

# Challenges and Strategies in Transmitting the Cultural Genes of Traditional Chinese Sports to the Digital Generation

Yuxiang Wang

Assistant Lecturer, Xuzhou College of Industrial Technology, Xuzhou, China, 221140

**Keywords:** China Traditional Sports; Cultural Genes; Digital Generation; Challenge; Strategy

**Abstract:** At a time when the wave of digitalization has a profound impact on cultural communication, China traditional sports, as a national treasure bearing rich cultural genes, is facing a brand-new task in its transmission to the digital generation. The purpose of this article is to deeply discuss the challenges encountered in the process of transferring China traditional sports culture genes to the digital generation, and to seek practical coping strategies. This article analyzes the genetic connotation of China's traditional sports culture, including philosophical thoughts, moral concepts, aesthetic tastes, etc., and analyzes the characteristics of behavior habits, cultural consumption and social patterns formed by the digital generation under the influence of the growth environment. It is found that the impact of digital technology, differences in cultural context and insufficient education system have become the main obstacles to the transmission of cultural genes. Based on this, strategies such as innovating communication mode, optimizing educational integration and strengthening cultural identity should be adopted to promote the effective inheritance and development of China traditional sports culture genes in the digital age.

## 1. Introduction

With the rapid development of digitalization, all levels of society are undergoing profound changes, and the field of cultural communication is no exception [1]. The rapid development of digital technology has greatly changed the way people obtain and exchange information and created a brand-new cultural ecology [2]. As an important part of the cultural treasures of the Chinese nation, China traditional sports bear rich cultural genes, covering unique philosophical ideas, moral concepts and aesthetic tastes [3]. However, under the background of the digital age, how to effectively transmit these precious cultural genes to the digital generation growing up in the digital environment has become an important topic to be studied and solved urgently.

Digital generation usually refers to people born after the widespread popularization of digital technology. They grew up in an era of highly developed information technology, and digital devices and networks are an indispensable part of their lives [4]. This generation shows completely different characteristics from previous generations in behavior habits, values and ways of accepting culture [5]. On the one hand, digital technology provides an unprecedented opportunity and platform for the transmission of traditional sports culture genes in China [6]. On the other hand, the huge differences between digital culture and traditional sports culture make traditional sports culture genes face many challenges in the process of transmission.

It is of far-reaching theoretical and urgent practical significance to study the transmission of China traditional sports culture genes to the digital generation. Theoretically, it is helpful to enrich and deepen the theoretical system of cultural communication, physical education and other disciplines, and further explore the cultural connotation of traditional sports in China. From a practical point of view, it can provide practical strategies for the inheritance and development of traditional sports in China in the digital age, enhance the self-confidence of national culture and promote the prosperity and revival of traditional culture. Based on this, it is particularly important to explore the challenges and strategies of transferring the cultural genes of China traditional sports to the digital generation.

## 2. Gene and digital generation characteristics of traditional sports culture

Chinese traditional sports have a long history and contain rich and unique cultural genes. These cultural genes are vivid manifestations of traditional Chinese culture in the field of sports, reflecting the thinking mode, value orientation, and aesthetic pursuit of the Chinese nation [7]. From a philosophical perspective, traditional Chinese sports are deeply influenced by Confucianism, Taoism, and Buddhism. The Confucian advocacy of the "Doctrine of the Mean" emphasizes the harmonious development of body and mind in traditional sports, and does not excessively pursue competitive results; The Taoist concept of "unity of heaven and man" has prompted traditional sports to emphasize the integration of humans and nature, such as Tai Chi which imitates natural movements to achieve physical fitness; The "meditation" philosophy of the Shi family has injected spiritual cultivation into traditional sports. In terms of moral concepts, traditional sports emphasize the standardization of "etiquette", emphasizing respect for opponents and adherence to rules. For example, ancient archery competitions had strict etiquette procedures [8]. In terms of aesthetic taste, traditional sports exhibit a unique Eastern charm, with movements emphasizing smoothness and balance of rigidity and flexibility, such as the body movements and moves in martial arts performances, which are highly artistic and aesthetically pleasing.

The digital generation has been deeply influenced by digital technology during their growth process, forming distinct characteristics. The differences in cultural acceptance between the digital generation and the traditional generation are shown in Figure 1.

