



Generative Curation: Applying AIGC Technologies to Create Dynamic Foshan Lion Dance Learning Exhibitions for Art Students

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Abstract

This study examines the use of Artificial Intelligence Generated Content (AIGC) in curating a dynamic learning exhibition of the Foshan Lion Dance as intangible cultural heritage for art students. Grounded in embodied cognition and constructivist learning theory, the study conceptualizes AIGC as a human-in-the-loop generative curation tool that supports participatory learning and cultural co-creation.

The research aims to: (1) explore how AIGC can be applied in immersive exhibition design for performance-based heritage; (2) evaluate its educational impact on student engagement, creativity, and cultural understanding; and (3) identify challenges related to cultural authenticity and ethical implementation. A qualitative case-study approach was adopted, based on student participation and thematic analysis of learning experiences.

The results indicate that AIGC-enhanced exhibitions improve cultural visualization, interactive engagement, and creative learning, while also increasing accessibility through adaptive and multimodal features. At the same time, limitations concerning authenticity control and long-term sustainability are identified. The study demonstrates that, when guided by appropriate learning theory and ethical frameworks, AIGC can function as both an educational medium and a cultural preservation strategy. It contributes to digital heritage and art education by proposing generative curation as a concise and applicable framework linking traditional performance heritage with contemporary learning environments.

Keywords : Foshan Lion Dance, Generative Artificial Intelligence (AIGC), Intangible Cultural Heritage, AIGC Cultural and Creative Design Exhibition Design

Introduction

1. Background

The Southern Lion Dance in Guangdong province is considered as a major representation of Lingnan culture and is commonly known to have originated in the city of Foshan. This folk performance is a mix of martial arts/music/and symbolic movement which is often performed during celebrations in order to banish bad luck and bring success. Another outstanding feature about the Foshan lion is its expressive design that is lightweight, has bright colors, and is movable so that performers use it to express themselves by tightly synchronizing with other percussion instruments (Yap, 2017). Being one of the national Intangible Cultural Heritage of China since 2006, Foshan Lion Dance is an active type of living heritage. Yet, current essays in schools and museums can have the limit of costumes overheads or videos. These forms do not have the performative density and sensation-experience that contemporary art students need. With education being reified to fit more expressive and interactional learning, there is a subsequent demand to deliver cultural heritage more dynamically (Hooper-Greenhill, 2007).

The solution is Artificial Intelligence Generated Content (AIGC). AIGC technologies have potential to produce visuals, narratives, and immersive spaces, to allow responses and interactions with exhibitions. In similar way, Lei et al. (2025) demonstrated that AI-assisted spatial optimization can help increase consumer engagement through layout adaptations to their movements. Suiçmez (2025) also showed that AI would allow the personalization of museums according to the interests of users in the storytelling. After the Exploratorium in San Francisco and others have embraced AIGC to create audience-based, interactive shows (Spadoni et al., 2022). Even with such developments, the cultural specificity and instrumental version of heritage like the Foshan Lion Dance with regard to art education has not been filled. This paper fills that gap and examines how AIGC can design interactive, educational exhibits that capture the essence of a student's culture and how it connects to the student experience, be creative and enhance student engagement.

The cultural experiences are already starting to change in the wake of digital innovation. According to the International Council of Museums, more than 60 percent of the world's museums have implemented AR or VR technologies since 2020 due to the need to provide experiences (ICOM, 2023). Similarly, a survey of Chinese university students found that more than 55 percent of them found traditional cultural exhibitions dull in comparison to interactive exhibitions (China Education Daily, 2024). Such processes point to the immediate necessity to reconsider heritage transmission to the digital era. Artificial Intelligence Generated Content (AIGC) is a solution in good time. Through the creation of visuals, stories, and adaptive space, AIGC has the opportunity to bring the heritage back to life and convert the lifeless exhibition space into an active cultural learning platform. In the past, AI storytelling and space optimization have been demonstrated to increase visitor engagement in museums (Lei et al., 2025; Suiucmez, 2025). However, there is scant literature on AIGC applications to intangible cultural heritage, particularly applications that integrate cultural conservation and student learning in art schools.

2. Problem Statement

Although rich in culture, the Foshan Lion Dance is still mostly single-dimensional and passive in the educational setting. The existence of traditional exhibitions limits their effectiveness as learning tools because they do not reflect the rhythm, symbolism, and performance nature of the dance. This lack of interest undermines student interactions, cultural sympathy, and artistic voyage. Simultaneously, as museums around the globe turn to the applications of AR and VR to communicate with their audiences, only a small number of studies examine the potential of integrating AIGC towards culturally specific and student-centered exhibitions of heritage. This research fills this gap by exploring how AIGC can be used to organize dynamic interactive exhibitions of Foshan Lion Dance. Its aims include the exploration of the potential of AIGC tools in the field of exhibition design, assessment of their effects on student engagement and learning, and issues of authenticity, ethics, and sustainability. In this way, AIGC can serve as an educational resource and a cultural preservation measure that positively addresses the increasing demand in immersive and meaningful heritage education.

