The value and implementation path of smart media technology application in the cultural heritage of ethnic traditional sports

Tang Yunhao

International College, Krirk University, Bangkok 10220, Thailand

* Corresponding author: Tang Yunhao, t1095725697@163.com

ABSTRACT

This study analyses the value of embedding smart media technology in the protection and inheritance of traditional Chinese national sports culture, explores the logical relationship between smart media technology and traditional sports culture inheritance, and proposes innovative development paths based on the basic principles and development trends in an attempt to provide useful references for the living inheritance and sustainable development of traditional Chinese national sports culture. The rational use of smart media technology can effectively drive the high-quality development of various fields. The application of smart media technology in the inheritance and development of traditional ethnic sports culture is expected to reflect the diversified values, based on which it is important to point out that the implementation path of the new smart media technology to accelerate the promotion of traditional ethnic sports culture is of great significance in practical development. This study uses the PDCA cycle theory to establish a research idea based on the main line of “value analysis-proposed path-path evaluation-continuous optimization”, whereby the smart media technology drives the innovation of the development situation, and pushes the dissemination of Chinese traditional national sports culture into the smart media era. It is found that the integration of the two helps to innovate the way of cultural inheritance, is conducive to better excavation and collation of the essence of excellent traditional sports culture, and can better promote diversified development. It is conducive to promoting the sustainable development of the traditional sports culture industry. It is conducive to the promotion of national cultural exchanges, exchanges, intermingling and the enhancement of national cohesion, and helps to effectively excavate and reasonably use the deep value of smart media technology; it should be based on the needs of development and innovative communication and development of smart sports culture mode. The development of traditional sports short video platform, the construction of intelligent traditional sports into the campus system, the construction of a diversified system of communication mode; from the “traditional inheritance mode” to the “intelligent leadership”, the integration of content, innovative inheritance mode. From “cultural inheritance” to “resource sharing”, precise positioning and integration of resources. Eventually, a system will be formed that is led by intelligent innovation, optimizes the mode, improves the content, and strengthens the evaluation and feedback.

Keywords: intellectual media technology; ethnic traditional sports culture; inheritance and development; value; implementation paths
1. Introduction

In the trend of globalized community of destiny, the dissemination and exchange of cultures of different countries can have a multi-level promotion effect, and the excellent national traditional culture represents the sign of national identity. It embodies the deep cultural connotation, and it is the display of a country's sports culture, which shows the importance of the rescue, excavation, protection, inheritance, exchange and innovative development of the national traditional sports culture to promote the deep-level development between different countries[1]. Ethnic traditional culture is an intangible, living change and grow in the national folk cultural products, it is a national life memory of the ancient genes, is a national living culture of the genes. It contains the wisdom of the people and the spirit of the nation. The cultural heritage of traditional national sports fully embodies the values and aesthetics of sports shared by humankind, and is a kind of “living humanistic heritage”.

This study focuses on the characteristics of traditional national sports culture inheritance, combines the characteristics of media technology, and gives full play to the interactive, convenient and open features of smart media and its flexible communication advantages in accordance with the development needs of the times. Based on sports science, smart media technology and related theories and practices, the study analyses the value implication of the current use of smart media technology to inherit traditional national sports culture from the characteristics of traditional national sports culture and the path of intelligent communication, and further explores the future development path of traditional national sports culture through inheritance and innovation. It will accelerate the construction of the “intelligent” inheritance system.

2. Literature review

In the process of development in the new era, smart media technologies have been applied to a variety of fields. Since the development of the “smart media era”, related technologies have entered various aspects of cultural communication, including national culture, sports culture and historical culture. For example, in the process of disseminating the excellent traditional sports culture, it will choose to select the platforms and software or build a new intelligent service system to screen the excellent traditional culture and extract the excellent content for the systematic cultural inheritance work[2]. It helps to promote the effective classification of the rich national traditional sports culture and give the most optimal options. Therefore, it is crucial to seek the smart media technology suitable for the dissemination of national traditional sports culture.

