



Internet+ Thinking Innovation Path of Extracurricular Sports Activities in Colleges and Universities - Wuhan Business University as an Example

Di Zhang

School of Physical Education and Equestrian Wuhan Business University Wuhan, China

601628914@qq.com

Abstract. In today's world of constantly developing technology, information technology has penetrated into all areas of society, and China has in fact entered the era of information technology. Premier Li Keqiang has repeatedly mentioned the great role of Internet+ in boosting different industries in recent years, and the State Council has also introduced a series of supporting policies. In the two sessions of 2019, "Internet+Education" was written into the government work report for the first time, indicating that the state supports and attaches great importance to the development of innovation in the field of education. In China, the use of Internet and various intelligent teaching methods have been more common in the teaching of some professional theory courses and public basic theory courses. In fact, the Internet can also play a great role in the physical education of colleges and universities. It has an important role in enriching the physical education curriculum system, strengthening the construction of online courses, optimizing the teaching effect of physical education courses, guiding the students to choose physical exercise in a personalized way, obtaining online teaching resources conveniently, and promoting the popularization of physical culture. Through research, analysis and conclusions etc. the author takes Wuhan Business University (WBU) as a case study, in an attempt to propose an innovative path to carry out extracurricular sports activities in universities with Internet+ thinking. With the hope that this paper is for further discussion by colleagues and also provides some reference for their follow-up researches.

Keywords: Internet+; innovation; education; sports

1 Introduction

In October 2020, the General Office of the State Council issued the "Opinions on Strengthening the Construction of National Fitness Facilities and Developing Mass Sports", proposing to promote "Internet + Fitness" and improve the public service of national fitness. In July 2021, the State Council issued the "National Fitness Plan (2021-2025)", emphasizing the provision of intelligent services for national fitness, promoting online and intelligent sports events, and supporting the development of

smart fitness, cloud events, virtual sports and other emerging sports [1]. In recent years, with increased national policy support, the concept of Internet + sports has been a hot topic and development direction in the sports sector.

Currently, in the field of sporting goods industry and sporting events, there are many successful cases and mature experiences of Internet + empowerment. However, in college sports, especially in extracurricular sports activities, the empowerment of the Internet is not yet obvious. This paper argues that, with the Internet + thinking, exploring an innovative path for contemporary young college students to carry out extracurricular sports activities will help students' enthusiasm and improve their physical fitness, and help further enrich college sports culture.

2 Internet + College Sports

With the development of Internet information technology, physical education in colleges and universities is facing more opportunities. Under the influence of Internet information technology, college physical education is actually facing the reform of information technology, and its rapid progress and advancement with the times in educational programs, concepts and modes are just like constantly improving the level of physical education in colleges and universities [2].

In the United States, colleges and universities have always attached great importance to the development and utilization of extracurricular sports network resources, and the extracurricular sports section of each university campus network takes up a large part of the content, including intramural sports, sports clubs, venues and facilities. The development of information technology in China is later than that in Europe and America, but with the continuous growth of China's economy and the development of social science and technology culture, the gap between the level of information technology and that of developed countries in Europe and America is gradually narrowing. The development and utilization of network technology in China's universities is also improving with the development of socio-economic culture and people's awareness [3].

3 The current situation and problems of extracurricular sports activities in WBU

3.1 Current situation

3.1.1 Main forms of activities.

One is the morning exercise, the university made mandatory requirements for freshman students, the organization of the morning exercise is generally carried out in the form of class, grade or the whole school. The content is generally not specific requirements, mainly activity exercise, unlimited forms, the main purpose is to cultivate students' self-discipline and enhance physical fitness.

The second is the sports club, which is mainly formed by students according to their sports hobbies, from training to competition activities are generally organized by students themselves, which is relatively speaking, more casual and voluntary.

Thirdly, personal physical exercise is a sport activity that college students participate in spontaneously according to their own fitness needs and interests after school hours, such as running, fitness, aerobics and other physical exercises.

