GEORGE BROWN PRESS
JOURNALS, BOOKS & PROCEEDINGS

Journal of Literature and Arts Research

Article

Digital Revival of Cultural Heritage: Synergies between Traditional Architecture and Video Games

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Abstract: With the rapid development of digital media technology, video games, as an emerging cultural carrier, play an important role in the dissemination and protection of cultural heritage. Using the Chinese video game Black Myth: Wukong as a case study, this article explores the synergistic effect of video games in the digital revival of traditional Chinese architecture. The article first analyses the ways in which traditional Chinese architecture is reproduced in Black Myth: Wukong and how these elements enhance the game's cultural connotation and appeal. Subsequently, the article discusses how video games can help bring traditional architecture into the modern perspective by enabling players to experience and understand the cultural value and aesthetic characteristics of ancient architecture more intuitively and deeply through the game's interactivity and immersion. In addition, the article also discusses the shortcomings of the existing game mode of propaganda and dissemination of cultural heritage through video games. Finally, in response to the problems identified, this article proposes solutions to help relevant practitioners better utilise the video game platform to realise the digital protection and inheritance of traditional Chinese architecture. Through this study, it aims to provide new perspectives on the digital transformation of cultural heritage and provide practical guidance for game designers, cultural heritage protectors and policy makers.

Keywords: cultural heritage; ancient architecture; video games; digital renaissance

1. Introduction

Black Myth: Wukong is a 3A action role-playing game developed by China's Hangzhou Youke Interactive Technology Co. Ltd. Since its simultaneous global debut on 20 August 2024, the game has rapidly gained popularity and become a phenomenon in the global gaming market for its deep Chinese cultural heritage and superb game production. Based on the Chinese classic "Journey to the West", the game perfectly blends the image of the Monkey King with the aesthetics of traditional Chinese architecture through modern digital technology, providing players with a familiar yet novel world of Journey to the West. On its first day of launch, the game reportedly set a staggering record of over 4.5 million copies sold across all platforms, with a total sales value of over 1.5 billion yuan. The game's success lies not only in the game itself, but also in the fact that it serves as a cultural medium that inspires great interest and enthusiasm in traditional Chinese culture among players outside the world. The game's fine restoration of ancient architectural scenes, such as the Hanging Temple in Shanxi, China, Buddha Temple, etc., not only allows players to experience the grandeur and delicacy of ancient Chinese architecture in the virtual world, but also led to the reality of the ancient architecture of the tourism boom. 1:1 restoration of the famous monuments and attractions for the "Black Myth: Wukongs" to add a lot of colour. According to incomplete statistics, the game selected 36 attractions in the country as its background, such as Shanxi's Xiaoxitian, Jade Emperor Temple, Iron

Received: 10 February 2025
Revised: 13 February 2025
Accepted: 19 February 2025
Published: 21 February 2025

Buddha Temple, etc., Sichuan's Anyue Mingshan Temple, Chongqing's Dazu stone carvings, Hangzhou's Lingyin Temple, Lishui's Time Si Temple, etc. [1]. With the fire of "Black Myth: Wukong", the search heat and visitor volume of ancient building tourist destinations increased significantly. The Shanxi Culture and Tourism Department quickly responded by launching the "Follow the Wukong Tour of Shanxi" campaign, inviting tourists to experience the scenes in the game, an initiative that not only promotes the development of the local tourism industry, but also provides a new path for the inheritance and protection of traditional culture. The game also provides a new way for global players to learn about Chinese culture. In some foreign websites, game enthusiasts are actively posting related interpretation videos, and many foreign netizens have become interested in Journey to the West, ancient Chinese architecture and Chinese culture [2]. Black Myth: Wukong has thus become a bridge connecting traditional culture and modern technology, gaming entertainment and tourism economy, demonstrating the great potential and synergy of digital revival of cultural heritage.

