


# From Tradition to Visualization: Using Digital Media Art to Reinterpret Intangible Cultural Heritage in China

Guoli Zhou  <sup>1\*</sup>

<sup>1</sup> Senior Engineer, School of Media and Communication, Mianyang Teachers' College, Mianyang, China

\* **Corresponding Author:** [zgl12345678902025@163.com](mailto:zgl12345678902025@163.com)

**Citation:** Zhou G.L. (2026). From tradition to visualization: Using digital media art to reinterpret intangible cultural heritage in china. *Herança*, 9(2), 59-76. <https://doi.org/10.52152/heranca.v9i2/1245>

## ARTICLE INFO

Received: 26 Jan 2026

Accepted: 17 Jun 2026

## ABSTRACT

The digital media art has integrated with the intangible cultural heritage (ICH) of China due to technological progress and heightened cultural awareness. Virtual reality (VR), interactive visualization, and animation are some digital tools that are being applied to preserve and creatively reinterpret traditional cultural forms. This paper will investigate how digital media art can be used to preserve and redefine the ICH of China based on existing literature. It looks at how digital technologies have helped the maintenance, reinterpretation, and reformulation of cultural heritage. It was a qualitative research design with the use of a Systematic Literature Review (SLR) to review articles written between 2020 and 2025. Databases such as JSTOR, Elsevier, and SpringerLink were used, and the search was conducted using Boolean operators to narrow results. A search was narrowed down to 12 relevant studies based on inclusion and exclusion criteria. Digital media technologies (VR, AI, 3D visualization) were mentioned as some of the most important means of restoring and reshaping the ICH in China. They increase access and interactivity and cultural continuity, especially among the young generation. The digital technologies also contribute to the creativity of cultural reinterpretation and provide international channels to the ICH. This paper demonstrates that digital media art has a critical role in the preservation and novelty of the Chinese intangible cultural heritage, and it has the potential to enhance cultural interactions and access more and more, and to ensure the cultural traditions are relevant in the contemporary setting.

**Keywords:** Digital media; Cultural heritage; China; Intangible.

## INTRODUCTION

The convergence of digital media art and intangible cultural heritage (ICH) has increased in China with the growth of technology and cultural awareness. Digital media art is an active tool to keep and remake the traditional culture through the incorporation of such tools as virtual reality (VR), animation, and interactive visualization. It also encourages participatory experience and redefines heritage preservation based on passive conservation to active, creative, and experiential regeneration (J. Li, 2025).

The technological integration of ICH in China is an outcome of the goals of the 14th Five-Year Plan, which highlighted developing new technologies to contribute to the prominence of cultural diffusion. Online media can be used to help citizens re-tell and distribute stories of heritage, opening access to more people in conservation initiatives (Tao & Park, 2025). The digital non-traditional representative shift improves accessibility and interaction, especially to the younger generations. The digital media will promote the sustainability of cultural practices, enabling emotional attachments and cultural background better appreciation (Wang & Gao, 2024) through virtual museums, interactive performances, and visualization technologies.

Besides, inventive blending of digital design and conventional craft has given rise to innovative patterns of sustainable heritage development. Technological advancement has been found to produce not just preservation but also economic, educational, and social advantage in heritage ecosystems (He & Wen, 2024). Digital art

connects heritage protection and industries by converting cultural crafts into digital and interactive goods, making it stronger through the national identity and cultural entrepreneurship.

Meanwhile, spatial and socializing processes of ICH conservation are developing. Research shows that the lack of balance in cultural representation and differences between regions in terms of digital access hinder the transfer of more traditional arts (Z. Cai et al., 2024). The use of digital tools in education and cultural tourism, therefore, has become a necessity in order to make the transmission balanced. Multimedia and animation, such as applications, have been effective in the renovation of old performances as well as intergenerational learning applications (Fei & Wong, 2024). Correspondingly, museum-based digital visualization improves the experience of visitors, maintains cultural artifacts, and makes them accessible to the global audience (Wang & Gao, 2024).

Despite the great achievements of China in digitalizing its ICH, there are still relevant issues of a compromise between technological advancement and cultural authenticity. Digital media art tends to be oriented towards aesthetic modernization, which threatens the simplification of the profound symbolical and collective applications of old heritage (Chai, Keat, and Sahimi, 2025). Also, despite the fact that digital exhibitions and online distribution increase visibility, in most cases, they do not provide the framework of sustainable involvement of communities, as well as the inclusive conservation of culture, resulting in disjointed interaction with younger audiences. Research also reveals that the quick embracing of the immersive media technologies has not been accompanied by adequate measures on cultural contextualization and moral presentation (Meng & Zhang, 2025). Therefore, a vital necessity is to review the way in which digital media art can, in fact, substantiate participatory and authentic reconfigurations of living cultures in China.

### **Research Objectives**

To explore the role of digital media art in preserving and reimagining China's IHC through the integration of insights from current research

To examine how digital media art contributes to the preservation and creative reinterpretation of China's IHC based on recent academic developments

To analyze how digital media art has been used to preserve and creatively transform China's IHC in contemporary practice

This research work is relevant to the existing literature in the field of technological integration and cultural sustainability due to its critical evaluation of the role of digital media art in facilitating the reinterpretation and preservation of the Chinese ICH. Combining artistic creativity and technological interaction, the research will fill the void between the authenticity of the heritage and digital creativity, providing knowledge about sustainable cultural transmission. It further emphasizes that digital exhibits, visualization, and participatory media bring new spaces of communicating and becoming identities in contemporary Chinese society (D. Sun, 2025). Moreover, the knowledge of the digital reinterpretation in artistic situations reinforces interdisciplinary cooperation between art, heritage studies, and the development of cultural policy, ensuring an inclusive access to and a culture of innovation (Wu, Zhan, Li, and Chen, 2025).

Using the perceived gaps in the current literature, the proposed study will go beyond a disjointed discussion regarding digital preservation and will provide a synthesis of digital preservation covering the technological, cultural and ethical aspects. In contrast to the previous researches which are more aimed at analyzing the positive aspects of the digital media, this study fundamentally reviews the conflicts between the notions of accessibility, authenticity, and sustainability. By so doing, it would give a more comprehensive view of how digital media art not just conserves but actually transforms IHC. The study can help to create more balanced and situation-specific strategies aimed at preserving digital heritage by prioritizing the challenge of long-term sustainability; the dangers of commercialization; and the ethical implications of AI-driven reinterpretation.