Ethnic traditional sports programmes are of many types and rich in content. Therefore, the effective integration of smart media technology in the process of inheritance can be effectively integrated and optimized, and can promote sustainable development. On the one hand, smart media technology can play its own function to create traditional sports IP, intelligent sports events, sports culture and tourism and other special projects[3]. On the other hand, the progress of smart media technology is also the actual demand of the national traditional sports culture inheritance, which can show the maximization of the value.

Smart media technology has strong digital capture, intelligent services and other functions, and the application of this technology to the field of national traditional sports culture inheritance can better achieve resource sharing and convenience[4]. On the one hand, traditional culture has a deep inner meaning and a rich and colourful composition of items, but if in the process of inheritance, modern means are not fully used for effective integration, it will lead to the failure of the excellent content to be fully demonstrated. On the other hand, smart media technology is a product of modern technology, with huge digital processing functions, which can effectively integrate the deep-seated cultural essence. The effective combination of the two will have a favourable impact on the common development.
Traditional national sports culture is the product of the wisdom of the masses and the creation of history. With its own unique characteristics, the use of big data and other technologies to promote its inheritance and development needs to find suitable methods and specific implementation paths. What needs to be emphasized is the construction of a framework suitable for development, and the establishment of a new service system such as artificial intelligence, mobile Internet, big data, virtual reality and so on, which is suitable for the development of traditional national sports culture around the needs of development. The current relevant research also emphasizes the need to formulate a clear direction of development, to bring the smart media technology into full play, so as to improve the effectiveness of the application.

Artificial intelligence, big data, Internet mobile and other technologies have created opportunities for high-quality communication and promotion of traditional ethnic sports culture. Based on the principle of cultural communication, it is necessary to effectively embed the relevant technology of smart media, effectively screen, intelligently classify, digitally integrate, and scientifically process ethnic traditional sports culture, and set up the relevant needs and expected results, which is conducive to the long-term development.

In 1990, by the Chinese Sports Museum, the Chinese National Sports Commission, the Cultural and Historical Work Committee jointly compiled and published the Chinese National Traditional Sports Journal, after four years of collection work, “basically mapped out the 'family base' of the Chinese national sports. Collected as many as 977 items of traditional ethnic sports, including 676 items of ethnic minorities and 301 items of Chinese national sports.” It can be seen that China's national traditional sports programmes have many categories, diverse forms of expression, and contain deep cultural connotations. Therefore, the construction of intelligent inheritance path is suitable for the development of national traditional sports culture. As far as possible, it should be able to refract the deep culture through intelligent events, intelligent service system, virtual and simulation experience and other modes.

3. Research objectives and methods

The researcher takes the value of smart media technology embedded in the process of inheritance and development of traditional Chinese national sports culture and proposes a specific implementation path as the research object. A qualitative research method was adopted, relevant literature was systematically reviewed, and relevant experts and staff were interviewed objectively.

3.1. Research objectives

The research direction of this study is the value of smart media technology in the process of traditional Chinese national sports culture inheritance and the proposed rationalization of innovative paths.

3.2. Research methodology

3.2.1. Documentation method

It mainly collects, arranges, summarizes, analyses and concludes the relevant materials through CNKI academic literature, Google Scholar, relevant excellent books, and databases of important conferences on the direction of traditional ethnic sports and smart media technology.

3.2.2. Interview method

The unstructured form of expert interviews was used to conduct online interviews with teachers and senior staff in the research direction of traditional ethnic sports and smart media. To further understand the positive impact of smart media technology on the inheritance of traditional ethnic sports culture, based on the actual
situation between the two, closely focusing on the need for sustainable development to propose targeted innovative development paths.

3.2.3. Logical analysis

By generalizing, reasoning and summarizing the results of the study, systematic comparisons and comprehensive analyses are carried out to propose strategies on how to optimize development.