3. Research Questions

- How can AIGC tools (e.g., text-to-image, video synthesis, interactive storytelling) be effectively integrated in the design and curation of a Foshan lion dance exhibition?
- What impact does the AIGC-based exhibition have on art students' engagement, cultural comprehension, and creative ideation?
- What are the key limitations including ethical considerations, technological constraints, and cultural sensitivity in deploying generative curation within heritage-focused educational exhibitions?

4. Significance of the Study

The study also matters since it proposes a unique combination of AI generative applications, intangible cultural heritage, and art education, which has not been well explored yet. Although past research has discussed digital heritage preservation or the influence of AR/VR in a museum, limited literature has been produced on how AIGC can be integrated into performance-based and culturally oriented traditions, such as the Foshan Lion Dance, to directly impact the student learning process. This study addresses a critical gap in the literature by both positioning AIGC as a means of cultural visualization and as an interactive medium of co-creation and pedagogy. The results also have great practical implications. As a teacher, AIGC exhibits may be incorporated into art and design classes as a way to combine theoretical and practical knowledge, thereby making heritage learning more interactive and immersive. In the case of cultural institutions, the framework indicates how generative technologies can transform fixed displays into immersive, student-centered experiences that both maintain tradition and evolve to meet the demands of the contemporary world. Multilingual translation, remote access, and adaptive learning modes are among the features that demonstrate the potential of AIGC to facilitate inclusive education, so that heritage learning can be made available to a wide range of students with a variety of linguistic, geographic, and cultural backgrounds.

Research Objective

1. To explore how AIGC technologies can be applied to develop a dynamic, interactive exhibition centered around Foshan lion dance for art students.
2. To evaluate the educational and engagement outcomes of such an exhibition on art students' cultural understanding, creativity, and learning experience.
3. To identify both opportunities and challenges including issues of cultural authenticity, pedagogical value, and technical implementation in deploying generative curation in this context.

Literature Review

1. The Lion Dance as Dynamic Cultural Heritage

Southern Lion Dance of Foshan is a representative of Lingnan culture in martial art as shown in figure 1, rhythmic movement, and visual art, which has become an abundant source of local identity and intergenerational memory (Zhang et al., 2024). The development of the Guangdong Lion Dance in history occurs due to the evolutions in the transmission techniques of this dance as the master-apprentice approach to learning to the vocational way which emphasizes the dynamism of its heritage (Qiu et al., 2024). Traditional exhibition mode, in the form of stationary exhibits of lion head or video performance cannot fully capture the embodied energy and performative subtlety of the tradition. UNESCO asserts that dynamic participatory existence of the intangible cultural heritage is best rather than fixed conservation (UNESCO, 2003). Educational programs where young people participated in the process of learning and lion dance indicate greater cultural proximity and better-grounded knowledge when the learning process is not passive and centered on observation only (Yu, 2024). However, these hands-on pedagogies have proven to have limitations in scalability as well as integration with immersive technology, curbing the wider access and educational value.



Figure 1 Southern Lion Dance of Foshan

Source: Author

2. Digital and Immersive Technologies for Cultural Transmission

The emerging studies emphasize the need of embedded learning of the intangible cultural heritage by means of immersive technology. As an example, a recent study on FloraJing and Traditional Chinese Flower Arrangement is based on VR and shows how a culturally enhanced virtual reality environment can facilitate continual practice via reflective, multisensory surroundings. This method will not only promote technical expertise, but it will also improve cultural symbolism knowledge in learners (Wang et al., 2025). Devoted to a non-performance craft, the research shows the design potential of the VR systems involving skill learning and cultural connotation. In the context of lion dance performances, researchers suggest the inclusion of AR and VR gesture-based interfaces to improve the experience of visitors that would allow simulating the dance of lions or traditional drum playing in order to appreciate the culture (Ouyang et al., 2024). Such proposals however, tend to stay at the conceptual level, involving no adaptive, generatively responsive interaction. The development of immersive generative exhibit models, therefore, is an almost untapped area that has to offer a lot.



Figure 2 Chinese Festival

Source: Author

3. Generative AI in Cultural Heritage and Creative Education

The generative AI (AIGC) is being used more and more in museum innovations, enriched learning, and creative production. According to Lei et al. (2025), spatial optimization powered by AI increases the flow and engagement of the visitors. Museums are also starting to change the experience of visitors and narrative directly through human-centered AI models (Derda & Predescu, 2025). The world of intangible heritage In this domain, such studies as Cheng et al., (2025) demonstrate how generative AI within VR world allows museums to show textile heritage in an adaptive, immersive form and respond to user response. The usage of DeepSeek made in another study in conjunction with MidJourney notes how AI-produced depictions of Yangliuqing woodblock prints as shown in fig 3 could re-ignite cultural curiosity and activation and still be stylistically precise (Yang et al., 2025). In addition, Fu et al., (2024) stated that ACM research demonstrates how visions co-created via participation in participatory AI systems can allow visitors to experience co-creation to exert influence over the ways that cultural heritage is narratively represented, replacing passive consumption.