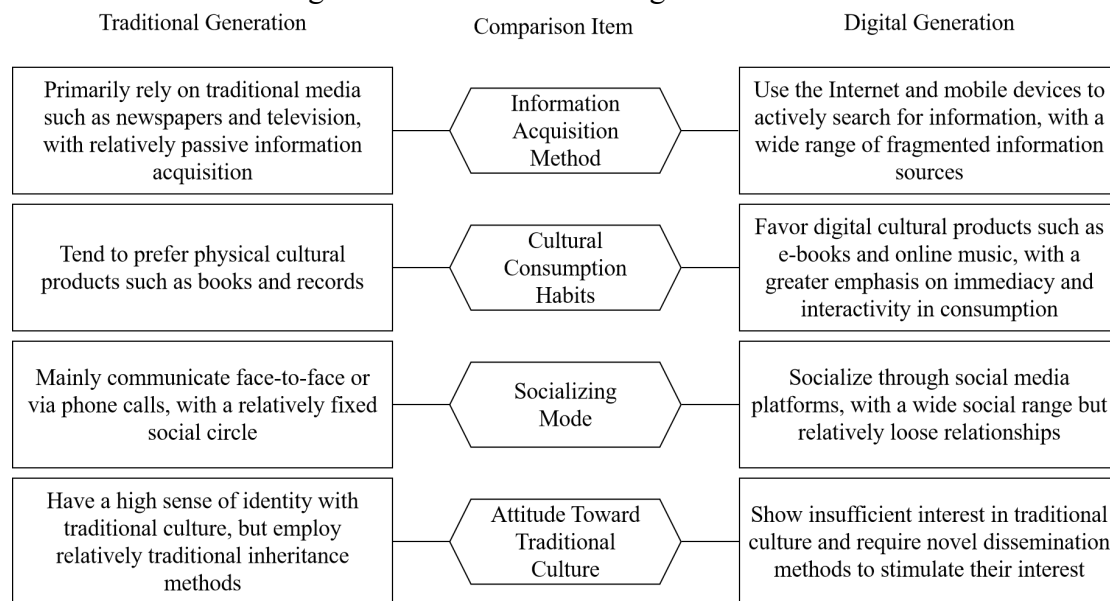


Figure 1 Cultural Acceptance Characteristics of Digital Generation and Traditional Generation

As can be seen from Figure 1, the acquisition of information in digital generation and the change of cultural consumption habits have brought challenges to the transmission of traditional sports culture genes in China. They are used to fast and fragmented information reception, and the profound connotation of traditional sports culture is difficult to be understood in a short time [9]. At the same time, its social mode and attitude towards traditional culture also require more interactive and innovative ways to attract the attention and participation of the digital generation when transmitting traditional sports culture genes, so as to realize the effective transmission of cultural genes.

## 3. The challenge of cultural gene transmission to digital generation

In the digital age, it is not easy to transfer the cultural genes of China traditional sports to the digital generation, and it faces many severe challenges [10]. These challenges cover many levels and seriously hinder the inheritance and development of traditional sports culture genes in the digital generation. First of all, the impact of digital technology should not be underestimated. With

the rapid development of digital technology, various forms of virtual entertainment, such as video games and webcasts, have emerged one after another. These virtual entertainments attract the attention and participation of a large number of digital generations with their high immersion, instant feedback and rich interactivity. In contrast, traditional sports activities often require more time and energy, and the feedback is relatively lagging behind, which leads to a significant decrease in the participation of digital generation in traditional sports. For example, in a popular competitive video game, players can participate in the battle anytime and anywhere through their mobile phones or computers, and they can get the winning or losing results and corresponding rewards in a short time, while participating in a traditional martial arts practice requires not only a special venue and time, but also long-term persistence to realize the cultural connotation and physical changes. Secondly, cultural context differences become a big obstacle. Digital culture is characterized by fast, concise and fragmented information dissemination, emphasizing immediate sensory stimulation and entertainment effects. However, the traditional sports culture in China contains profound historical background and philosophical thoughts, and its cultural expression is often subtle and reserved, which requires in-depth study and understanding. This huge difference in cultural context makes it easy for digital generations to have difficulties in understanding and cognitive barriers when they are in contact with traditional sports culture. Furthermore, there are shortcomings in the education system.

In the current school education system, traditional physical education has a certain curriculum, but influenced by exam-oriented education and other factors, its teaching content often focuses on skill training, and the excavation and teaching of the cultural genes behind it is not deep enough. Teaching methods are also relatively traditional, lacking effective integration with digital technology, and it is difficult to stimulate the learning interest of the digital generation. Figure 2 shows the impact of these challenges on gene transmission of traditional sports culture.