## **LITERATURE REVIEW**

### **Explore Digital Media's Role in Preserving and Reimagining ICH**

China has relied on digital media art to conserve and re-analyze its ICH. Emphasizing the rejuvenation of traditional shadow plays on the basis of digital interactive technologies, which include motion sensors and real-time interactions, L. Zhu and K. Zhang (2024) note. This incorporation contributes to younger generations having a more approachable medium of art, which reflects how the digital tools are allowing the traditional culture to adapt in the age of technological development to remain relevant to this renaissance in an electronic age.

Meanwhile, Cao, Pang, and Tang (2025) studied how digital platforms contribute to active communication and innovative development of ICH in Hebei Province. With the use of social media and other digital tools, ICH

practitioners will be able to reach wider populations to ensure the further relevance and visibility of traditional practices. According to the authors, online media provides the possibility of disseminating the information in real-time, thus reaching a broader audience, including younger generations, and thus making cultural heritage more democratic.

Hou, Xu, and Chen (2022) discuss the way data mining technologies are improving digital museums in China. They believe that digital museums increase cultural heritage accessibility through providing 3D recreations, virtual exhibition and immersion. Such technologies ensure that artifacts are captured and geographical restrictions are eliminated, and cultural heritage can be offered to the whole world, and its relevance will be maintained in the digital era.

Tu and Jiang (2022) investigate the issues of digital media adoption in the preservation of ICH using the example of Dunhuang Art Academy. They reveal the contradiction of innovation and authenticity, stating that on the one hand, digital tools can be used to preserve the works of art, but on the other hand, the usage of such devices can lead to misunderstandings of the cultural meaning when misused. In their paper, they state the importance of a moderate viewpoint towards digital preservation, where culture will be preserved, and at the same time, new technologies incorporated.

Additionally, A. Yang (2021) addresses the issue of the digital protection of ICH in China and explains how the standard frameworks about the protection of IHC have become a crucial force to protect the heritage using digital resources. He points out in his work that cultural institutions, technology developers, and policymakers need to collaborate to develop wholesome and sustainable systems for digital preservation. This model emphasizes the fact that digital media is not an archiving tool but a medium of continuity of the living nature of ICH to guarantee continuity through generations.

GuangChao, Fee, Razak, and Majid (2025) analyze the application of contemporary technologies in the legacy and presentation of the Shaanxi cultural heritage and mention that the film, social media, and live streaming platforms are instrumental in the increased cultural presence. Their research helps to prove the idea that multimedia storytelling has the power to revive cultural manifestations and make them more topical and interesting to contemporary viewers.

### **Digital Media Art in the Preservation and Reinterpretation of China's ICH**

According to Zeng, Md Noor, and Sabri (2025), the concepts of using ICH, such as Chinese painting and music, in Chinese secondary school education, are helpful. According to them, such an inclusion not only aids in the retention of traditional forms but also reinterprets them to fit contemporary cultural and educational settings. This practice shows the way digital media can improve the transmission of culture by providing an interactive space and a virtual learning environment to raise a new generation of culturally aware individuals.

Ding and Haris (2025) show the ways of preserving and reinterpreting opera with the help of multimedia communication skills such as digital storytelling, video projections, and interactive sound design. They claim that multimedia is critical in re-embracing the old opera, particularly to the young people who are used to digital media. Archiving the performances digitally and providing interactive experiences makes opera more open, which maintains its existence and readiness to change according to modern preferences.

Equally, Zhao, Kaewkulthorn, and Jamnongsarn (2025) look into the application of digital technology in the maintenance and inventive reinterpretation of the Chinese Manchu shamanic music. Their work highlights the idea of how digital technologies could bring this IHC to the whole world and offer new ways of appreciation by the whole world and local interaction. In this instance, the digital media enables the cross-cultural conversation, and at the same time, the authenticity of the music is maintained, so that the cultural significance is not lost.

Zeng and Hua (2022) concentrate on online cultural practices in China and the importance of data-related analysis in establishing a pattern in popular participation in ICH. Through monitoring the utilization of digital media during cultural activities and events, they will be able to prove the statement that digital media is not only involved in preserving the cultural heritage, but also in the formation of the perception and the involvement of the population due to the new ways of the media, including social media platforms.

The article by Dang et al. (2021) presents a visual research analysis of the area, indicating that technological integration is the key to the sustainable maintenance of China's ICH. They blame the fact that the visual analysis of CiteSpace has recognized the existence of expanding research hotspots in technologies and methodologies of digital preservation, which is important in the process of recording and reading an ICH by the future generation. Huang, Chang, and Li (2024) concentrate on the Chinese paper-cutting art through the technological integration, and they have provided a model of how digital tools could be utilized to document, analyze, and interpret traditional works of art. This model shows how digital documentation is vital not only in preserving such crafts but also in enabling them to be creatively reinterpreted in order to come into contemporary design practices and

international art markets.

### **Digital Media Art Preserves and Creatively Transforms China's ICH in Contemporary Practice**

Xing et al. (2023) discuss the preservation of Qin bricks and Han tiles as one of the important elements of Chinese architecture through the Internet. Their paper offers an insight into the role of digital media in changing physical heritage into user-friendly events through 3D visualization and virtual building. Not only does this ensure that these artifacts become more available to more people, but it also preserves the historical and cultural importance of these artifacts without alteration by digital interaction.

Pu, Musib, and Chang (2023) address the example of Henan Zhuizi, the oral tradition in China, and the digital tools, such as audio recordings, animation, and video, as means of preserving its cultural aspects. Their research shows that the digitization of performances is one of the ways that will open up performances to wider audiences and result in cultural pride because individuals are exploring their heritage in new ways. Nevertheless, they also warn about excessive dependence on digital media, emphasizing the need to keep the real channels of transmission in addition to the digital projects.

