collaborative Pedagogy that leverages technology to amplify the authentic voice of the community, rather than replace human culture. This approach is supported by global educational equity analyses, which reveal disparities in educational resources and opportunities, and the need for innovative strategies to bridge these gaps. In this vein, the innovative strategies employed by Jiangjin's district media serve as a replicable blueprint for how local media can act as a soft infrastructure for sustainable development.

7. Future research and Limitation

7.1 Limitations

This study exhibits several limitations that warrant acknowledgment. First, the research context was primarily confined to the JMCC, limiting the generalizability of findings to other county-level media ecosystems with distinct resource endowments and cultural contexts (Yang et al., 2025). Second, the assessment of AIGC's educational impact relied heavily on quantitative user engagement metrics, with insufficient qualitative exploration of how different demographic groups (e.g., rural elderly vs. urban youth) perceive synthetic authenticity in heritage content (Wang & Adzharuddin, 2025). Third, the 1+N+1 multimodal learning ecosystem model requires longitudinal validation, as the current cross-sectional design cannot capture long-term knowledge retention or behavioral changes resulting from phygital heritage education interventions (Lai, Tian & Zhang, 2025).

7.2 Future Research Directions

Future scholarships should address these limitations through three strategic avenues. First, comparative studies across diverse county-level media centers (e.g., economically developed vs. underdeveloped regions) could identify contextual moderators influencing NQPF-driven educational transformation (Breslin & Ren, 2024). Second, mixed-methods research incorporating eye-tracking technology and semi-structured interviews would advance understanding of how cognitive surplus is actually deployed by creators during meaning-construction tasks (Yang et al., 2025). Third, longitudinal studies spanning 12–24 months are needed to evaluate the sustained impact of AIGC tools on intergenerational cultural transmission, particularly focusing on SDG 11 alignment in rural revitalization contexts (Antoninis et al., 2023). Additionally, exploring the ethical implications of algorithmic curation in heritage education—such as potential bias amplification in synthetic content generation—represents a critical research frontier (Walter, 2024).

Acknowledgement

The authors would like to express their sincere gratitude to the Jiangjin District Convergence Media Center for providing access to their technical documentation and annual work summaries. We also thank the faculty members at the Chongqing College of Humanities, Science & Technology, for their valuable feedback on earlier drafts of this paper. This research was supported by the Research Base for Cultural Inheritance and Innovation in Rural Revitalization.

Conflict of Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

- Assmann, J. (2011). *Cultural memory and early civilization: Writing, remembrance, and political imagination*. Cambridge University Press.
- Alam, A. (2023). Connectivism learning theory and connectivist approach in teaching and learning: a review of literature. *Bhartiyam International Journal of Education & Research*, 12(2), 1-15.
- Antoninis, M., Alcott, B., Al Hadheri, S., April, D., Fouad Barakat, B., Barrios Rivera, M., ... & Weill, E. (2023). *Global Education Monitoring Report 2023: Technology in education: A tool on whose terms?*
- Benjamin, W., & Jennings, M. W. (2010). The work of art in the age of its technological reproducibility [first version]. *Grey room*, (39), 11-37.
- Breslin, S., & Xinyuan, R. (2024). What's new about China's new quality productive forces?. *EuroHub4Sino*, 2024(6), 1-13.
- Deng, X., & El Hag, S. (2024). Digital Inequality and Two Levels of the Digital Divide in Online Learning: A Mixed Methods Study of Underserved College Students. *Journal of Information Systems Education*, 35(3), 377-389. <https://doi.org/10.62273/SSIF6302>
- Gillespie, T. (2014). The relevance of algorithms. *Media technologies: Essays on communication, materiality, and society*, 167(2014), 167.
- Jaokar, A., Arenal, A., & Feijóo, C. (2025). Ethical challenges of AI in the creative industries from a cultural ownership perspective.
- Lai, S., Tian, Y. & Zhang, Q. The impact of AI-generated technologies-driven digital cultural heritage platforms on users' offline cultural participation intentions. *npj Herit. Sci.* 13,

- 574 (2025). <https://doi.org/10.1038/s40494-025-02148-1>
- Lian, Y., & Xie, J. (2024). The evolution of digital cultural heritage research: Identifying key trends, hotspots, and challenges through bibliometric analysis. *Sustainability*, 16(16), 7125.
- Mazzanti, P., Ferracani, A., Bertini, M., & Principi, F. (2025). Reshaping museum experiences with AI: The ReInHerit Toolkit. *Heritage*, 8(7), 277. <https://doi.org/10.3390/heritage8070277>
- Sandlin, J. A., Schultz, B. D., & Burdick, J. (Eds.). (2009). *Handbook of public pedagogy*. Routledge.
- Shirky, C. (2008). *Here comes everybody: The power of organizing without organizations*. Penguin.
- Walter, Y. Embracing the future of Artificial Intelligence in the classroom: the relevance of AI literacy, prompt engineering, and critical thinking in modern education. *Int J Educ Technol High Educ* 21, 15 (2024). <https://doi.org/10.1186/s41239-024-00448-3>
- Wang, C., & Adzharuddin, N. A. (2025). Synthetic Authenticity and Audience Trust in AI-Generated Intangible Cultural Heritage: A Qualitative Multimodal Study of Chinese Digital Heritage Platforms. *E- Journal of Media and Society*, 8(2), 1–10. <https://doi.org/10.24191/ejoms.v8i2.6894>
- William Colglazier „Sustainable development agenda: 2030. *Science* 349, 1048-1050(2015). DOI:10.1126/science.aad2333
- Yang W, Lu Z, Li Z, Cui Y, Dai L, Li Y, Ma X, Zhu H (2025), "The impact of human-AIGC tools collaboration on the learning effect of college students: a key factor for future education?". *Kybernetes*, Vol. 54 No. 15 pp. 7746–7763, doi: <https://doi.org/10.1108/K-03-2024-0613>
- Yan, Z., Qianjun, T. Integrating AI-generated content tools in higher education: a comparative analysis of interdisciplinary learning outcomes. *Sci Rep* 15, 25802 (2025). <https://doi.org/10.1038/s41598-025-10941-y>