Against this background, this paper aims to explore how Black Myth: Wukong has helped bring traditional Chinese architecture into the limelight and into people's lives through the power of digital media, and the cultural and economic benefits behind this phenomenon. By analysing the game and the tourism boom of ancient architecture, the paper will reveal the complementary relationship between cultural heritage and the modern entertainment industry, and how this synergy opens up new possibilities for the preservation and dissemination of traditional culture.

2. Traditional Architecture in Video Games

2.1. History of the Integration of Video Games and Architecture

The history of video games has its roots in the late 1940s, when scientists began developing simple game programs on mainframe computers. Subsequently, as technology advanced, video games underwent an evolution from arcades to home consoles to personal computers and mobile devices. And the popularity of the Internet in the 1990s fueled the development of online gaming. In the 21st century, with the popularity of smartphones and the emergence of VR/AR technology, video games have become more diverse and immersive and have become a major cultural phenomenon worldwide.

In the history of video games, architecture has served as an important cultural element whose incorporation into game scenarios dates back to the early days of arcade games and home consoles. Games such as Space Invaders, Street Fighter, and Teenage Mutant Ninja Turtles demonstrate the early use of architectural elements in video games. With advances in gaming technology and graphic processing power, game developers have begun to pay more attention to architectural detail and historical accuracy in their games as a way to enhance the immersion and cultural value of their games.

From its humble beginnings as a simple entertainment tool, the video game industry has evolved into a complex system that integrates technology, art and culture. Modern video games not only provide a rich interactive experience, but also incorporate a variety of elements such as narrative, music, and visual art, making them one of the most popular forms of contemporary entertainment. Overall, architectural elements in video games have become an important part of game culture, they not only provide a rich visual experience for the game, but also provide a way for players to understand and experience different architectural styles and cultural backgrounds. It is believed that with the development of game technology, we will see more detailed and diversified architectural elements being incorporated into games in the future, bringing players a more realistic and rich gaming experience.

2.2. Traditional Architectural Applications in Video Games

As a cultural medium, video games not only provide an entertainment experience, but also become an important platform for inheriting and displaying traditional architectural culture. The beauty of traditional ancient architecture shown by video games, on the one hand, increases the connotation of the game while promoting traditional culture, and on the other hand, it is also a digital reconstruction and protection of ancient Chinese architecture in the process of modernisation and development [3]. The following are a few representative cases of architectural modelling in video games, which beautifully reproduce real-world architectural heritage and enhance the players' knowledge and experience of cultural heritage through virtual environments.

1) Assassin's Creed series: The game series is renowned for its accurate recreation of historical buildings. In Assassin's Creed: The Revolution, the use of 3D modelling, photogrammetry and laser scanning technologies for Notre Dame de Paris provided an important reference for the reconstruction of Notre Dame de Paris after the fire. The digital restoration of Parisian neighbourhoods and landmarks in the game demonstrates the potential of gaming technology for cultural heritage preservation.
2) Black Myth: Wukong: The game features 36 sites throughout the country, and many of the game's ancient buildings, statues and mural elements are "photoshopped" to showcase Chinese aesthetics and traditional cultural elements. The architectural aesthetics of the game, such as the stone pagoda, the Guanyin Zen garden, the climbing dragon gate, etc., are the deep excavation and high restoration of the traditional Chinese cultural theme, which makes this large-scale game, which mainly focuses on the theme of traditional Chinese culture, have a national vitality. The success of Black Myth: Wukong lies not only in the game itself, but also in how it inspires players to take an interest in the ancient buildings that appear in the game. The game selected 36 sites in China as its backdrop, 27 of which were from Shanxi, and the high level of recreation of these ancient buildings became a highlight in the game. The release of the game triggered a wave of "offline ancient building exploration fever". According to reports, the search heat in Shanxi province increased by more than 10% compared to the previous day, while the search heat in some cities increased by 20%. In particular, the Xiaoxitian Scenic Area in Xi'an County reportedly saw a 5,884 per cent year-on-year increase in Jitterbug group purchase orders during the National Day. In addition, the Shanxi Provincial Department of Culture and Tourism also launched the "Follow the Wukong Tour of Shanxi" campaign, which further promoted the development of tourism.