4. Findings

4.1. Analysis of the value of intellectual media technology application in the inheritance and development of traditional Chinese national sports culture

4.1.1. Conducive to innovative modes of communication and the promotion of the spirit of outstanding national culture

The inheritance of China's outstanding traditional national sports culture requires the construction of an innovative development system. On the one hand, in the process of cultural inheritance, traditional national sports should actively use smart media technology to disseminate and develop multiple paths to give full play to the value of “wisdom + sports culture dissemination”. Through the smart media platform to actively promote the history, evolution, development process, the characteristics of the traditional national sports culture, can effectively increase social attention, the excellent Chinese traditional national sports culture to the public's field of vision. Attract more people to know the traditional national sports culture. Prompt more scholars to participate in the research. On the other hand, the dissemination of Chinese sports culture adheres to the correct direction, value orientation and social orientation, sings the main theme, grows positive energy, and carries forward the spirit of patriotism and the spirit of Chinese outstanding sports. Smart media technology embedded in the innovative inheritance method of national traditional sports culture helps to bring out the cultural value connotation and enrich the communication route of national sports traditional culture. It can continuously meet the needs of the general public for a higher level of sports. Promoting the people to further understand the essence of Chinese national culture, it has far-reaching significance for promoting national unity and advancing social progress.

4.1.2. Favouring the promotion of diversification

Ethnic traditional sports is an important bridge and intermediary for cultural exchanges among various ethnic groups, and it is the treasure of Chinese traditional culture, but in the process of development, the path of project promotion and dissemination is relatively lagging behind, which has become a stumbling block for the development of ethnic traditional sports and culture. Based on the current stage of the environment, it is necessary to promote the construction of national traditional sports and cultural intellectual media service system, and play the advantages of diversified national traditional sports. It is conducive to the inheritance and development of Chinese outstanding ethnic traditional sports culture in a diversified mode. On the other hand, embedding the smart media is conducive to better cross-cultural communication, sharing and inheritance of the optimised traditional sports culture.

4.1.3. Promoting the development of new forms of national sports and cultural industries

Under the rapid development of China's smart media technology, national traditional sports culture is being marketed through various smart media platforms, and new business forms of national traditional sports culture are being fully explored. Broaden the market to create more business opportunities, so that the economic value of the national traditional sports and cultural programmes can be brought into full play. Fully develop the national traditional sports industry in the age of smart media. Embedded in the smart media
technology to create smart cultural tourism, smart events, intelligent teaching system, to achieve new business development of national traditional sports and culture industry. Therefore, this has largely driven the high-quality development of the traditional sports industry chain. It has played a positive role in promoting the national economic construction. Traditional national sports culture has its own important value in the economy. It has extremely important and far-reaching commercial value through the branding of the sports traditional culture industry, improving the efficiency of scientific and technological development, entering the international market by using intelligent business models, and adopting appropriate marketing strategies for development[11]. Through, the co-ordinated management of various enterprises and institutions and the operation of various sports industry companies, the symbiotic development of the national sports industry demonstration zone and the national traditional sports culture dissemination base will be further promoted. The industrial projects of ethnic traditional sports itself are fully explored, thus promoting the efficient development of new traditional sports and cultural industries.

4.1.4. Favouring the promotion of innovation and living transmission of traditional national sports culture

Traditional national sports programmes are the representatives of all national cultures and the essence of all national cultures. Therefore, it is necessary to clarify the implementation path of cultural inheritance, to stimulate the traditional national culture in the process of inheritance and development to play out its own value, and to decide whether the traditional Chinese national sports culture can develop for a long time, but also a strong guarantee. The communication method of smart media technology can further excavate and integrate the national sports culture to achieve high efficiency dissemination, demonstrating the concept of intelligent and innovative development of traditional sports culture. Through the use of the Internet and cloud technology, integrated 5G network, VR/AR technology, GPS navigation, positioning and smart phones to give intelligent services[12]. Based on the perspective of smart media technology, launch activities that are conducive to the quality dissemination of traditional ethnic sports culture. Create more projects that are suitable for the long-term and solid development of ethnic traditional sports culture, and help the excellent ethnic traditional sports projects in each region to build a good communication platform through the integration and development with the smart media, so as to promote the sustainable development of Chinese traditional ethnic sports culture.