W.J. Fan (2020) explores the industrialization of the preservation of ICH in the Guizhou region, specifically ethnic songs, dances, and operas. The paper stresses the importance of digital means that would uphold cultural authenticity and, at the same time, allow reinterpretation. Although this digital archiving and virtual performance open more chances to global access, Fan warns that commercialization is likely to be a dilution of culture. There has to be a compromise not to abuse the importance of traditions.

Wei and Xin (2024) discuss the use of digital media in creating interest in the traditional culture among younger generations. They emphasize the revolution of web-based sites and VR technologies that change the traditional practice into a modern and enjoyable experience. Not only do these digital innovations in storytelling help conserve ICH, but they also allow an active reinterpretation to make it more relevant to a new generation that is digitally native, without contradicting the current trends and desires.

Su, Lee, Su, and Zhang (2022) explore the contribution provided by New Media Art students in the development of pedagogical models of digital preservation and entrepreneurial innovation in ICH. According to their work, digital media art students can be influential with regard to the recontextualization of traditional Chinese culture based on interactive design and entrepreneurial projects. By releasing entrepreneurial aspects, they support a concept under which digital tools, in addition to preserving heritage, should also encourage sustainable cultural innovation.

M. Guo (2025) is a tome of paradigm shift regarding the inclusion of digital technology into Chinese culture in order to preserve and innovate. The paper examines the role played by the digital media as a mediator between classical cultural values and the new technological environment. Arguing about the need to encourage digital cooperation in cultural fields, Guo (2025) makes cultural hybridization the key, only to integrate artificial intelligence and immersive technologies into the process of preserving the traditions and taking up globalization at the same time.

### **Literature Gap**

Although the literature suggests the importance of digital media art in defending and redefining the ICH in China, some gaps still exist. The research by Fan (2020) and Wei and Xin (2024) embraces the applicability of digital tools, yet ignores the challenge of sustainability in the long term and the cultural risks of commercialization. The innovation-authenticity dichotomy, as opined by Tu and Jiang (2022), has not practically explored in terms of its effects on cultural integrity. Moreover, there is no developed structure for assessing the efficiency of digital preservation of various types of the ICH, including oral traditions and performing arts (Zeng & Hua, 2022). Guo (2025) proposes to culturally hybridize, but not enough discussion is done on how AI and immersive technologies can be immersed ethically in the context of ICH preservation, without losing their cultural excellence. These breaches indicate that further studies are required on the dilemmas and sustainability of digital media in the preservation of ICHs.

To fill those gaps the present paper will assume a systematic and integrative approach whereby the paper will engage in the discussion of how digital media art can be employed to conserve and redefine China ICH. In particular, the existing work fulfils the gap on sustainability, by transforming current evidence on the long-lasting effects of digital preservation practices, including the technological dependency and cultural continuity issues. It is also concerned with the commercialization problem by critically assessing how digital technologies and forms of media can simultaneously make cultural expressions fatter and fancier as well as expose cultural expressions to commercialization efforts. Furthermore, the study is also a significant contribution to the emerging discussion on the integration of AI since the study measures the worth of introducing AI as an engaged experience and as a game changer transforming cultural images. Finally, this study presents the questions of authenticity,

participation and cultural meaning, which indirectly leads to the need to have ethically grounded models within the heritage preservation online. This multidimensional analysis would not be limited to the identification of gaps but instead take the synthesis level of gap which is a framework to connect the technological innovation and cultural sustainability.

It is not an accident that some international studies were brought in beyond the context of China for comparison to be analyzed. The studies were not used as direct evidence to support the study of Chinese ICH activities, but rather as references to understand the various developments of digital storytelling, immersive technologies, virtual heritage and audience engagement. The participation helped to highlight transferable digital preservation practices and the evolution of technologies that offer added value for the analysis of the Chinese heritage context.

### Theoretical Framework

#### Cultural Heritage Preservation Theory

The Cultural Heritage Preservation Theory focuses on balancing innovation and authenticity in the preservation of cultural heritage. It claims that even though traditional practices should be maintained, the incorporation of new technologies, including digital media, provides the space for redefining and adjusting them (Tu & Jiang, 2022). Nonetheless, the theory is very critical at rising the issues of preserving culture and embracing digital innovations. It also reveals the possible dangers of commercialization, paying much attention to the need to have sustainable preservation strategies that would consider not only the historical value of heritage but also its relevance in the contemporary world (Fan, 2020). Figure 1 illustrates the cultural heritage preservation theory (Fan, 2020).



Figure 1. Theoretical Framework

## METHODOLOGY

### Research Methods and Design

To address the research objectives, the approach of a qualitative research method was used in this research paper; that is, this research was conducted using a structured systematic literature review (SSLR) method and thematic synthesis for analyzing and synthesizing existing studies on the role of digital media art in conserving and reinterpreting China's ICH. The primary aim of the SLR was to challenge the literature on the use of digital media art in the preservation and transformation of the ICH in China. In this case, the SLR approach enabled a thorough analysis and synthesis of peer-reviewed articles, which were adequate to answer the research objectives using excellent resources and information.

## Data Collection Methods

### Searching Techniques

During the literature search, special keywords were applied, and they were related to the study themes. The keywords included such words as digital media art, IHC, China, preservation, and reinterpretation. The search strategy aimed to locate works that touched on the subject of the interaction of digital media technologies and cultural preservation, with the objective of ensuring that all the relevant information was obtained.

To ensure the reproducibility of the search-based and result reproducibility, a systematic search strategy was developed using keywords and Boolean operators pre-programmed. The main search query that was used in the databases was as follows: digital media art (OR digital media) and (intangible cultural heritage) OR ICH and China and either (preservation) or (reinterpretation) or (transformation). The different versions of this string were modified to meet the indexing needs of every database. The search terms were chosen in accordance with the central constructs of the study and narrowed down in the process to achieve the desired balance between sensitivity (scope of search results) and specificity (relevance of the search results). This systematic procedure made sure that the search process could be replicated and validated subsequently in the study.

### Databases

The search in the literature was carried out in the period between January 2025 and March 2025. There were 120 records in the selected databases (JSTOR, Web of Science, Elsevier, SpringerLink and ResearchGate) on the first searches. Findings were variant in the databases due to the indexing and coverage variability. All records retrieved were so exported and brought together into a reference management system to facilitate a systematic screening and organization.