In addition, different types of popular games in China, such as "Against the Current", "Fantasy Journey to the West" and "Hundred Scenic Views of Jiangnan", include a large number of symbols and elements of traditional Chinese culture. By cleverly integrating symbols and elements of traditional Chinese culture, such as traditional architectural culture, traditional sword and knife culture, traditional handicrafts and traditional heroes' culture, etc., in different types of games, the players can be immersed in an ancient atmosphere and mood constructed by the elements of traditional Chinese culture directly after entering the game. This enables players to immerse themselves in the ancient atmosphere and mood constructed by traditional Chinese cultural elements directly after entering the game [4].

These cases show that video games have become an important platform for the transmission and presentation of architectural cultural heritage. Through high-precision modelling and interactive experiences, the games not only provide players with an immersive historical and cultural experience, but also offer a new way for the preservation and dissemination of cultural heritage. With the advancement of technology and the expansion

of creativity, video games will play a greater role in the preservation and transmission of architectural cultural heritage in the future.

3. Traditional Chinese Architecture in the Black Myth: Wukong

3.1. Sources of Game Framing

Black Myth: Wukong is a 3A game independently developed by a Chinese team, whose development team visited many provinces and regions in China to investigate and highly recreate many ancient buildings in the game. Traditional Chinese architectural elements were deeply integrated into the design process, which reflects the game design team's respect for cultural heritage and innovation.

The pre-game design team conducted in-depth research on traditional Chinese architecture to ensure that the architectural elements in the game could truly reflect the aesthetic features and cultural connotations of ancient Chinese architecture. Field trips, historical literature research and exchanges with architectural experts were used to gain design inspiration and ensure the accuracy of architectural details. Team members visited many provinces and regions in China and conducted high-precision scans of hundreds of temples and monuments to recreate these scenes in the game at a 1:1 scale.

In the selection of scenes, the game design team focuses on the combination of scenes and the game plot, as well as the role of architectural elements in enhancing the game atmosphere and player experience. The team chose a number of representative ancient buildings as the prototype of the game scenes, including the ancient architectural complexes in Shanxi, the Dazu stone carvings in Chongqing, and the Twin Pagodas of the Kaiyuan Temple in Quanzhou, Fujian, etc. According to incomplete statistics, there are 36 scenic locations in the game, of which 27 are from Shanxi. These buildings were not only selected for their unique aesthetic value, but also adopted by the design team because of their importance in traditional Chinese culture.

Through precise fieldwork, in-depth historical research and technological innovation, the game design team of Black Myth: Wukong has successfully integrated traditional Chinese architectural elements into the game, providing an immersive gaming experience for the players while contributing to the dissemination and preservation of traditional culture. This process not only reflects the team's respect for cultural heritage, but also demonstrates the potential of games as a cultural communication medium.

3.2. Reasons for the High Level of Game Reproduction

One of the highlights of the game design of Black Myth: Wukong is the detailed and good-looking models, which the game team has designed and produced using conventional 3D software, thanks to the following technological advances and the maturity of the production process.

1) High-precision three-dimensional scanning technology

The point cloud data of ancient buildings obtained by laser scanning is of high accuracy, which can meet the requirements of mapping and high-precision archiving, so it is widely used in practice [5]. However, laser scanning equipment is expensive and complicated to operate, which makes it difficult to popularise and promote in the practice of grassroots cultural conservation work [6]. The game development team used high-precision 3D scanning technology to scan hundreds of temples and monuments in the country in the field, obtaining accurate 3D data of the buildings, including size, shape and texture. This technology not only shortens the modelling time, but also reduces the number of errors and modifications in the modelling process, improving the accuracy and efficiency of modelling. In addition, the professional 3D modelling team has eased the work pressure of heritage conservationists.