Figure 3 Yangliuqing woodblock prints
Source: Author

4. Ethical, Inclusive, and Cultural Considerations in AIGC Deployment

Ethical frameworks of culturally grounded AI design underscore the significance of ensuring truthfulness and non-misrepresentation. The innovations such as The Voice of Art within Pinacoteca in Sao Paulo apply AI in order to introduce responsive narration based on the knowledge made by curators demonstrating that generative technologies enable enriching experiences without disregarding cultural context (Avlonitou, 2025). The studies on other topics, like digital repatriation, also underline the importance of user agency, giving back the digital pieces of cultural heritage to the people who created them, in order to secure cultural sovereignty and curation in context (Rauhala, 2024). Responsible uses of AI in museums require such practices as culturally sensitive metadata, community contribution, and universal design criteria.

5. Insights from Immersive and AI-led Cultural Experiences

Current development makes the idea of immersive shows useful among different people. A commentary by the Financial Times also emphasises the way in which immersive installations, such as those combining art and environmental immersion, e.g., the TeamLabs environmental art installation, and immersive art displays, e.g., the immersive Lowry 360 immersive environment at the Lowry in Manchester, can be used to support emotional engagement with a diverse audience including neurodiverse visitors (Fawcett, 2025). AI survivor holograms that interact with visitors in the real-time are also featured in interactive exhibitions in the U.S, which prove the ability of AI to make

context-sensitive and empathetic storytelling (Wolff, 2023). The emergence of generative AI can also be represented by such projects as Dataland the first AI art museum in the world opening soon in Los Angeles that allows placing the machine collaboration in the role of an artistic collaborator within the museums (Beckett, 2024). The technology of generative AI can also accept environmental data to produce evolving soundscapes, as in one of Björks major AI art installations that show how its use can merge art with environment and heritage in immersive forms.

6. Cultural Heritage and Immersive Technologies

An essential reflection of the culture of Lingnan, the Southern Lion Dance of Foshan, is the fusion of martial arts, music, and symbolic movement into a living practice of identity and intergenerational memory (Zhang, Li, & Wang, 2024). It remains central in the expression of culture, being proclaimed as a national Intangible Cultural Heritage in 2006. However, fixed heritage values like costumes or video recordings cannot convey the participatory richness and symbolic richness of the dance as UNESCO (2003) stresses that it needs to be preserved by participation instead of conservation. Research also indicates that cultural proximity and appreciation during the practice of lion dances are better in conditions of youth involvement than passivity (Yu, 2024). In order to overcome this shortcoming of the static display, immersive technologies have been embraced in a heritage setting, including VR and AR. Wang et al. (2025) revealed that VR based cultural environment can be used in increasing the level of technical skill and symbolic learning with the help of multi-sensory involvement. In the same vein, Ouyang et al. (2024) demonstrated that the simulated lion dance and drumming using tactile AR devices resulted in greater cultural appreciation in participants. Extensive tourism and museum studies also validate that VR and AR reinforce visitor interest, concentration, and retention (Jung, tom Dieck, Lee, & Chung, 2021). Even with all these advances, the majority of applications are still very conceptual, and are not adaptive and generative enough to respond dynamically to the input of learners.

7. Generative AI, Ethics, and Research Gaps

Generative AI (AIGC) has already become a significant instrument of cultural preservation and creative education. According to Lei et al. (2025), AI-based spatial optimization enhances visitor experience in museums by adjusting exhibitions in relation to visitor flow. Cheng et al. (2025) reported the way AI-driven VR exhibitions contribute to adaptive storytelling and immersive learning, and Yang, Wei, and Xian (2025) showed the potential of AI-based tools like DeepSeek and MidJourney to revitalize classical Yangliuqing woodblock prints without losing its stylistic essence. These works demonstrate that AIGC has the potential to connect cultural visualization, co-creation, and education, but they have not yet been applied to performance-based traditions, such as lion dance. Meanwhile, the application of AI in heritage environments becomes an ethical, inclusion, and authenticity concern. According to Avlonitou, Papadaki, and Apostolakis (2025), AI in museums should focus on being true to the facts and not promoting the distortion of a culture, whereas Rauhala (2024) asserts the need of digital repatriation as a tool to uphold cultural sovereignty. Inclusivity is also an important factor: Chrysanthi et al. (2021) discovered that multimodal digital storytelling eliminates language and cognitive barriers, which expands delivery to more diverse learners. However, researchers warn that unless used with a keen eye to context, generative outputs can simplify traditions or degrade their symbolic value (Shi, Inkuer, Mayusoh, & Puntien, 2025). Based on this review, it is possible to identify a research gap. Cultural heritage studies record the Foshan Lion Dance, immersive technologies research the idea of interactivity, and AIGC shows the possibility of museums, but these fields have not been mixed. To fill this void, the current research paper postulates generative curation as a new model to integrate tradition, online innovation, and pedagogy and allow students to take a more active role in producing heritage experiences, rather than merely being their viewers.

To further operationalize this approach and respond to ethical and methodological concerns, the process for applying AIGC in exhibition management is clarified as follows. First, cultural data related to the Foshan Lion Dance - including historical documentation, performance records, symbolic elements, and expert interpretations are systematically collected and curated to establish a culturally grounded knowledge base. Second, generative AI tools are employed to assist in the creation of exhibition content, such as visual narratives, interactive scenarios, and adaptive media elements, with human curators maintaining control over prompt design, content selection, and validation to ensure cultural accuracy and ethical integrity. Third, the generated outputs are integrated into immersive exhibition environments through technologies such as VR, AR, and multimodal interfaces, enabling embodied, participatory engagement rather than passive observation. Finally, visitor interaction data and user feedback are incorporated into an iterative refinement process, allowing both exhibition content and AIGC parameters to be adjusted over time. Through this structured workflow, AIGC functions as a supportive curatorial mechanism that enhances adaptability, inclusivity, and educational value while preserving cultural authenticity.