4.1.5. Favouring the promotion of national cultural exchanges and the strengthening of national cohesion

Smart media technology integrates traditional media and new media and other methods, focuses on the attractiveness of the communication form, and broadens a new development path for the communication of Chinese national traditional sports culture. On the one hand, respect for scientific development is a prerequisite for deepening the communication of national sports and culture, developing the construction of national sports and culture in the mode of big data and intelligence, setting up a perfect intelligent sports service system, combining the project's own cultural advantages, and promoting the sharing of traditional national culture. On the other hand, innovative thinking is used to promote the dissemination and development of traditional sports culture. Through the smart media service mode to continuously innovate the dissemination form of national sports and cultural undertakings, clear the characteristics of each region and each project combined with the intelligent mode of local adaptation and coordinated development[13], to achieve the deep-level construction of national sports culture and intelligent development.

Embedding smart media technology in the inheritance path of traditional national sports. It is necessary to take the value and cultural connotation of the programme itself as the starting point for development, so as to realize the integration and development of traditional sports and various kinds of cultural exchanges with smart media. For example, the Nanjing Sports Institute in Jiangsu Province, China, has developed a special programme called “stone lock”. Stone lock is an ancient Chinese traditional folk sport, which has not been
well developed because of equipment and safety issues, but in recent years, through the research of Nanjing Sports Institute and other colleges and universities and social and civil society organizations, three generations of intelligent stone locks have been developed, which have changed the original stone material into a more scientific rubber material. The original stone material is changed to more scientific rubber material, and the intelligent chip installed inside the stone lock can accurately judge the type of movement, with the function of recording the practice time, the number of movements, testing the intensity of movement, evaluating the quality of movement, scoring and evaluating intelligently, providing the people with a platform for cultural exchanges and strengthening of the body, and the exchange of excellent national traditional sports projects. The function will be given full play.

4.2. Innovative path of embedding intellectual media technology into the development of China's ethnic traditional sports culture

4.2.1. Continuing to innovate the mode of wisdom sports culture inheritance and development

With the rapid development of the times and the continuous emergence of various intelligent technologies, the promotion of Chinese traditional national sports culture needs to be closely related to practice, build high-quality communication methods, and give full play to the advantages of smart media communication. Chinese national traditional sports have deep-seated cultural elements, and on the basis of traditional cultural characteristics, they show the unique cultural role of national sports. Today's society in the process of intellectualization, the continuous emergence of emerging technologies, artificial intelligence, big data, AR/VR and satellite positioning and other technologies gradually play an advantage in various fields, combining the traditional national sports culture and the path of smart media construction. So that the excellent national traditional sports culture is inherited and developed through innovative communication methods.

(1) Development of short video projects: all kinds of short videos are popular among people of all ages, and there are a variety of short videos of sports on the major short video platforms, including the introduction of the development history, explanation of the rules, highlights of exciting matches, display of exquisite movements, teaching videos, etc., and there are even fewer short videos of the type of national traditional sports. At the same time, this also provides an opportunity to develop the short video construction path of ethnic traditional sports. Traditional national sports culture has a rich history and culture as background. Through the dissemination and promotion of high-quality short video platforms, it is possible to develop national traditional sports characteristic teaching videos, exciting events, project rules explanation and national traditional cultural activities, etc., and integrate the characteristic cultural elements of ethnic minority regions, uploading a variety of forms of short videos related to national traditional sports to short video platforms, so that the people can further understand Chinese national traditional sports and projects through the national traditional sports type short videos. The short video platforms upload short videos related to traditional ethnic sports in various forms, so that the people can further understand the connotation of traditional Chinese ethnic sports and projects through short videos of traditional ethnic sports, and show the local characteristics of traditional ethnic sports projects to the public's perspective, thus attracting the attention of the general public to the culture of traditional ethnic sports and fully displaying the elegance of Chinese ethnic culture through the short video communication of traditional ethnic sports. By constructing characteristic short videos of ethnic traditional sports, each platform creates regional characteristic culture and demonstrates the colourful and ornamental features of ethnic traditional sports competitions.