Fourthly is after-school sports training in the university, which is usually the representative team of a certain sport in the school with fixed team members, usually selected to enter and under the guidance of instructors for systematic training, the main purpose is to train for the competition. Since they are selected on the basis of merit according to the technical requirements of the sport, the proportion of students participating in after-school sports training is low in proportion to the overall student population.

Fifth, there are campus sports events and activities, mainly athletic meets, individual sports events and sports festivals (sports weeks). Comprehensive athletic meets are usually arranged by the university at a fixed time of the year and are the events with the widest range and proportion of student participation on campus. There are also individual sports competitions, which are usually organized by the student union and related sports clubs, and in which students voluntarily sign up. The Sports Festival is mainly to create a sports atmosphere and build a campus sports culture, so the activities are much richer. It is not limited to events of some sports, but also includes interactive sports games, sports performances, sports culture promotion and lecture forums, etc.

3.1.2 Students' participation status.

On the whole, through the authors' research, most students surveyed in Wuhan Business University are well aware of the importance of sports and have a strong sense of participation, and in some sports, such as basketball, badminton, tennis and martial arts, students are very enthusiastic in participating. However, from the overall results of the survey, the proportion of students who often participate in sports is still low, mainly due to academic pressure, hobbies, venue facilities, physical education courses, etc. The specific details will be elaborated in the next part.

3.1.3 Problems.

- The morning exercise is also less effective due to the compulsory requirement of the school, coupled with some students' poor habits of work and rest in general, inertia problems, and the relatively casual and loosely-organized content of the morning exercise.
- Some sports that are generally popular among students are affected by the efficiency of venue management and the lack of the number of venues, which affects the students' motivation to participate in after-school exercise on their own.
- The quality of extracurricular training and competition preparation for some sports is not high. The main reason is that teachers are under great pressure of academic

research and teaching, so it is difficult for them to devote themselves to team training; secondly, the lack of professional instructors for some sports makes it difficult to guarantee the quality of training; thirdly, some sports are limited by funding and equipment, which also affects extracurricular sports training to a certain extent.

- Campus sports culture activities, in the form of "road vending" promotion, do not fully mobilize students' motivation, especially for those who usually do not like to participate in sports.
- The correlation and connection between physical education classes and after-school exercises are not strong, which also indirectly affects students' interest and enthusiasm in practicing.
- The lack of professional expertise guidance and effective technical feedback for some students in the process of extracurricular exercise also affects the motivation of long-term participation in sports.

4 Innovative path of Internet+ thinking to promote extracurricular sports activities

4.1 Innovation of collective extracurricular sports activities organized by the university

Although the university does organize some collective extracurricular sports activities, such as morning exercise activity. But the attendance of morning exercise is not satisfactory and is in a state of form. Some classes replace the morning exercise with the roll-call system, and students' attending without exercise makes the morning running activities are not effectively implemented, and the purpose of enhancing physical fitness and health level is difficult to be realized. Innovation of morning exercise management form and organization mode, design and development of morning exercise management system, through the online positioning of card punching way to record attendance, also allows students to easily check the morning exercise data, and timely collection of students' interests, flexible adjustment of morning exercise content, improve students' motivation.

4.2 Optimizing the efficiency of field utilization by creating field management system with artificial intelligence technology

The use of artificial intelligence products such as fingerprint and face recognition can be adopted in the access control of sports grounds to facilitate school management and also students' extracurricular exercise and help improve the sense of experience. The system can release information, show the open status of school venues and provide reservation function. At the same time the background big data provides intelligent analysis for data such as site utilization, exercise attendance, male to female student ratio, and exercise peak, and generates reports to provide the school with reference for venue construction and optimization of physical education curriculum.