Research Methodology

1. Research Design

This paper chose a qualitative case study design to investigate the opinions and experiences of undergraduate art students who attended an AIGC-powered Foshan Lion Dance show. It is research based on a constructivist-interpretivist paradigm, meaning that the focus of the study was on meaning-making and cultural interaction as the key to learning about the intangible heritage in education. Qualitative approach is the most appropriate since the study is about how lived experiences, their subjective meanings, and reflections on the part of learners are to be interpreted. Such a method will make it possible to have a detailed and rich description of the cultural perceptions, creative interpretation, and interaction with factors of the AI-curated content, as well as factors that are not readily measured by using quantitative tools (Creswell & Poth, 2018).

2. Research Paradigm

The research rationale rests on constructivist-interpretivist paradigm where it believes that human interaction and culture constructs knowledge. The paradigm is also congruent with the research aims, which aims at gaining insights into the process through which students make sense of the intangible cultural heritage in the context of generative technologies. Interpretivism also substantiates a study of the subjectivity of a student and emotional reactions, which play the key roles in cultural learning and artistic creativity (Schwandt, 2015).

3. Participants and Sampling

The selection of the participants has been made using purposive sampling in order to ensure that people who have experience in cultural heritage and digital design were recruited. A group of 5 art and design students, who had previously received training in cultural heritage and digital design, were selected on purpose within the framework of Southern Chinese universities. The qualitative inquiry was suitable due to the small sample size, which allowed exploring the experiences in detail. The fifth participant was the point of data saturation once no new information was received, and it was clear that the identified themes are consistent and enough to address the research objectives. All respondents were actively studying Art and Design or other cultural studies disciplines and prior exposure to learning through exhibitions was in their studies. This provided a common academic foundation, allowed a mix of perspectives to better integrate how cultural preservation can, and should be combined with AI-generated

content. Demographically, the participants demonstrated different age groups and sexes that were undergraduate, postgraduate students. The recruitment continued till data saturation, and at this stage, there were no new insights that emerged making the process both deep and credible in terms of the identification of consistent themes.

4. Data Collection: Semi-Structured Interviews

The primary method of data collection was semi-structured interviews because they enable the interviewers to obtain rich and reflective accounts and be flexible in allowing them to explore themes as they surface (Kallio et al., 2016). The creation of an interview guide was based on the critical areas of the research, such as perceptions on authenticity, the level of engagement with AIGC content and emotional binding, exploration of artistic ideas, and the perception of learning consequences. The open-ended questions allowed participants to submit their ideas in their own words, which allowed exploring experience through a participant, led process. The semi structured interviews were done in two steps. The initial round was an introduction of the participants to the AIGC exhibition, and the second round was an exploration of the reflective thoughts of the participants on the interaction. Each interview was 45-60 minutes long and was audio-recorded and transcribed word-to-word. To achieve credibility, transcripts were sent back to the participants to be member checked.

5. Data Analysis: Reflexive Thematic Analysis

Reflexive thematic analysis as stated by Braun and Clarke (2006) has been used in analyzing the data gathered in the interview. This approach has been selected due to the theoretical flexibility that it possesses and its ability to uncover the complexity of meaning patterns that cut across qualitative data. Reflexive thematic analysis acknowledges the active role of the researcher in the development of themes and conceptualising interpretation as an interactive and interactive process. The data analysis commenced with a stage of familiarization where transcripts were read and reread in order to thoroughly understand the material and background. Interpretation was done through reflexive thematic analysis (Braun and Clarke, 2006). Transcripts were read and familiarized with several times prior to the production of initial codes. The coding was done in two sets: in the first set, open coding was done to define descriptive patterns and then the coding was reiterated in the second set, where the connections between categories were refined through axial coding. Cultural preservation, interactivity, co-creation, pedagogy and inclusiveness were then grouped together under themes. The manual coding has been performed without NVivo to ensure close contact with data. Reflexivity was a focus of the process and the researcher repeatedly returned to transcripts to maintain consistency and richness in theme development.

6. Ethical Considerations

The research has been conducted under well laid down guidelines regarding ethics in a research involving human beings. The study was purely voluntary and everyone was made well aware of their rights to participate in it by anyone and could at any time, refuse to participate without reason or punishment. Before data was collected informed consent was approved and the participants had the knowledge on the purpose of the research, procedure to be performed as well as how their responses would be utilized. The issue of cultural sensitivity was considered with the Foshan Lion Dance, as special attention was paid to the influential representation of its traditions, in a respectful way.