2) Powerful game engine support

Black Myth: Wukong is developed on Unreal Engine 5, which offers powerful performance, combining advanced technologies such as Live-Scan with Ultra HD Texture Rendering, Lumen Full Dynamic Global Lighting, Spatial Computing Technology, Panoramic Ray Tracing, 3D Real-Time Rendering, and more. In particular, Nanite technology, which allows loading ultra-high precision models, makes the geometry more realistic and detailed.

3) Advanced lighting and rendering techniques

The Lumen technology in the Unreal 5 engine provides excellent lighting effects for Black Myth: Wukong, applying dynamic global lighting and significantly optimising the lighting model. In addition, NVIDIA's panoramic ray tracing technology provides the game with extremely realistic graphical effects, including soft shadows, reflections and focal dispersion in water, and lighting effects inside caves.

4) Application of AI technology

Black Myth: Wukong employs AI technology in a number of areas, including NPC behaviour, combat systems, and environment simulation, to enhance the game's interactivity and realism. For example, enemy AI is trained through machine learning algorithms so that it can learn the player's battle patterns and react accordingly.

High-precision scanning, Unreal Engine 5 and AI technology have enabled Black Myth: Wukong to achieve an extremely high level of detail and visual impact in its modelling, providing an immersive gaming experience for players.

3.3. Game Highlights

Black Myth: Wukong has exploded onto the global scene with its own excellent design capabilities, thanks to several factors:

Firstly, the combination of deep cultural heritage and modern technology: Black Myth: Wukong is based on the classic Chinese literary work Journey to the West, and has successfully attracted the attention of players around the world by deeply excavating and meticulously presenting traditional Chinese culture. The game team has also made bold attempts in cultural narrative and character design, reinterpreting the Journey to the West combining the classic story with modern technology to show the traditional Chinese aesthetics and cultural connotations. Every detail of the game strives to restore the original, such as the image of the Monkey King with clear hair, which not only aroused the emotional resonance of domestic players, but also won the recognition of international players.

Second, superb technical support and visual effects: the game uses the industry's most leading Unreal Engine, with advanced light and shadow tracking technology, physics simulation and environment rendering, to achieve high-precision modelling of characters and realistic and detailed game scenes. Realistic light and shadow effects and dynamic weather systems all create an immersive and immersive experience for players.

Finally, rich interactive and exploratory elements: In the game, players are free to explore from the lush Mountain of Flowers and Fruits to the vast Yellow Wind Ridge, filled with the glamour of ancient Chinese mythology. The game world is designed to allow players to interact with the environment, adding to the fun and depth of exploration.

In addition, many players spontaneously share their gaming experiences on social platforms, showing beautiful screenshots and exciting video clips. This interaction not only increases the life cycle of the game and player loyalty, but also promotes the spread of culture. The popularity of the game directly drives the consumption of game-related products, including hardware devices and peripheral products. Some brands have even co-operated with the game, such as Luckin Coffee's "Black Myth: Wukong Teng Yun Americano", which not only brings traffic to the brand, but also adds more cultural added value to the game.

With the development of AI artificial intelligence technology, the application of AI technology in games is becoming more and more widespread, not only limited to the intelligence of NPCs, but also playing a huge potential in the optimisation of game graphics and experience. With the assistance of AI technology, game developers can quickly generate diverse level designs and character settings and monitor player behaviour in real time so as to make dynamic adjustments to the game. By combining traditional culture, modern technology, rich interaction and community interaction, Black Myth: Wukong has successfully attracted global players and become a phenomenal gaming brand.

4. Synergistic Approaches to Traditional Architecture and Video Games

4.1. Interactive Cultural Synergy Based on the Internet Model

As an emerging medium, video games have not only inherited the interactive cultural system constructed by the Internet and other new media, but have also innovated and developed on this basis. The immersive experience provided by games enables players to devote themselves to the story world and character emotions of the game, and this unique sense of participation and experience opens up a brand-new path for cultural dissemination and identification.