Specific search procedures were applied to each database in order to increase search accuracy and its re-entrainability. The theoretical and heritage related studies were mainly captured through JSTOR, whereas the inter-disciplinary research on digital technologies and cultural preservation was captured using Web of Science and SpringerLink. Technology-oriented publications on VR, artificial intelligence and digital visualization were searched in Elsevier databases. The words of the search strings have been customized to the indexing needs of each database, but the basic concepts of Chinese digital media art, IHC, its preservation, reinterpretation, and China have been retained. Duplicate records were deleted before screening and all retrieved studies were screened by title, abstract and full-text against predefined inclusion and exclusion criteria.

### Boolean Operators

To refine the search and improve accuracy, Boolean operators (AND, OR, NOT) were used. For example, searching for “digital media art AND intangible cultural heritage AND China” allowed for a more targeted search by including only relevant papers. Boolean operators helped to narrow down search results, ensuring that only the most pertinent studies were included in the review.

### Inclusion and Exclusion Criteria

A set of inclusion and exclusion criteria was developed to streamline the selection process. Other studies outside China were only included if they contributed to the theoretical, methodological, or technological aspects of the preservation, visualization, and reinterpretation of IHC that were directly relevant to the work being undertaken for this project. The following table outlines these criteria (Table 1):

Table 1. Inclusion and Exclusion Criteria

Criteria	Inclusion	Exclusion
Publications	Peer-reviewed journal articles, books, and conference papers from 2020 to 2025	Grey literature, non-academic publications before 2020.
Research Type	Empirical studies, theoretical analyses, and systematic reviews	Opinion pieces, non-research-based articles
Language	English	Non-English publications (unless translations were available)
Focus	Studies on digital media's role in cultural heritage preservation	Studies not focused on ICH or digital media

### Selection of Papers Through the PRISMA Framework

PRISMA (Preferred Reporting Items to Systematic Reviews and Meta-Analyses) framework was used to filter articles. First, 120 articles were filtered on the inclusion and exclusion criteria. Reading and re-reading of abstracts and full-text were done in order to guarantee that the selected articles addressed the research objectives. Having analyzed all of them accurately, 12 articles were chosen so that the final analysis could occur. Purposive sampling was adopted to make sure that only studies that had a clear picture of the topic were included, thereby making the data relevant.

### Quality Assessment of Included Studies

To increase methodological rigor, a quality appraisal process was included according to systematic review procedures. The studies included in this compilation were evaluated according to the following four criteria: relevance to the research goals, methodological clarity, contribution to the understanding of the use of digital media in ICH and sufficiency of empirical or theoretical evidence. In the full text screening, studies were assessed for their study design and methodological transparency and only those that were directly relevant to the review objectives and were methodologically transparent were included. A formal risk-of-bias instrument was not used because the literature selected was heterogeneous in nature, but through the quality assessment process, minimum standards of academic reliability and conceptual relevance were ensured to meet the requirement for the literature to be included in the synthesis.

### Data Analysis Methods

The thematic analysis approach was employed to analyze the collected data. The process involved identifying patterns, themes, and commonalities within the selected studies. The following steps were followed (Table 2):

Table 2. Data Analysis

Steps	Description
Data Familiarization	Reading and re-reading selected articles to gain an understanding of the data.
Initial Coding	Identifying key phrases, terms, and themes related to digital media and ICH.
Theme Development	Grouping similar codes into broader themes related to preservation and innovation.
Reviewing Themes	Refining and ensuring themes accurately represent the data.
Final Analysis	Drawing conclusions based on identified themes and linking them to the research objectives.

### Ethical Considerations

An ethical concern was raised because the research was based on secondary data, and the study did not involve any human subjects. There was no requirement for informed consent. Academic integrity was maintained, and guidelines on the proper reporting and the lack of misrepresentation of results were followed through proper citation and recognition.

## RESULTS

The paper indicates the contribution of digital media art in enhancing the conception and re-enactment of the ICH of China. VR, interactive technologies, and AI render heritage more convenient, to a particular extent, to younger audiences. These technologies offer new opportunities for interaction with ICH, that is, both preservation and creative reinterpretation as an alternative to historical approaches (Table 3). This is in line with the objective of the study, which seeks to discover how digital media could make the cultural traditions relevant.

## Thematic Table

Table 3. Theme Extraction

Research Objective	Main Theme	Sub-Themes	Illustrative Codes (from literature/reports)	Expected Contribution to Analysis
To explore the role of digital media art in preserving and reimagining China's IHC through the integration of insights from current research	Digital Media in Cultural Heritage	Digital tools in preservation Reimagining tradition through digital platforms	Digital interactive technologies (Zhu & Zhang, 2024) Virtual exhibitions, interactive websites (Cao, Pang, & Tang, 2025)	Provides an understanding of how digital tools preserve and reinterpret ICH. Highlights how digital platforms make cultural heritage more accessible.
To examine how digital media art contributes to the preservation and creative reinterpretation of China's IHC based on recent academic developments	Creative Reinterpretation through Digital Media	Innovation in ICH reinterpretation Engagement with younger audiences	Digital storytelling, multimedia (Ding & Haris, 2025) VR experiences, digital archives (Wei & Xin, 2024)	Examines how digital tools enable ICH reinterpretation and preserve tradition. Explores how digital media attracts and engages younger generations with ICH.
To analyze how digital media art has been used to preserve and creatively transform China's IHC in contemporary practice	technological integration of ICH	Use of immersive technologies Preservation through innovation	3D visualization, virtual heritage (Xing et al., 2023) Cultural hybridization, AI integration (Guo, 2025)	Provides insights into how digital media creatively transforms ICH practices. Shows how digital technologies innovate ICH preservation practices.

### Theme 1: Digital Media in Cultural Heritage

Table 4 summarizes studies on digital tools in cultural heritage preservation. Pavlović (2022) emphasizes the role of digital media in museum learning, enhancing engagement and accessibility. Ioannides et al. (2014) discuss virtual museums and data technologies for global access. Córdoba & De La Cruz (2024) highlight 3D virtualization in preserving ICH, while Aytas & Karaviran (2025) analyze NFT art's impact on digital art preservation and ownership.