(2) Building a system of activities for the intelligent introduction of traditional ethnic sports into schools. Ethnic traditional sports arise from the different environments, cultures, customs and flavours of various ethnic groups, and have their own unique cultural and educational functions. Ethnic traditional sports into the campus
to carry out special sports culture education is one of the development processes of Chinese ethnic culture into the education system of the new era. The promotion of ethnic traditional sports and culture on campus can be based on the actual situation of each region to choose different projects, the activities carried out do not need to be too extensive, but to achieve personalized and high-quality promotion of the activities, in order to better contribute to the long-term beneficial development of the ethnic traditional sports on campus\cite{15}. Functional departments can implement the “traditional ethnic sports into the campus” activities, the establishment of intelligent operation, to carry out the traditional ethnic sports programme of colourful games, competitions. Promote students' understanding of traditional ethnic sports. Train outstanding traditional ethnic sports athletes to participate in traditional ethnic sports events.

Ethnic traditional sports in schools are based on the selection of programmes, the use of teaching methods, the organization of activities and the cultivation of students' interests. The basic teaching programmes of traditional ethnic sports in schools mainly include gyro-playing, wushu, fitness qigong, dragon and lion dances, firecracker snatching, shoe racing, bamboo pole dance, shuttlecock and pearl ball, etc. At the same time, in the course of promoting these programmes in various regions, it has been found that there are relatively few people who have received professional training in traditional ethnic sports. The “Ethnic Traditional Sports in Schools” project can establish an intelligent teaching mode, integrate online teaching videos of outstanding athletes and coaches of ethnic traditional sports, and teach them to students through online teaching videos, virtual and simulation experiences and other technologies. At the same time, 3D video teaching, VR technology analysis and intelligent training feedback system can be produced through smart media technology, so as to improve the quality of campus sports activities and promote students' deep understanding of traditional ethnic sports culture, and promote the deep innovative development of traditional ethnic sports culture on campus.

4.2.2. Diversification of the modes of dissemination of traditional national sports culture should be strengthened

Against the backdrop of the diversification and high-quality development of modern sports, the development of traditional culture has faced threats and challenges. Some ethnic traditional sports have been gradually marginalized. The traditional sports programmes of the Chinese nation are formed by various nationalities in the long-term historical process with profound formation. At present, many traditional national sports programmes encounter the status quo of lack of diversified and innovative development, and the way of publicity and promotion of traditional national sports culture is not distinctive. Therefore, it is necessary to give reasonable play to the advantages of intellectual media to inherit and protect the traditional national sports culture, excavate the core spirit of the national sports culture, and create a diversified way of disseminating the traditional national sports culture. Also, through organizing colourful activities and diversified modes of dissemination, people will have a deep understanding of the national traditional sports culture, so as to participate in the national traditional sports.

With the continuous enhancement of 5G and smart media information technology, intelligent service platforms and smart APPs are continuously presented. In order to make the development of national traditional sports culture more effective inheritance and protection. It is possible to integrate the smart sports service system, take the smart media platform as the entry point, and form cooperation with enterprises and institutions. Through, the wisdom sports service platform, the wisdom media publicity platform and so on can carry out wisdom sports tourism, wisdom teaching, wisdom events and special national traditional sports competitions etc. Combined with the integration of the characteristics of each national traditional sports project in each service, the local characteristics of the style and culture are set\cite{16}. By carrying out colourful activities, create a diversified national sports culture dissemination mode.
4.2.3. Content of the practice of embedding intellectual media technology in the cultural heritage of traditional ethnic sports should be expanded

In the social development of information technology, a variety of emerging technologies continue to emerge, artificial intelligence technology, big data, cloud computing, the Internet, AR/VR technology, etc. gradually in various industries show, the concept of “wisdom +” was launched, and became the focus of public attention. The effective development of national culture can be promoted through the development of smart media technology, and the cultural connotation of national sports is fully demonstrated. Through the intelligentisation of national sports, the development of intelligent tourism and the organization of national sports events, etc., the diversified development of local economy and national culture is promoted, and the traditional Chinese national sports culture is spread in a wider region.