Table 1. Application list of artificial intelligence venue management system (software and hardware)

<i>Item</i>	<i>Number</i>	<i>Main function</i>
Intelligent cameras	Several sets	Face recognition for entering and exiting the venue
Intelligent analysis system	1 set	Comprehensive analysis of sports and exercise data
Venue monitoring system	1 set	For background management
Online booking system	1 set	For venue reservation booking

4.3 Setting up an Internet sharing platform for extracurricular exercise teaching resources

In some sports where schools have insufficient available teachers, the university can purchase high-quality online teaching videos and hire qualified physical education teachers for online guidance to create more convenient exercise conditions for students, enrich the content of extracurricular exercise, and meet the after-school exercise needs of this part of students. The university can also invite in-school physical education teachers to join the online platform, i.e. to play the role of PE teachers in the after-school physical exercise of students, and also to strengthen the supervision and guidance of extra-curricular exercise tasks assigned from PE classes.

4.4 Enriching campus physical education culture activities with Internet+ technology

Campus physical culture is one of the core and an important part of campus culture, which is a continuation and an important supplement of physical education classroom teaching [4]. The activities of campus physical culture week are organized and promoted by dedicated personnel at fixed time periods, and are usually promoted by setting up propaganda boards and slogans on campus. If Internet+ technology is introduced to promote it by means of a mobile app interactive platform, it not only breaks through the limitation of time and space, but also is a popular way for students to promote it. On this platform, students can socially interact, such as uploading physical exercise media materials, sharing campus sports information and off-campus sports information, and learning online sports knowledge. Only by finding ways to innovate, combining offline participation with online sharing and interaction, and creating a strong campus sports culture, can we get students truly engaged in extracurricular sports and develop a sense of lifelong sports.

4.5 Developing or introducing advanced exercise apps to provide a quality exercise experience for students

Table 2. List of currently popular sports apps

<i>Brand</i>	<i>Category</i>	<i>Description</i>
51yund	Data logging category	More than 300 million users downloaded
Xiaomi Sports	Data logging category	The official app developed by Xiaomi, the number of registered users exceeded 100 million
Keep	Fitness guidance category	The number of users has exceeded 100 million people in 2017 and subscribed members reached 1 million in 2019
Fit Time	Fitness guidance category	Internet + Fitness Industry Partner of CCTV Securities Information Channel's "Beyond" Program

Sports APP can be mainly divided into two categories (see the table above), one is the "data recording" APP such as Xiaomi Sports, which mainly records running time, route, calorie consumption and so on, focusing on running records, but also gradually increasing the interactive sharing community; the other is the fitness guidance APP such as Keep, which comes with independent customized fitness training courses, and is loved by the majority of fitness enthusiasts because of its rich content [5].

The KEEP software is more popular among young people. According to the official website of Keep, its number of users had exceeded 100 million people in August 2017. However, some of its built-in features and course instruction are fee-based programs. Due to the limited financial conditions of students, schools can consider hiring a professional team to develop or purchase an app containing instructional courses from a company like KEEP for students' exercise as a group client, which means that it creates quality conditions for students and reflects the keeping up with the times of university sports works.

5 Conclusion

With the continuous implementation and development of the concepts of Internet+education, Internet+sports and smart sports, the combination of sports work and Internet technology in colleges and universities will be more and more closely in the future. In the new era for youth, all the bright future needs a strong physique. Therefore, the innovation and optimization of college sports extracurricular activities with the concept of Internet+ can not only fully mobilize students' enthusiasm to participate in physical exercise and cultivate their lifelong sports awareness, but also solidly promote the development and progress of school sports work.

Acknowledgment

I would like to take this opportunity to express my heartfelt appreciation to my family members for giving me the support needed in the process of writing this paper.

References

1. The State Council of PRC. http://www.gov.cn/zhengce/content/2021-08/03/content_5629218.htm
2. Wang Zhongrui." Research on the impact of the Internet on physical education in colleges and universities and countermeasures." *Youth Sports* .03(2016):105-106+61. doi:
3. Zhao Xiangzhou. A comparative study of after-school sports in colleges and universities in China and the United States.2009. Yangzhou University, MA thesis.
4. Chen Xiang." Reflections on the Construction of College Sports Culture by Smart Sports." *Youth Sports* .09(2019):32-33. doi:
5. Xiao Bai ff. <https://www.jianshu.com/p/3325315acc16>

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