Cross-study synthesis of Table 4 indicates that digital media technologies are always situated as accessibility and engagement enhancing tools and it is understandable that the functional uses of the technologies differ a great deal in the contexts. Although the authors (Pavlovic, 2022 and Ioannides et al., 2014) focus their attention on the institutional use of digital tools in museums to democratize access, Córdoba-Cely and De La Cruz (2024) go further and show how 3D virtualization can help not only to preserve but also to produce knowledge collaboratively. Aytas and Karaviran (2025), on the contrary, turn to a more critical aspect, rather pointing on the ambiguous status of digital property and authenticity in the environment of the NFT representation of heritage. This division indicates that the principle of digital preservation is not a stereotypical procedure but is within a continuum between institutional curating and decentralized digital economies. Notably, one of the commonalities among the studies is the underlying assumption that making certain things more accessible will result in significant interaction; the literature however, offers little empirical support of long-lasting cultural interaction. This implies a conceptual difference between access and participation, indicating that future frameworks would be able to go beyond the technological availability to participatory and context-sensitive frameworks of heritage engagement.

**Table 4.** Digital Tools in Preservation and Reimagining Tradition Through Digital Platforms

Authors	Objectives	Methods	Findings	Conclusion
Pavlović (2022)	To review the relationship between digital tools and learning in museums and how they enhance cultural heritage preservation.	Literature review analyzing studies from 2000 to 2020. Focused on new technologies used in museums, including virtual museums and interactive media.	Digital tools have increasingly been integrated into museum learning, leading to modernized educational practices. Virtual museums and interactive media have enhanced visitor engagement and accessibility to cultural heritage.	The integration of digital technologies in museum learning is essential for modernization. It contributes to the democratization of cultural heritage and supports interactive learning.
Ioannides et al. (2014)	To explore the applications of digital technologies in cultural heritage preservation, including 3D data capture and virtual museums.	Edited volume containing 37 papers and 30 short papers, with a focus on digital data acquisition and virtual museum applications.	The use of digital data acquisition technologies has enabled more effective documentation, preservation, and visualization of cultural heritage. Virtual museums offer interactive experiences, enhancing global accessibility to ICH.	Digital technologies are transforming the preservation and communication of cultural heritage, facilitating wider engagement with ICH through interactive and immersive platforms.
Córdoba & De La Cruz (2024)	To present a case study on the 3D virtualization of Pasto varnish, an IHC of Colombia.	3D documentation, 3D representation, and 3D dissemination techniques were used to create a virtual museum for the preservation of the Pasto varnish technique.	3D virtualization has enabled the digital preservation and dissemination of the Pasto varnish technique, allowing broader access while maintaining authenticity. The process fosters collaboration among heritage researchers.	Virtual heritage, specifically 3D documentation, is a powerful tool for preserving and reviving ICH, offering opportunities for wider engagement and enhanced research.
Aytas & Karaviran (2025)	To explore the perceptions of virtual communities about NFT art and its impact on digital art preservation and ownership.	Netnographic analysis of forum sites like Reddit, Donanim Haber, and R10 to analyze online discussions about NFT and digital art.	Virtual communities display mixed reactions to NFT art, with some viewing it as speculative, while others see it as a revolutionary step in digital art ownership. NFT technology offers new opportunities for artists and collectors.	NFT technology is reshaping digital art, creating new methods of preservation and ownership. However, the value and authenticity of NFTs remain points of contention in virtual communities.

## Theme 2: Creative Reinterpretation Through Digital Media

Table 5 highlights studies on digital media's impact on narrative transformation and cultural preservation. Hossain (2025) explores how digital storytelling fosters reader engagement. Lau et al. (2025) analyze the use of VR and AI in oral storytelling. Liu et al. (2025) examine immersive VR theater for reinterpreting Chinese ICH, while Partarakis et al. (2020) discuss the role of digital technologies like 3D modeling in preserving heritage crafts.

Overview of the studies synthesized in Table 5 highlights worldlier shift to passive preservation to interactive and experience-driven re-comprehending of what is IHC. Digital storytelling, VR, and AI have a coherent discussion across the literature about enhancing engagement and immersion of culture, particularly among younger audiences, as a technology tool (Lau et al., 2025; Liu et al., 2025). However, in citing a nuanced and significant similarity, we would be able to observe a latent argument between the personalization and authenticity. Although AI-based generation of personalized narratives provides a setting of more specialized cultural experiences, it can as well be the death of cultural emphasis in favor of centralizing interpretations and generation of cultural values through the prism of historic and historical underpinnings. Moreover, the level of engagements and the spread of participatory engagement into a closer understanding of the culture are not explored to such a scope even though Hossain (2025) and Partarakis et al. (2020) focus on these features. This foreshadows the possibility of modern modes of digital re-interpretation being experience-oriented and anti-epistemological. As

such, it is a more general approach methodological shortcoming wherein interaction is frequently used to gauge engagement, as opposed to cultural understanding, pointing to future research employing more formidable evaluative models.