As a cultural communication medium, the interactivity and immersion of video games are two core elements that work together to enable players to experience and understand the cultural value and aesthetic characteristics of ancient architecture in a more intuitive and in-depth way. The architectural elements in the game, through digital restoration, immersive experience, and the integration and interaction of the industrial chain, provide a boost to the digital inheritance of traditional culture. These technological advances have spawned a large number of excellent works that are well-produced, profound in content, and highly culturally infectious and artistically expressive, and have been widely acclaimed by young and middle-aged groups.

In addition, video games provide new vigour for the transmission and preservation of traditional cultural heritage in the digital age. Cultural heritage games are an important tool for cultural education; they provide an engaging and interactive way to educate people about the importance of preserving cultural heritage. By using video games to assess the social impact of a cultural heritage site, a better understanding of the importance of that cultural site to the local community and wider society can be achieved.

It can be seen that the intersection of video games and traditional culture lies in its ability to present traditional cultural elements to modern audiences in a new form through modern technical means, enhancing the vitality and influence of cultural heritage. This intersection not only provides a new platform for the modern dissemination of traditional architecture, but also provides a new way of cultural experience for global players.

4.2. Synergy Between Cultural Experience and Transmission of Cultural Values

The well-designed interactivity and immersion of the game are key factor in promoting players' perception and understanding of the cultural values of traditional architecture. Among them, interactivity is one of the core features of video games, which allows players to communicate and interact directly with elements in the game world, enhancing the sense of cultural engagement. In Black Myth: Wukong, players are not only able to control their characters to traverse a variety of levels designed based on real ancient buildings, but also to interact with these architectural elements. For example, players may need to unlock ancient mechanisms or jump on the eaves of temples. These interactive designs allow players to experience the spatial layout and architectural wisdom of ancient buildings as if they were in the buildings themselves. Unlike traditional interactive methods for digital heritage assets, game creators are able to provide players with a high degree of freedom of play, which is not possible in film, television, or on-site exhibition viewing [6]. This interactivity not only enhances the fun of the game, but also allows the complex

structure and exquisite craftsmanship of traditional buildings to be perceived and operated by players in the game, thus deepening their knowledge and understanding of these buildings.

Secondly, immersion is another key factor in attracting players to video games, which bring them into a virtual world through high-quality graphics, sound and storyline. In Black Myth: Wukong, the game utilises advanced graphic rendering techniques and sound design to recreate the grandeur and sophistication of ancient Chinese architecture. Each adventure in the game is like a journey through time and space as players experience first-hand the wisdom of ancient craftsmen and the beauty of architectural art. This sense of immersion allows players to become not just onlookers, but experiencers and disseminators of traditional culture.

Once again, Black Myth: Wukong has helped the transmission of cultural values through its interactivity and immersion, providing a strong impetus for the modern dissemination of traditional architecture. The architectural elements in the game have fuelled the digital transmission of traditional culture through digital restoration, immersive experience and the integration of the industrial chain. These technological advances have spawned a large number of excellent works that are well-produced, profound in content, and highly culturally infectious and artistically expressive, and have been widely acclaimed by young and middle-aged groups.

Through its interactivity and immersion, Black Myth: Wukong effectively promotes players' perception and understanding of the cultural values of traditional Chinese architecture. The game not only allows ancient architecture to be reborn in the digital world, but also provides a brand new way of cultural experience for players around the world, enabling traditional architecture and culture to be revitalised in modern society.

4.3. Synergies Between Digital Approaches and Cultural Communication

Digital cultural heritage models have profoundly changed people's knowledge and attitudes towards cultural heritage through education, economy, social impact and other aspects, and have promoted the preservation and transmission of culture. Cultural heritage in video games has spread culture through games and brought help and change to people's lives, mainly in the following aspects:

1) Education and cultural dissemination: Digital cultural heritage models enable players to gain a deeper understanding of history and culture through immersive experiences and interactive narratives. For example, the architectural details and historical background of the game not only enhance players' cultural awareness, but also stimulate their interest in cultural heritage. This educational function has led to the effective dissemination of awareness of cultural heritage preservation among young people and promoted the building of cultural self-confidence.
2) Stimulating the desire to explore: By recreating real cultural heritage in games, players often develop a desire to explore the real locations shown in the game while enjoying the game. For example, Black Myth: Wukong successfully triggered players' attention to ancient Chinese architecture, and many players chose to go on field trips to relevant historical sites after experiencing the game, thus promoting the development of tourism.
3) Economic benefits: The digital cultural heritage model not only enhances cultural awareness, but also directly drives the economic growth of the region concerned. After the release of The Black Myth: Wukong, tourism in Shanxi Province grew significantly, with orders for the Xiaoxitian scenic spot during the National Day increasing by nearly 6,000 per cent year-on-year. This increase in economic benefits not only brought considerable local income, but also promoted the protection and maintenance of cultural heritage.

4) Social impact and cultural identity: Digital cultural heritage models have enabled wider and deeper dissemination of cultural heritage through gaming. Research shows that 73 per cent of consumers have gradually developed a social consensus to "embrace" the digitisation of cultural heritage. This sense of identity not only strengthens people's sense of belonging to their own culture, but also promotes understanding of and respect for cultural diversity.
5) Technology and innovation: The application of digital technology has led to more diversified ways of protecting and disseminating cultural heritage. Through virtual reality (VR) and augmented reality (AR) technologies, the display of cultural heritage has become more vivid and intuitive, enhancing the public's sense of participation and experience. This technological innovation not only provides new means for the protection of cultural heritage, but also opens up new paths for cultural dissemination.

We can see that video games combined with cultural heritage not only educate the public and increase knowledge of history and architecture, but also stimulate interest in offline exploration, which leads to the development of tourism and provides a new impetus for the preservation and dissemination of cultural heritage.

5. Shortcomings of Existing Synergistic Approaches

5.1. Superficialisation of Cultural Heritage Protection

While the incorporation of cultural heritage elements such as ancient buildings in video games can help raise public awareness of cultural heritage, such integration often remains at the surface level, lacking in-depth interpretation of the cultural connotations and historical background. Players may only be attracted by the visual effects of the game and lack sufficient understanding of the cultural value and conservation significance behind it. Therefore, how to convey the connotation of cultural heritage more deeply through games and raise public awareness of conservation is an aspect that needs to be strengthened in game design.

Furthermore, despite the positive role played by video games in cultural dissemination and education, there are still limitations to their impact. On the one hand, the educational content of games tends to focus on specific themes or historical periods and lacks a comprehensive and systematic introduction and interpretation of cultural heritage. In addition, the age and cultural backgrounds of the game player groups vary widely, resulting in limited depth and breadth of games in cultural dissemination. Therefore, how to design more inclusive and educational game content that can reach a wider audience is an important challenge for existing game models.

5.2. Online Interaction and the Absence of a Third Space

Although games such as Black Myth: Wukong have achieved significant results in cultural communication, they have failed to adequately create an online "third space", i.e. a virtual platform for social and cultural exchange. This third space can provide players with a place to communicate with each other besides the game itself, enhance the connection between players, and promote in-depth discussion and sharing of game culture. Early on, players can use online forums, community activities, or in-game social functions, where players can share their gaming experiences, discuss game strategies, and exchange their understanding of game culture, thus forming an active gaming community. Such a community can not only increase the stickiness of the game, but also promote the dissemination and discussion of game culture. However, this model has existed for a long time and does not bring people a sense of freshness. This time, the game to get through the achievement "destiny people" can be free to visit many scenic spots is a good model, that is, the combination of online and offline, online and offline connection. The best players can rest, communication, entertainment, trading, etc. in the third space of the game, simi-

lar to the real online society, and at the same time, a certain amount of achievements obtained online can also correspond to the actual exchange and consumption online. To a certain extent, this solves the evaluation that some people think that video games are meaningless.