Research Results

1. Codes

The recognised codes used in this study to analyse the responses are as follows:

Table 1 Identified Codes and their Description

Codes	Description
Cultural Preservation through AI	Focuses on how AIGC technologies can digitally document, recreate, and preserve Foshan lion dance traditions for future generations while ensuring authenticity.
Student Engagement and Interactivity	Examines how AI-powered interactive tools (e.g., VR/AR, generative media) can enhance art students' participation, motivation, and immersive learning in exhibitions.
Creative Co-Creation	Captures how students can collaborate with AIGC tools to generate artistic interpretations of lion dance (visuals, sounds, narratives), encouraging innovation while respecting cultural roots.
Pedagogical Value	Relates to how AIGC-based exhibitions can support art and design curriculum goals, skill development, and critical thinking in cultural heritage education.
Accessibility and Inclusivity	Concerns how AIGC exhibitions make Foshan lion dance more accessible to diverse learners (e.g., remote participation, adaptive learning modes) while broadening cultural reach.

Source: Author

1.1 Code 1: Cultural Preservation through AI

Code Cultural Preservation through AI reflects students' views on AIGC's role in safeguarding Foshan lion dance traditions, highlighting opportunities and limitations in dynamic, interactive cultural representation.

"The AI generative design tool in the exhibition allowed me to create my own lion head with cultural patterns. Using the algorithm gave me freedom, but I also noticed how much symbolism is embedded in the traditional designs...." (Participant 2)

"While the digital tools make it easy to see the performance repeatedly, I sometimes wonder if too much AI interpretation might change the cultural meaning. The lion dance is not just movement; it is spirit and history" (Participant 4)

"The AI-driven animation module helped me visualize the lion dance more vividly than photos. The motion synthesis wasn't flawless, but it captured enough rhythm to make me curious about its cultural origins" (Participant 5)

The findings indicate that students regard AIGC as a powerful tool for enhancing cultural preservation through visualization, repetition, and interactivity. Participant 2 noted that AI has the ability to animate static heritage, thereby fostering curiosity and deeper engagement. However, Participant 4 expressed concerns about authenticity, warning against an over-reliance on AI that could risk diminishing the cultural spirit and context of the Foshan lion dance. Conversely, Participant 5 emphasized the creative and educational potential of AIGC, particularly in enabling students to explore symbolic elements through design experimentation. These insights resonate with Khamis et al., (2024), who observed that while immersive digital heritage initiatives strengthen cultural engagement, they may also risk oversimplification if not carefully contextualized. Overall, students valued AIGC's role but stressed the importance of balancing innovation with cultural authenticity.

1.2 Code 2: Student Engagement and Interactivity

The code Student Engagement and Interactivity reflects how students experienced participation and immersion in the AIGC-powered Foshan lion dance exhibition, emphasizing the role of interactivity in sustaining attention, curiosity, and active learning.

“The VR-based lion dance simulation made me feel like part of the performance. I was not just watching I was moving with the rhythm, and that kept me focused longer than a normal exhibition” (Participant 1)

“The interactive storytelling feature gave me choices in how to explore the lion dance history. It felt more personal, like I was guiding my own learning journey instead of just reading museum panels” (Participant 3)

“Using the AI motion capture demo to mimic lion dance steps was both fun and challenging. It turned learning into a game, which made me stay engaged and want to practice more” (Participant 5)

The findings indicate that interactivity is central to student engagement in AIGC-powered cultural exhibitions. Participant 1 stressed immersion via VR simulation, enhancing focus and emotional connection. Participant 3 valued AI-driven storytelling, turning passive reception into self-directed learning. Participant 5 noted gamified motion capture, which boosted motivation through challenge and creativity. These insights echo Romanelli (2021), who argue that interactive technologies enhance learning by shifting visitors to experiential participation, and Jung et al. (2021), who highlight how interactivity in heritage contexts strengthens attention and recall. Overall, students viewed interactivity as a decisive factor making exhibitions more engaging and impactful than static displays.

1.3 Code 3: Creative Co-Creation

Creative Co-Creation captures students’ experiences of collaborating with AIGC tools to generate cultural content, where participatory design enhanced creativity, ownership, and deeper cultural learning. Student’s responses during interview were:

“The AI generative design platform let me create my own lion head patterns. It felt like a collaboration between me and the machine, and it helped me think differently about cultural symbols....” (Participant 2)

“I enjoyed customizing the lion dance visuals with the AI image generation tool. It gave me freedom to experiment with styles, but I also had to respect the traditional forms.” (Participant 4)

“The interactive co-creation module was inspiring it made me feel like an artist contributing to the exhibition rather than just a visitor.” (Participant 5)

Students’ responses revealed that creative co-creation with AIGC tools promoted active cultural engagement. Participant 2 emphasized that using AI encouraged innovative reinterpretations of traditional motifs, showing how technology can open new pathways for cultural storytelling. Participant 4, however, highlighted the need to balance creative freedom with authenticity, indicating that cultural integrity remains a key concern in digital co-production. Participant 5 described the transition from observer to contributor, gaining a sense of artistic ownership. Together, these insights suggest that co-creation with AI fosters creativity and agency while demanding careful negotiation of cultural authenticity.

1.4 Code 4: Pedagogical Value

The code Pedagogical Value reflects students' perspectives on the educational benefits of engaging with the AIGC-powered Foshan lion dance exhibition, particularly in relation to cultural learning, critical thinking, and artistic development.