**Table 5.** Innovation in ICH Reinterpretation Engagement with Younger Audiences

Authors	Objectives	Methods	Findings	Conclusion
Hossain (2025)	To explore the impact of digital platforms on narrative transformation and reader engagement, focusing on interactive storytelling.	Qualitative content analysis of digital narratives, including case studies of platforms like Wattpad and AO3. Used semi-structured interviews with authors and readers.	Digital storytelling platforms promote reader engagement by offering interactive experiences that transform traditional narratives into more inclusive and participatory forms.	Digital platforms have redefined narrative forms, enhanced reader engagement, and fostered a shift from passive consumption to active participation, highlighting the adaptability of storytelling.
Lau et al. (2025)	To analyze the role of VR and generative AI in enhancing engagement with oral storytelling through personalized narratives.	Mixed-method study with a 2 × 2 between-subjects design, combining VR immersion and AI-driven narrative personalization. Involves quantitative surveys and qualitative interviews.	VR and AI significantly enhance engagement by personalizing the narrative experience, fostering emotional connections and cultural interest among users, particularly younger generations.	Generative AI and VR enhance engagement and cultural interest in oral traditions, offering innovative ways to revitalize and preserve oral storytelling in a digital age.
Liu, Sun, Meng, and Rao (2025)	To investigate the use of immersive VR theater for reinterpreting Chinese ICH, specifically focusing on transmedia strategies.	Case study of immersive VR theater, examining transmedia strategies applied to Chinese ICH. Uses qualitative analysis of audience responses to immersive experiences.	Immersive VR experiences, combined with transmedia strategies, can effectively reinterpret Chinese ICH, fostering a deeper understanding and emotional connection with cultural narratives.	Immersive VR theater is a powerful tool for reinterpreting Chinese ICH and provides innovative approaches to enhancing engagement and understanding through transmedia storytelling.
Partarakis, Zabulis, Antona, and Stephanidis (2020)	To explore how digital technologies can be integrated into the representation and presentation of heritage crafts.	Literature review, followed by interdisciplinary research, focusing on 3D modeling and motion capture technologies for representing heritage crafts.	Digital technologies like 3D modeling and motion capture effectively represent and present heritage crafts, making them more engaging and accessible to contemporary audiences while enhancing cultural preservation.	Digital technologies offer transformative potential for engaging digital experiences, fostering authentic cultural preservation and reinterpretation through interactive visual media.

### Theme 3: Technological integration of ICH

**Table 6** highlights studies on the impact of digital technologies on cultural preservation and education. Wang & Zakaria (2025) explore 3D visualization in architectural conservation. Egunjobi & Adeyeye (2024) analyze AR and AI in education, while Zhao (2024) focuses on digital immersive art for cultural rejuvenation in China. Velhinho & Almeida (2023) discuss digitization and co-creation in preserving collective memory.

A critical analysis of Table 6 shows that the 3D visualization, AI, and augmented reality, in particular, lead the digital transformation of preservation of the ICH. Even though studies such as Wang and Zakaria (2025) and Zhao (2024) talk about these technologies as a game changer in enhancing efficiency and presence in the area of preservation, on a close comparison, it is clear that the advancement of technology has brought out an invaluable unequal exposure to the context in the form of cultural contextualization. Specifically, Egunjobi and Adeyeye (2024) perceive AI and AR through the prism of educational innovation, and Velhinho and Almeida (2023) consider it through the prism of co-creation and collective memory that is focused on the clearly socially-oriented solutions. The paradigm shift in the vision of digital transformation is reflected in this contrast: two paradigms are being used in approaching digital transformation: the historically technological optimization and the

community-based cultural continuity. Notably, the popularity of the former can be seen also as a worry about the sustainability of digitally mediated heritage in the long term as technological innovation can surpass the establishment of ethical and cultural management systems. Therefore, this literature suggests that it would be fitting to consider integrative models in the subsequent developments that would consider potential technology and cultural integrity, community involvement, and sustainability problems.

**Table 6.** Use of Immersive Technologies for Preservation Through Innovation

<b>Authors</b>	<b>Objectives</b>	<b>Methods</b>	<b>Findings</b>	<b>Conclusion</b>
Wang & Zakaria (2025)	To review the design applications and evolution of 3D visualization technology in architectural heritage conservation.	CiteSpace-based knowledge mapping and systematic review of publications from 2005–2024. Analyzed research trends and development.	3D visualization technologies have evolved to enhance architectural heritage conservation, aiding in digital preservation and providing interactive experiences for users.	3D visualization technologies significantly enhance the preservation process and support interactive engagement, providing solutions to modernize heritage conservation while preserving cultural significance.
Egunjobi and Adeyeye (2024)	To explore the impact of augmented reality (AR) and artificial intelligence (AI) on education.	Literature review and qualitative analysis of case studies on the use of AR and AI in education.	AR and AI contribute to personalized learning, enhance engagement, and improve interactive experiences for students. These technologies have revolutionized education by integrating immersive learning into traditional curricula.	AR and AI are transforming education, providing new tools for interactive learning and personalized educational experiences, emphasizing the importance of technology integration in the classroom.
X. Zhao (2024)	To examine the role of digital immersive art in China's cultural rejuvenation and cultural presence.	Theoretical analysis and case studies on the use of digital immersive art for the rejuvenation of Chinese cultural heritage.	Digital immersive art has contributed to the rejuvenation of Chinese ICH, enhancing cultural presence globally and allowing audiences to engage with traditional forms in innovative ways.	Digital immersive art is crucial in preserving and transforming Chinese culture, offering opportunities for cultural exchange and global appreciation through innovative technologies.
Velhinho & Almeida (2023)	To analyze the impact of digitization, cultural mapping, and co-creation on collective memory in digital culture.	Case studies, digital archives, and ethnographic methods for understanding the role of digitization in cultural memory.	Digitization and cultural mapping are transforming the preservation of collective memory, encouraging collaborative co-creation and broadening access to heritage and cultural narratives.	Digitization and co-creation offer significant potential in preserving collective memory and ensuring that cultural heritage is accessible and relevant for future generations in the digital age.

### Interpretation of the Findings

According to the results of the study, the processes of digital media art integration into the preservation and reimagination of China can be observed as the promotion of the Chinese ICH, as both are successful. The findings are in accordance with the first aim, as it is concerned with the process of comprehending the use of digital media in conserving and changing ICH. Digital technologies, including interactive technologies (Zhu and Zhang, 2024) and virtual exhibitions (Cao, Pang, and Tang, 2025), have shown that they become significantly effective in making cultural heritage more reachable, particularly by younger audiences. These online interfaces reduce it to real time, and cultural knowledge is democratized (Cao, Pang, and Tang, 2025).

Moreover, the results on the maintenance and redefinition of ICH in the context of technological advances evolve the subtle perception of the way digital platforms can speak to a younger audience. As an example, virtual experiences, including those developed with the help of VR technologies (Wei and Xin, 2024), not only have a conservatory character, but also creatively adjust to the modern tendencies, meeting the second research goal.