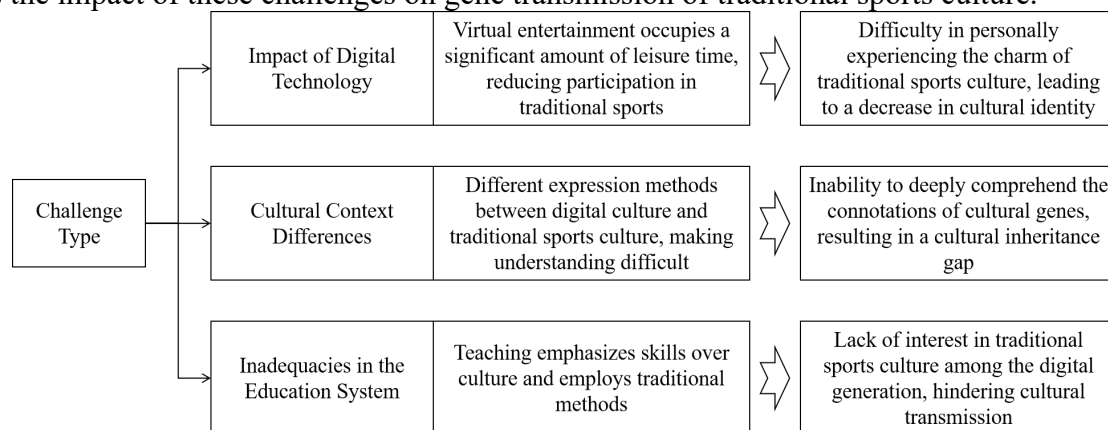


Figure 2 The Impact of Challenges in Cultural Gene Transmission

It can be seen from Figure 2 that these three challenges have had a negative impact on the transfer of China traditional sports culture genes to the digital generation from different aspects. Without effective response, the inheritance and development of traditional sports culture genes in the digital age will face a more severe situation.

#### 4. Strategies for transmitting cultural genes to the digital generation

In the face of many challenges in transferring China traditional sports culture genes to the digital generation, it is imperative to construct effective strategies. By innovating communication mode, optimizing educational integration and strengthening cultural identity, it is expected to break through the predicament and realize the effective transmission of cultural genes.

Innovative communication mode is the primary strategy. The digital age provides rich technical means for communication, and we should make full use of these resources. For example, with the help of the short video platform, short, concise, vivid and interesting traditional sports culture videos are produced to show the wonderful moves of martial arts and the interesting gameplay of

traditional sports games, attracting the attention of the digital generation. Using virtual reality (VR) and augmented reality (AR) technology, users can feel the scenes and atmosphere of traditional sports, such as simulating the scenes of ancient archery competitions, and enhance the sense of experience.

It is very important to optimize educational integration. As an important place for cultural inheritance, schools should improve the physical education curriculum. To increase the proportion of traditional sports culture courses, we should not only teach skills, but also deeply explain its cultural connotations such as philosophical thoughts and moral concepts. At the same time, teaching methods should be obtained, and traditional sports culture should be presented to students in a more intuitive and easy-to-understand form by using digital teaching tools, such as online courses and animation demonstrations.

Strengthening cultural identity is the key. The core task of the promotion work is to show the modern value of traditional sports culture by excavating the convergence point between traditional sports culture and modern life, and to enhance the sense of participation and belonging of the digital generation by holding cultural festivals, campus competitions and other activities. The specific implementation and expected effect of these strategies are shown in Table 1.

Table 1 Implementation and Expected Outcomes of Cultural Gene Transmission Strategies

| Strategy Direction                 | Implementation Methods                                                                                    | Expected Audience Response                         | Long-term Expected Outcomes                                       | Potential Challenges                                               | Countermeasures                                                        |
|------------------------------------|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------------------|
| Innovative Communication Models    | Weekly traditional sports short videos on Douyin/Bilibili; Develop VR/AR sports experience apps           | Attracted by videos; Actively try apps             | Significant boost in digital influence; Increased youth interest  | High development costs; Uncertain user acceptance                  | Budget planning; Partner with tech teams; Market research optimization |
| Education Integration Optimization | Weekly traditional sports theory classes in schools; Animated/gamified online courses                     | Higher class engagement; Active online learning    | Deep understanding and appreciation; Strong cultural awareness    | Teachers' digital literacy gaps; Curriculum integration complexity | Teacher training programs; Interdisciplinary course development teams  |
| Cultural Identity Strengthening    | Annual community sports festivals with family activities; Intercollegiate traditional sports competitions | Active participation; Enhanced cultural connection | Established cultural belonging; Sustainable heritage transmission | Complex event coordination; Declining participation over time      | Professional event teams; Continuous activity innovation               |

From Table 1, it can be seen that these strategies have comprehensively covered multiple scenarios of the digital generation's exposure and acceptance of culture from different perspectives, through diversified and targeted implementation. It is expected to effectively promote the transmission of China traditional sports culture genes to the digital generation, and make the traditional sports culture glow with new vitality in the digital age.

## 5. Conclusions

This study focuses on the transmission of China's traditional sports culture genes to the digital generation, and analyzes the characteristics of traditional sports culture, which contains Confucianism, Taoism and Buddhism, pays attention to the moral concept of "courtesy" and shows the oriental charm.

It is found that the impact of digital technology causes virtual entertainment to occupy a lot of leisure time in the digital generation, the difference of cultural context makes it difficult to match traditional and modern expressions, and the lack of traditional sports culture in the education system constitutes the main obstacle to the gene transmission of traditional sports culture. Therefore, the research puts forward three strategies: enhancing the attraction by using short video, VR/AR and

other technologies to innovate the communication mode, adding cultural connotation courses and digital teaching tools to optimize the integration of education, and excavating the modern value of culture and holding theme activities to strengthen cultural identity. These measures aim to break through the transmission barriers and promote the understanding and inheritance of traditional sports culture in the digital generation.

It should be emphasized that cultural inheritance is long-term and dynamic, so it is necessary to continuously pay attention to technological development and social changes and adjust strategies in time to ensure the effective inheritance and development of China traditional sports culture in the digital age.

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