Relying on the intelligent mode of ethnic sports and helping the inheritance of ethnic culture is one of the important factors for ethnic sports and culture to comply with the high-speed development of modernization. On the one hand, running ethnic traditional sports and cultural activities through smart media technology, integrating ethnic sports resources, subdividing the efficacy of ethnic sports, and organizing various activities according to local conditions, brings the greatest advantages of ethnic traditional sports into play. For example, to carry out the intelligent service system, participants through the intelligent platform opened VR/AR project introduction and other functions, the establishment of intelligent enrolment system, in advance to help participants to design exercise plans as well as virtual teaching videos, etc., the end of the exercise through the network system for evaluation and feedback, to enhance the continuity of the development of traditional ethnic sports[17]. On the other hand, through multi-channel national sports and cultural activities to promote, help the dissemination of national culture, in the process of promotion cannot be limited to existing channels, according to the different needs of a more reasonable and effective innovation and development, to open up new communication channels.

4.2.4. should accelerate the construction of a new pattern of integration and development of ethnic traditional sports culture and intellectual media

National cohesion is the intrinsic force that drives the Chinese nation to keep moving forward, and it is the vitality of the Chinese nation. Promoting the integration and development of wisdom sports and national traditional sports culture is conducive to promoting the exchange and intermingling of the special sports culture of various nationalities, which is the material guarantee for building a national sports and cultural community, the inevitable process of assisting in the construction of the community of human destiny, and the inevitable process of the development of the traditional national sports and cultural community. Integration of relevant resources to build a smart sports communication model, incorporating elements of traditional ethnic sports culture, and promoting the sharing of traditional ethnic sports culture[18]. It should be done to keep abreast of the times to deeply integrate the national traditional sports with modern technology, and deeply develop the intrinsic demands of the national traditional sports programmes; on the other hand, it promotes the integration of traditional sports culture and national wisdom. It can promote the traditional national sports culture to be passed on from fire to fire. Continuously innovate the development mode of national sports culture, make clear the uniqueness of the achievements of the national group, realize the innovative transformation of culture, and change from the traditional national sports culture identity to the construction of national sports culture community.

In conclusion, the innovation and development of national sports culture should be based on the “ontology” and “content” of traditional national sports culture. So that the national traditional sports to show their own value, and at the same time play unique cultural characteristics. Smart media has gradually become an essential
part of social life. By giving full play to the technological advantages of smart media\textsuperscript{[19]}, and realizing the sharing of national traditional sports culture and the sharing of national traditional sports industry\textsuperscript{[20]}, the cultural essence of national traditional sports and the sense of community that melts the culture of the Chinese nation will be passed on continuously. Accelerate the construction of a new pattern of Chinese outstanding ethnic traditional sports culture development.

5. Conclusion

Taking the rich cultural heritage resources of national traditional sports and the innovation drive of smart media as the highlight, attaching great importance to the new requirements in the development of national traditional sports culture embedded in the smart media technology, proposing the full application of the big-picture awareness of smart media technology, perfecting the cultural dissemination pathway, and clarifying the path of innovative development to achieve the pathway, we cannot only achieve the inheritance and development of the national traditional sports culture at the macro level, but we should comply with the development trend of the times, and practically Integrate the existing resources of the smart media communication methods, focus on the core of new technologies, and develop the Chinese outstanding national traditional sports culture in an organized, planned and scaled manner, so as to provide effective assistance for accelerating the innovative path of the new pattern of intelligent development.

6. Recommendations

After analyzing the value of the application of smart media technology to the cultural inheritance of traditional national sports, the study expects to put forward a more reasonable path of innovation and development, and puts forward relevant suggestions for the needs of practical development.

(1) Embedding smart media technology into the process of national traditional sports culture inheritance, firstly, the relationship between the two should be clarified, and secondly, the value points that can be generated should be listed.

(2) The characteristics of smart media technologies should be fully reflected, and the process of embedding them should be organized, layered and systematic, with an emphasis on proposing intelligent and innovative means according to the dilemmas of development.

(3) The proposal of the implementation path should be centered on the actual development needs and top-level design. To avoid the proposed development path facing difficulties in realization, it should be closely related to the correlation generated by the smart media technology and the national heritage sports culture.

(4) Future research should broaden the mindset, make a reasonable assessment of the dynamically developing factors, rationalize and propose optimization strategies.

References

5. Song X. Physical education teaching mode assisted by artificial intelligence assistant under the guidance of high-order complex network.[J].Scientific reports,2024,14(1):4104-4104.