Analyzing the digital media art application in the modern practice is the third goal that is captured in the use

of 3D visualization (Xing et al., 2023) and AI application (Guo, 2025) to generate and retain cultural heritage. These technologies enable more interaction and provide more immersive experiences, enabling ICH to be more relevant to the modern world and ensure its preservation.

The themes mentioned above can also be further illustrated with the Cultural Heritage Preservation Theory in which there is a balance between innovativeness and authenticity in cultural preservation. Results indicate that AIT digital media technologies and VR in particular are the groups of the adaptive preservation since they enable one to convert the conventional cultural manifestations into the digitally mediated experiences. However, we are also being given evidence that this shift does not just occur; actually, it introduces the tensions that were initiated between enhancement of the technological and preservation of cultural sense. In a way to explain, as much as immersive technologies have the merit of bringing heightened accessibility and involvement, cultural practices can become decontextualised as well. This suggests that not only is digital media favorable to heritage restoration, but it is actually a facilitator of ontological changes in heritage as well, and such transformation continues to expand theoretical statements that preservation is a process that is dynamic and negotiable, and not a conservation act.

## DISCUSSION

The Cultural Heritage Preservation Theory provides knowledge to the discussion because it presents a conceptual model of the cultural authenticity/innovation dynamic space in connection with technology. This theory presupposes that preservation will not be efficient in the absence of the more adaptive interpretation of the traditional forms in response to contemporary situations. In this regard, digital media art turns into the mediating force of a balance and complicates it as well. Locating the findings within this theoretical framework, a discussion moves beyond more of descriptive analysis to a critical appreciation of how digital interventions re-establish the boundaries of authenticity, participation and sustainability in ICH preservation.

Digital technologies not only technically transform the production, interpretation and transmission of culture, they also shape cultural meaning. The evidence reviewed in this report indicates that digital preservation is not simply a technology-enhancing process but one that is mediated (cultural) and affects the way the audience understands heritage. Immersive technologies, in addition to boosting accessibility and participation, also entail dangers of selective representation, algorithmic mediation and a streamlining of complex cultural narratives. For these reasons, the impact of digital preservation should be assessed in terms of technological innovation as well as the ability to preserve cultural authenticity, community involvement and contextual integrity.

The results of the conducted study agree with past studies to a large extent, and they verified the important role of digital media art in the conservation and re-enactment of the ICH in China. It has been discovered that the application of digital resources like interactive technologies (Zhu and Zhang, 2024) and virtual expositions (Cao, Pang, and Tang, 2025) not only maintains the conventional forms of culture but also makes them more accessible, especially to the younger generations. This is consistent with previous research, including that by Li (2025), who reported on the growing importance of digital platforms that helped to close the divide between the traditional culture and the modern technological space. Digital media has given a place upon which the cultural heritage can be reimagined, reinterpreted, and preserved in a way that is not possible with traditional media alone.

The virtues of VR and augmented reality (AR), as confirmed by Wei and Xin (2024), confirm the preceding literature, including Liu et al. (2025), who showed how the technology improved the interest of the audience towards the cultural heritage. Specifically, VR and interactive digital media can be used to experience the heritage immersively, which has no solution in the case of traditional preservation approaches. Digital immersive art provides the global population with an opportunity to engage with Chinese cultural traditions without physical borders, which, according to Zhao (2024), is how digital immersive art can enable the involvement of a larger audience in the process. The findings demonstrate that more attention may be drawn to the immersive media, particularly where they are applied in developing an interactive process. This is in line with the observation in Fan (2020), who noted that it was essential to generate dynamic and participatory spaces of cultural engagement, particularly in the case of youth engagement. The digital platform to emerge as a heritage display tool is not just a powerful mechanism in preservation, but enables other people to retain the relevance of cultural traditions in the digital age.

On theoretical matter, the results affirm as well as dispute the postulations of Cultural Heritage Preservation Theory. On the one hand, there is the adaptive emphasis of the theory of preservation in the adoption of digital technologies that can be observed through the use of VR and AI to renew the cultural practices and facilitate intergenerational transmission. On the other hand, the aspect that technologically mediated experiences gain significance poses grave dangers such as erosion of the cultural genuineness. It is postulated in the literature that

digitally reimagined or algorithmically customized heritage experiences can be more focused on aesthetics and experiences, rather than symbolic and community. It is the main constraint of the theory, which believing that innovation and authenticity can be harmonized, yet the results show that in most cases, this process is unbalanced, and technological innovation has a dominating impact. Therefore, it is possible to refine the theory to take into account the inequalities of influence of digital technologies beyond the development of cultural discourse.

Nevertheless, the current study has a crucial distinction in terms of the potential of the existing AI integration in comparison with the previously conducted research. Guo (2025) has suggested the need to hybridize cultures using AI and other hi-tech tools, providing a different solution in order to preserve and redefine ICH. Although the topic of digital tools and interactive technologies was covered in prior research, the issue of AI as an instrument of ICH reinterpretation is relatively recent. With AI, people receive an increased effect of personalization and customization, which may potentially change the way cultural heritage is delivered to various audiences. Nevertheless, according to Tu and Jiang (2022), with the advent of these technologies, the issue of maintaining cultural authenticity is brought up. The existing evidence indicates that, despite the highly promising impact of AI and other technologies on engagement, they should take the issue of preserving authenticity and ensuring the active renewal of heritage that is considered a crucial issue (as Tu and Jiang supplement, 2022).

The gap in the current study, and one not fully addressed in the previous literature, is the sustainability of digital practices. Increasing research, such as that of Xing et al. (2023) and (Cao, Pang, and Tang, 2025), has identified the role comparable digital platforms must play in making heritage more type-friendly. Nonetheless, the sustainability of these platforms (long-term) had not been addressed by them, which was a crucial concern in the present study. As observed, the opportunities of long-term digital preservation of ICH might not be easy, such as the danger of technological barriers or erosion of cultural meanings over time. The present paper emphasizes the necessity of a digital preservation model that is all-encompassing and sustainable, and has not been examined in detail in previous research.