"The exhibition helped me connect theory to practice. We often learn about heritage in class through readings, but the AI-based simulations made the lion dance feel tangible and relevant to my coursework" (Participant 2)

"As an art student, I felt the generative design platform encouraged me to think critically about symbolism in the lion head patterns. It wasn't just copying tradition, but learning how meaning is embedded in visual details" (Participant 4)

"The AI-curated storytelling sequence gave me historical context in a way that was easy to remember. I retained more knowledge compared to reading static texts because it combined narrative with visuals and interactivity" (Participant 5)

The results indicate that the AIGC-powered exhibitions may be said to have high pedagogical value as learning about culture becomes a practice-oriented and dynamic process. Participant 2 emphasized the role of AI simulations in connecting theoretical learning and practice with their commingling of classroom and interactive heritage education. Participant 4 focused on critical reasoning supported by generative design wherein the students do not ingest information passively instead, they examine cultural symbolism. Participant 5 emphasized the worth of AI-generated storytelling in helping to memorize and fully understand via multidimensional learning. Such insights find support in the Laurillard (2012) framework of digital technologies in education that suggests that interactive media can build on more advanced conceptual knowledge. Similarly, Economou and Meintani (2011) highlight that digital heritage tools promote constructivist learning by linking knowledge acquisition with active participation. Overall, students perceived AIGC exhibitions not just as cultural showcases, but as valuable pedagogical tools that enhance cultural literacy, creative practice, and knowledge retention in art education contexts.

1.5 Code 5: Accessibility and Inclusivity

The code Accessibility and Inclusivity reflects how students perceived the potential of AIGC-powered exhibitions to broaden participation in Foshan lion dance heritage, making cultural knowledge more approachable, equitable, and adaptable to diverse learning needs.

"The AI-driven translation tool let me access parts of the exhibition in English, which really helped since I struggle with some of Chinese terminology. It made the whole experience less intimidating." (Participant 2)

"I liked how the exhibition app could be used remotely. Even though I could not visit the full installation again, I could still interact with the lion dance models from home. It made learning more flexible." (Participant 4)

"The adaptive media features, like subtitles and simplified explanations, made it easier for people with different backgrounds to understand the dance. I felt it was designed for everyone, not just experts." (Participant 5)

The results point to the fact that accessibility and inclusivity were the main advantages of exhibition created with the help of AIGC. Participant 2 emphasized the importance of the AI translation tools due to eliminating the communication barrier and the subsequent expansion of understanding. Participant 4 placed the focus on remote access either by mobile applications to facilitate mobile engagement above and beyond the bricks and mortar space which comprises the museum. Participant 5 remarked that adaptive content like subtitles and simplified storyline helped adapt to inclusiveness and accommodate cultural and educational diversity. Taken together, these reactions show how AIGC can achieve damage control by democratising access to intangible heritage, with the potential to allow participation over linguistic, geographic and educational boundaries. These observations correspond to the findings carried out by Chrysanthi et al., (2021) that supporting the digital cultural heritage project enhances

inclusiveness through multimodal and adaptive learning platforms. Overall, students viewed inclusivity as a distinguishing benefit of AIGC, in that cultural preservation does not belong to a small cluster of people but rather is available to different communities.

Table 2 Summary of Themes, Evidence, and Interpretation

Theme (Code)	Supporting Evidence (Student Quotes)	Interpretation
1. Cultural Preservation through AI	“The AI animation helped me visualize the lion dance more vividly...” (P5)	AIGC can reanimate cultural practices, though overuse risks diluting authenticity.
2. Student Engagement & Interactivity	“The VR simulation made me feel like part of the performance...” (P1)	Interactivity sustains attention and emotional connection, shifting students from observers to participants.
3. Creative Co-Creation	“The AI design tool let me create my own lion head patterns...” (P2)	Co-creation fosters innovation and ownership, but requires careful negotiation of cultural integrity.
4. Pedagogical Value	“The simulations made the lion dance relevant to my coursework...” (P2)	Exhibitions function as pedagogical tools, linking classroom theory with immersive practice.
5. Accessibility & Inclusivity	“The adaptive media made it easier for different people to understand...” (P5)	Translation, remote access, and adaptive modes democratize access, ensuring broader cultural participation.

Source: Auhot

Conclusions & Discussions

1. Conclusions

This paper has discussed the ways in which Artificial Intelligence Generated Content (AIGC) can be transformed into dynamic and interactive exhibitions of Foshan lion dance with specific interests about learning, engagement, and creativity of the art students. The participants responses were analyzed and five main themes could be identified; cultural preservation by AI, engagement and interactivity, creative co-creation, pedagogical value, and accessibility and inclusivity. Results demonstrate that AIGC technologies have the potential to revitalize the traditional heritage through the reanimation of the Foshan lion dance that can be visualized in such a manner that it embodies rhythm, symbolism, etc. The opportunity to play with generative design and synthesize motion was appreciated by participants, with some expressing fear of inauthenticity, defining the need to find the mantra of balance in the interaction between innovation and cultural faithfulness. Interactivity was also found to be key to engagement, with VR, motion capture and storytelling making this experience change students who were merely viewers to active agents. Creative co-creation also allowed the learners to reinterpret traditional motifs and made cultural exploration their own, whereas accessibility features through translation, subtitles, and mobile platforms also allowed taking the learning process to wider backgrounds.