5.3. Insufficient Development of the Depth of Cultural and Educational Functions

Although video games have the potential to disseminate cultural heritage, the current game mode is still insufficient in the in-depth development of cultural and educational functions. Games can be designed with more educational content, such as in-depth explanations of historical backgrounds, detailed descriptions of architectural features, and dissemination of cultural traditions, to help players understand and learn about cultural heritage more comprehensively. In addition, the game can also co-operate with the education department to introduce the game into the classroom as a teaching tool, so that the game can become an important carrier of cultural dissemination and education.

6. Ideas and Solutions

In response to the shortcomings of the existing video game model, this chapter will propose a series of solutions and implementation strategies aimed at deepening the transmission of cultural heritage, enhancing online interaction and the construction of a third space, as well as expanding the depth of cultural and educational functions.

6.1. Deepening the Transmission of Cultural Heritage

In order to effectively solve the problem of superficial presentation of cultural heritage in video games, this study proposes a series of strategies to deepen the transmission of cultural heritage. Firstly, by embedding educational modules or designing specific tasks in the game, in-depth explanations of the historical background and cultural connotations are provided as a way to enrich players' cultural knowledge. Second, interactive educational content, such as simulated archaeological excavations and interactive levels such as historical event reenactments, are developed to enhance players' participation and learning interest. In addition, interdisciplinary cooperation with historians and cultural scholars is recommended to ensure the accuracy and educational value of the game content, while introducing diverse perspectives and in-depth interpretations. Finally, adaptive learning paths and customised content are provided according to the age and cultural background of the players to meet the specific needs of different groups of players, so as to achieve in-depth delivery and effective education of cultural heritage. These measures aim to make the digital transmission of cultural heritage more in-depth and comprehensive through the platform of video games.

6.2. Building Online Interactions and Third Spaces

In order to compensate for the lack of online interaction and third space, this paper proposes a comprehensive strategy that aims to enhance interaction and cultural exchange among players by building a rich online social platform. Firstly, it is suggested to create a virtual social square in the game to provide a space for players to share their gaming experience, exchange cultural insights, and conduct virtual transactions. Secondly, by realising online-offline linkages, such as unlocking offline benefits through game achievements, players are incentivised to extend online activities to offline, e.g. free or discounted visits to cultural heritage sites. In addition, the third space should be equipped with diversified functions, including virtual museum guided tours, online lectures and cultural workshops, to enrich players' social and cultural experiences. Finally, community-driven content creation should be encouraged by allowing players to create and share original content, such as player stories and artworks, in the third space, thereby enhancing com-

munity vibrancy and cohesion. Together, these strategies aim to create a diverse and interactive third space that promotes cultural exchange and community building among players.

6.3. Expanding the Depth of Cultural and Educational Functions

In order to deeply explore the potential of video games in cultural education, this paper proposes a series of measures to strengthen the educational function of games. Firstly, it is suggested that educational content be embedded in games, for example, through character dialogues and mission background introductions, to teach players about cultural heritage. Secondly, it is advocated to co-operate with the education sector to introduce games into the classroom as a teaching tool, and to design courses and activities related to cultural heritage, so that students can enjoy the fun of the game and learn cultural knowledge at the same time. In addition, develop versions of games specifically for education, such as history-themed games, which tell the story of historical events through the game, so that players can learn about history while being entertained. Finally, an evaluation and feedback mechanism is set up to collect feedback from players on a regular basis to assess the effectiveness of the educational content and make adjustments and optimisations based on the feedback, so as to ensure the depth and quality of the game in terms of cultural education. The implementation of these measures will make video games an effective platform for the dissemination and education of cultural heritage.

7. Conclusion

As an emerging medium of cultural communication, video games have great potential to educate and inspire the public, especially the younger generation. By deepening the transmission of cultural heritage, enhancing online interaction and the construction of a third space, and expanding the depth of cultural and educational functions, video games can be a powerful tool for cultural heritage preservation and dissemination. I expect that the findings and recommendations of this study will provide valuable insights for game developers, cultural heritage preservationists and educators to jointly promote the positive development of video games in the field of cultural heritage.

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