Besides, the problem of commercialization and the possible loss of culture, which Fan (2020) identified, turned out to be still relevant in the given research. Although digital means and online platforms aid in the globalization of ICH, they are also at risk of commoditizing cultural traditions. This is an important issue that Fan points to that is also pertinent to the present results, as the market-generated approaches might potentially confuse the heritage or even soften its cultural meaning. In contrast to the previous studies that primarily concentrated on the positive sides of digitalization, the present study explores the ethical aspects of cultural commercialization in digital space more thoroughly.

This study contributes to the advancement of the Cultural Heritage Preservation Theory because it is essential to rethink preservation as a technologically mediation process and a process based on a particular context. The results indicate that maintaining authenticity is not the only aspect of preservation in the digital era in negotiating the cultural meaning in digitally created spaces. Due to that, the theory needs to take into account the factors of algorithmic mediation, user engagement and platform relations as the element constituents of contemporary heritage preservation. This paper proposes a de-simplified vision of preservation that considers the significance of technological affordances and cultural integrity because it proposes that digital cultural ecosystems must be viewed from a more complex prism.

### **Theoretical Implications**

The theoretical implications of the current research describe how the role of digital media is changing, which embodies the art of digital media in creating and maintaining the ICH of China. The paper draws the point of intersection between innovation and cultural authenticity, applying to the Cultural Heritage Preservation Theory that speaks of preserving the balance between progressive changes and evolution based on the use of digital technologies. This theory suggests that emerging technologies, such as VR, augmented reality (AR), and artificial intelligence (AI), should be utilized to facilitate interaction of the culture, as is the case with Guo (2025), who is inspired by the interaction of culture and the use of technologies.

The findings of the research are supported by the research done by Wu et al. (2025) and Tao and Park (2025), stating that because of digital art, ICH could be modified and cultural value could be preserved simultaneously. The study contributes to the sustainability of the digital methods of preserving artworks in the long run by proposing various kinds of technologies, including 3D display and interactive platforms. This can assist in turning the passive conservation into an act of active and participatory cultural regeneration and could ensure authenticity and innovation.

The gaps found in the literature are directly addressed by the findings of this study which show that digital media art processes within an intricate network of opportunities and constraints. With the concept of sustainability, the reviewed analysis has revealed that although digital platforms can benefit accessibility, the

long-term impacts of digital platforms require ongoing technology modifications and institutional facilitation. In terms of commercialization, the results validate that the more a given cultural practice is digitally visible, the more it becomes commodified thus supporting the fears created in previous research. Moreover, the purpose of AI as something innovative but problematic also appears since on the one hand, it allows experiencing culture as an individual; on the other hand, the issue of originality and ownership of culture arises. These observations imply that digital preservation is not merely a technological phenomenon that can be appraised in terms of its ethical and cultural judgment but rather a phenomenon that is to be judged within a wider ethical and cultural framework. Therefore, the research not only reveals but also directly tries to fill in the significant gaps in the current research.

One theme through the literature reviewed is the conflict between visibility and authenticity. However, digital platforms have the potential to greatly increase public access to cultural heritage, but do not necessarily lead to more cultural understanding. The discovery indicates that the shift towards community-centred approaches in cultural preservation that focus on the cultural meaning, involvement of stakeholders and sustainability of the process are needed in the future, and not technology-focused. This would better connect to the core goals of heritage preservation with an innovation digital approach.

## CONCLUSION

Conservation and renegotiation of the ICH of China due to the new media art employed in the digital media will be highlighted in this paper. This research validates that VR, three-dimensional visualization, and the use of AI play a significant role in digital technology, which can serve to maintain cultural artifacts and ensure their availability to the mass audience, particularly younger generations. The findings confirm that these tools not only assist us in preserving cultural heritage, but also that the imagination of these tools can be done in a creative way to ensure that they gain relevance in contemporary contexts. Besides, digital platforms provide upcoming platforms of cultural engagements and participatory experiences that enhance the emotional and aesthetic connection to the cultural heritage.

## LIMITATIONS OF THE STUDY

The utilization of secondary data by the use of published articles is one of the weaknesses of this research, as it limits the scope of primary research on actual digital media implementation in heritage preservation. In addition, the study does not imply a close study of the feasibility and practicality of digital technologies used in the sphere of ICH preservation, such as cultural authenticity.

In addition to secondary data usage, a variety of methodological limitations should be mentioned. First of all, the systematic review was based on English-language articles only which will predispose the research paper to language biasing. Seeing that much of the literature on the topic of ICH in China is published in Chinese, the exclusion of the non-English literature could have restricted the thoroughness of the study and could have left context-specific information and local viewpoints unexplored.

Second, it is time-bound as the study has explored only the time span of 2020-2025. Although this timeframe was chosen to reflect modern technological changes, it could have missed some of the earlier background studies that aid in the theoretical and historical background of digital heritage preservation. Because of this, the analysis can possibly be more representative of the current trends than scholarly evolution in the long run.

Third, a relatively small sample size ( $n = 12$ ) may be seen as a limitation to the extrapolation of the findings since only strict inclusion and exclusion criteria were used. Even though the purposive selection guaranteed the relevance and quality, it also introduces the chance of having a selection bias whereby some modes of thinking or methods are disproportionately represented in the end synthesis.

In addition to that, no official quality appraisal or risk-of-bias evaluation of the used studies is executed because the studies are capable of affecting the quality of the results. The research design could be different, the methodology rigor and the depth of analysis of the different selected articles may impact on the standardization and reliability of synthesized results.

Lastly, the application of a qualitative thematic synthesis, even though appropriate in determining patterns and conceptual understanding, could have some amount of interpretive subjectivity. Despite the attempts to provide systematic coding and development of themes, the analysis is still affected by the impression of the view of the researcher, which can potentially influence the interpretation of the data.

### **FUTURE WORK**

Further studies may involve a longitudinal case study that ensures the sustainability of the digital media application in ICH preservation in the long term. In addition, examining ethical models to be used when integrating AI and its effects on cultural integrity in the digital age would offer valuable insights on how to use technologies responsibly in the preservation of culture.

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#### ETHICAL DECLARATION

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**Conflict of interest:** The author(s) declare(s) no conflict of interest. **Financing:** None. **Peer review:** Double anonymous peer review. **Generative AI statement:** The authors declare that no Gen AI was used in the creation of this manuscript.