2. Discussions

This chapter discusses the findings of the study on how AIGC technologies can be applied to develop a dynamic, interactive exhibition centered on the Foshan lion dance for art students.

2.1 Objective 1: To explore how AIGC technologies can be applied to develop a dynamic, interactive exhibition centered around Foshan lion dance for art students

The research showed that learners, students saw AIGC as a force of transformation of the classical exhibition. Innovative animations, VR simulations and interactive story telling applications enabled the Foshan lion dance to be illustrated in ways that signified its vibrancy, rhythm and the symbolism. Participant 2 explained that the generative design tool AI provided an opportunity to make patterns on lion heads because she realized that traditional designs represent deeper symbolism. Participant 5 also pointed to the worth of animation based on AI use in demonstrating the rhythm of lion dance that prompted curiosity about their origins.

Nevertheless, Participant 4 also provided important reservations, cautioning against the importance of leaving room in the practice to ensure that the cultural meaning of the forms does not shift, as the problem of going too far with the AI interpretation of the app could sever the spiritual nature of the practice and the community spaces associated with it. This underlines the schizophrenic quality of AIGC: on the one hand, the concept offers new avenues to cultural preservation; on the other, it presents a hazard of misrepresentation unless used judiciously. Students, who were worried that AI might water down the spirit of the tradition, repeated the issue of authenticity. This is in line with Shi et al. (2025), who lay a heavy importance on cultural pedigree in digital expression, and UNESCO (2003), which lays a big importance on the preservation of intangible heritage to contextual respect.

2.2 Objective 2: To evaluate the educational and engagement outcomes of such an exhibition on art students' cultural understanding, creativity, and learning experience

The second goal presented clear indicators that the exhibitions based on AIGC can be an effective way to promote learning and interactivity. Compared to a natural experience, participant 1 focused on saying that the simulation of the VR lion dance was an embodied experience that enhanced focus and feelings. Participant 3 valued AI-based narrations because it made the learning process more individual and Participant 5 further described gamified motion capture that transformed learning into a fun and practice-oriented activity. This confirms the conclusion of Jung et al. (2021) in that interactivity in immersive heritage enhances the motivation, attention, and recollection.

Co-creation further fostered the students sense of creative development as well, including tasks like lion head design using AI to generate digital experimentation alongside symbolic learning. This reaffirms the view of Hooper-Greenhill (2007) that museums are supposed to be pedagogical landscapes where learners do the active construction of their meaning as opposed to being mere recipients of knowledge. It also echoes with Laurillard (2012) who stresses on the idea of technology being a design science which scaffolds creativity and reflective learning.

Interestingly, the issue of inclusivity became a valuable asset of education. AI translation, subtitles, and adaptive media helped to remove linguistic and cultural aspects of barriers, and the students found it helpful. This result correlates with the study by Roussou et al. (2021), who emphasize participatory museum technologies as a method of ensuring social inclusion. Practically, this implies that the AIGC exhibitions can expand the accessibility to the intangible heritage to different groups of students, even limited in previous knowledge in this field.

2.3 Objective 3: To identify both opportunities and challenges including issues of cultural authenticity, pedagogical value, and technical implementation in deploying generative curation

Although potentials on engagement, creativity, and accessibility were identified, the challenges remained. Most important of all was the problem of authenticity. Participant 2 regarded AI-assisted design as a collaborative experience that brought about innovativeness and Participant 5 believed that co-creation turned them into an artist as opposed to being a visitor. These experiences highlight how generative tools can be used to enable the audience to access the heritage as co participants and not mere recipients (Ray, 2024). But, authenticity was a continuing issue. The implication of this contradiction of innovation and preservation is evident in the stress of participant 4 on the necessity of respecting traditional forms as we customize AI generated visuals. This difficulty echoes with Hooper-Greenhill (2007), who states the idea that pedagogy in the museum should have the right balance between experimentation and obedience to cultural knowledge.

The inclusivity and accessibility came out as major opportunities as well. Participant 2 liked translation tools of AI that decreased language differences, Participants 4 and 5 liked remote access through their apps and mobile devices, and Participants 5 liked the adaptability of media tools that met the needs of learners with diverse cultural and educational backgrounds. These results correspond to the works by Chrysanthi et al. (2021), who emphasize that digital storytelling and multimodal interfaces widen access to heritage knowledge. Meanwhile, adoption requires assuring usability and bypassing technical barriers to adoption, including the costs of equipment and the problem of digital infrastructural lacks that was alluded to by participants who mentioned the demands of VR and motion capture systems on resources mentioned by respondents.

2.4 Based on codes

- The findings support the idea that interaction is at the heart of engagement, which is consistent with Jung et al. (2021), who showed that VR/AR applications enhance attention and recall in cultural tourism. Nonetheless, this work builds upon those results by demonstrating that generative AI facilitates gamified education and adaptive narratives that allow learners to control their cultural experience instead of absorbing a pre-determined virtual surrounding. This implies that AIGC could be more personalized than previous VR museum models that tended to focus more on spectacle than on long-term learning.

- Participants appreciated AIGC as a partner in the production of culture. This is in line with other results by Yang, Wei, and Xian (2025) who demonstrated that traditional woodblock prints could be revitalized with AI tools without sacrificing the style of traditional prints. However, in contrast to the earlier research on artifact reproduction, the current study emphasizes on student-led co-design, in which the learners perceived ownership and artistic control. What is new here is that creativity is connected to cultural empathy, which is not as evident in VR-based heritage initiatives.

- The reported pedagogical advantages such as connecting theory to practice, promoting critical thinking, and improving retention are consistent with the framework of design science as developed by Laurillard (2012), which involves the purpose of technology in scaffolding reflective learning. Although previous research on digital heritage tended to assess visitor experience (Economou & Meintani, 2011), this research paper illustrates direct curricular integration where AIGC exhibitions serve as continuations of classroom education. This makes generative curation at once an exhibition model and a pedagogical approach.

- Functionalities like translation, subtitles as well as distance access bring heritage learning to other communities. This aligns with that of Chrysanthi et al. (2021), who discovered multimodal storytelling expanded the participation in

digital heritage projects. The current investigation, however, goes an extra mile to prove the fact that inclusivity is not an additional quality of AIGC but also a fundamental benefit of the concept, particularly, the applications: international and multilingual classrooms.

Recommendations

Based on the findings, the following recommendations are proposed, with explicit consideration of the study's limitations and directions for improvement.

1. Balance Innovation with Cultural Authenticity

While the results demonstrate that AIGC enhances engagement and creative participation, the study also reveals a limitation in controlling the cultural accuracy of generative outputs. To address this shortcoming, developers and educators should collaborate closely with Foshan Lion Dance practitioners throughout the design and generation process. Cultural experts should participate in dataset curation, prompt formulation, and content validation to ensure that AI-generated materials preserve the symbolic, spiritual, and artistic integrity of the tradition. This procedure allows creative innovation to occur without distorting cultural meaning.

2. Integrate AIGC into Pedagogy through Structured Co-Creation

Although AIGC-supported exhibitions improved student participation, the findings indicate that learning outcomes vary depending on students' prior cultural knowledge and digital literacy. To improve consistency, AIGC should be systematically embedded into art and design curricula through scaffolded co-creation modules. These modules should combine theoretical instruction, guided design tasks, and reflective evaluation, enabling students to move from passive consumption to active cultural storytelling while maintaining academic and cultural rigor.

3. Promote Accessibility and Inclusivity while Addressing Participation Gaps

The study identifies accessibility as a strength of digital exhibitions, yet also notes limitations in reaching audiences with restricted technological access or diverse cognitive needs. Future exhibitions should incorporate multilingual translation, subtitles, remote participation options, and adaptive learning interfaces. Such procedures can reduce linguistic, geographic, and educational barriers, ensuring that digital heritage learning remains inclusive and equitable.

4. Ensure Ethical, Technical, and Cultural Sustainability

A key limitation identified in the findings concerns long-term sustainability, particularly the dependence on rapidly evolving technologies. To mitigate this risk, institutions should adopt UNESCO-aligned ethical safeguards for participatory heritage protection while investing in affordable VR/AR platforms and open-source AI tools. Establishing long-term partnerships with technology providers and cultural communities will support technical maintenance, ethical accountability, and cultural legitimacy over time.

Overall, this study suggests that AIGC can be effectively incorporated into education and exhibition practices through co-creation-oriented courses that foster creativity without undermining cultural originality, in line with

UNESCO's (2003) principles of participatory heritage safeguarding. By explicitly addressing limitations related to authenticity control, learner diversity, accessibility, and sustainability, these recommendations provide actionable pathways for improving future applications of AIGC in cultural education and museum contexts.

Limitations and Future Scope

1. Limitations

There are a few limitations to this study. The results rest on a small sample of five art students in Southern China and hence make sense only in the context of the Foshan Lion Dance. Though the results are insightful, they might not be quite applicable to other intangible heritage contexts where cultural, social, or pedagogical dynamics are different. The use of qualitative interviews also restricts the possibility of measuring the results of greater numbers of people. The gaps could be closed in future research through the use of quantitative techniques e.g. controlled experiments or survey based research to determine the extent to which AIGC exhibitions affect learning outcomes in a broader context. It might also be possible to test the flexibility of generative curation frameworks in a range of contexts through comparative studies across several cultural traditions. Further, more coherent mixed-method outcomes should be offered through the use of ethnographic fieldwork with merging measurable learning outcomes to offer greater validation and have a more holistic view on the role of AIGC in teaching heritage.

2. Future Scope

The limitations could be addressed in the future by employing mixed-methods strategies such as a survey study, interviews, and ethnographic work with art students, educators, and cultural custodians to generate better empirical evidence on the integration of AIGC into heritage approaches. It is essential to discuss ethical and governance systems to ensure the preservation of cultural authentic products and avoid oversimplification or commodification. Future mash-ups of technologists, anthropologists, and heritage professionals might forge culturally minded frameworks where innovation and preservation variant. Going beyond Foshan lion dance, it will be necessary to subsequently investigate the functionality of AIGC exhibitions in other types of cultural heritage around the world and make it at least possible, preferably scalable and inclusive. Moreover, joint ventures with governments, cultural institutions, and educational institutions might allow the sustainable inclusion, and the AR/VR and AIGC work in harmony: the potential of engaging and immersive cultural regeneration would be present.

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