Research on the Database of Competitive Sports Talents in Colleges and Universities in China under the Background of “Internet+”

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Abstract. In order to promote the rapid development of competitive sports in colleges and universities in China, the database of talent cultivation is constructed by using Internet technology so as to provide high-level sports talent for colleges and universities. Using field investigation and logical analysis to construct the base of training database of competitive sports talents in colleges and universities under the background of “Internet+” situation and feasibility of scientific cloud computing analysis and the construction of a database, this paper is intended to provide a variety of valuable information and data for the training of competitive sports talents in colleges and universities, to enhance the quality and level of competitive sports talents in colleges and universities.

1. Introduction

With the “Internet + Action” written into the 2018 “Government Workers Reporting” in China, “Internet +” has become a new focus of attention from all walks of life, at the same time educational administrations at all levels have begun to benefit from the new research topics to promote talents training with internet educational resources and information technology quality. Emerging in recent years, new resources, forms and models of Education, such as moocs, micro-class and Flipping classroom is closely related to Internet technology. The application of related academic research and teaching practice emerges in an endless stream. The field of outlook has penetrated into everyday life in the macro field, it is triggered. Industrial innovation is a powerful engine to lead new industries. By using the methods of investigation, comparative induction and comprehensive analysis, the paper researches on constructing the training database of competitive sports talents in colleges and universities in China. Internet platform and innovative achievements of information and communication technology are used to build colleges and universities training database of competitive sports talents to enable it in physical education in colleges and universities, making greater efforts in teaching; competition training and scientific research are used to improve the level of cultivation and management secondary and level of competitive sports talents in colleges and universities.

2. Research on the construction of competitive sports talent database in Colleges and Universities under the background of “Internet +”

2.1. Research on the current situation of theory

With “Internet +” as universities, sports majors, sports talents as the key words, the author log on the academic resource platform such as CNKI and China's outstanding master's degree dissertation
database, and consult the books and literatures on the construction of the database for the training of sports talents in Colleges and universities. There are few theoretical studies on the construction of university sports talent training database, but some relevant studies have put forward some insightful academic opinions. However, most of the achievements focus on sports and sports resources, and lack of research on the construction of talent database, especially for the construction of university sports talent training database. Foreign scholars have little research on this topic. Few studies have been done, and there are few well-formed academic views and special works.

2.2. The application research

Through research and development, it is found that up to now, few universities have applied the database of competitive sports talents in practice, and even many universities have a low awareness of this aspect, which leads to the low quality and level of training of competitive sports talents. The reasons are as follows: Firstly, few universities have set up competitive sports majors, and they have not formed a scientific and rational talent training system and modern training. Although some colleges and universities have gained experience in the training of competitive sports talents, they still need to be improved in the aspects of teachers, curriculum, resources and practice bases; Second, the shortage of competitive resources in Colleges and universities, due to the relatively strict quality requirements of venues and facilities, which leads to the relatively difficult training of talents in competitive sports, which is also the actual situation prevalent in Colleges and universities; Third, the participation of colleges and universities. Because competitive sports require a higher technical basis for the participants, some people have an attitude of fear, fear and even avoidance. In the long run, it leads to a lack of interest in participation, reduces the number of training, and greatly reduces the possibility of tapping outstanding talents with competitive sports ability among the participants. These factors make it meaningless and valuable for colleges and universities to construct the database of competitive sports talents, and the practical application effect is not obvious.

3. The basic steps of constructing the database of sports talents in Universities under the background of “Internet +”

At present, two kinds of software, SQL Server and MySQL, are more convenient, fast and flexible for the use of database management system, while Access is suitable for relatively simple data storage. Among them, SQL Server is a comprehensive database platform, and the integrated business intelligence (BI) tool provides enterprise-level data management. Its engine provides more secure and reliable storage functions for relational data and structured data, provides core services for storing, processing and protecting data, and can build and manage usable and high-performance data applications for business. MySQL is a sophisticated SQL database management system, which is not only an open source data management system, but also a real multi-user, multi-threaded SQL database service. As a standardized language, it makes storage, update and access information easier, faster, stronger and easier to use. Therefore, in the context of “Internet +”, the establishment of the database of competitive sports talents in Colleges and universities can be constructed by using the above two database management systems.

3.1. Data selection

In the database of competitive sports talents in Colleges and universities, the first problem to be considered is the intellectual property rights of the database. Therefore, according to the relevant requirements of the Copyright Law, the Intellectual Property Law, the Patent Law and the Trademark Law promulgated by the State in China, we should ensure that all kinds of rights are not infringed when screening the resources of competitive sports talents. In the process of constructing the database of competitive sports talents and promoting the construction of network digitalization, workers should strengthen the awareness of property rights, manage and serve according to law, avoid infringement, and strive to act in accordance with the law in the construction, operation and management of the database. Secondly, there are clear provisions for the examination of the qualifications of competitive
sports talents in Colleges and universities. Resources mainly refer to the composition of elite college athletes, coaches and referees, sports research teams, specialized sports managers and college students with high level of competitive sports ability at the national, provincial, prefectural and municipal levels in Colleges and universities. They are classified and selected according to the professional characteristics of competitive sports talents in Colleges and universities. Generally speaking, they mainly involve education, management and post-training. Finally, the resource selection work closely related to competitive sports talents in Colleges and universities mainly refers to the resources of sports venues, facilities, equipment, training and so on. After sorting out these resources, data and information are mainly written, pictures, forms, audio-visual, video, animation, new and so on. Movies and television exist and provide processing materials for follow-up work.

3.2. Data acquisition system
Processing data resources is a complex and arduous task. Only by organizing specialized personnel be constructed to do a lot of specific work can a complete and valuable talent database. This requires that staff members not only have high computer professional skills, operation ability, innovation ability and professionalism, but also master the core technology of computer database, not only paper quality. Archives, materials, sports achievements, news reports, picture scanning, conference materials, multimedia resources and so on are collected, classified, tested and screened, and the accuracy, authenticity and reliability of the processed data resources are ensured. In addition, in the process of data resources processing and platform management, staff members should also count the information data from different sources and different formats. According to resources collection, transformation, indexing, cataloguing, publishing and so on, a visual platform with strong sense of art and innovation is formed.

![Diagram](image1.png)

**Figure 1** The basic composition of hardware of data acquisition system for sports talents database in colleges and universities in China

![Diagram](image2.png)

**Figure 2** Data acquisition and analysis system diagram of university competitive sports talents database in China
3.3. Construction of data platform
The ultimate goal of the construction of university sports talent database is to make university sports benefit through the Internet, form resource sharing, make the website become the link of communication between sports undertakings, sports workers and sports enthusiasts, and provide information and data as an important means to improve the level of University. The university sports talent management platform entered into the database mainly includes people. There are 10 modules, including introduction module, training organization module, competition training module, fitness guidance module, equipment resource module, education and teaching module, organization and management module, scientific research module, ice and snow industry module, sports material selection module. The text, image, sound, animation, video and other media information of the modules on the Web pages need effective websites. The platform system management can continuously satisfy the university teachers and students for information, make the information display more vivid and browse more convenient. In addition, according to the actual needs, we can fully realize the online interactive platform, make the information interaction and feedback between university sports workers and fans, strengthen the information exchange between sports departments and users, and enhance the social influence of ice and snow sports in Colleges and universities. At the same time, we should make the university website management update the content promptly and quickly, and ensure the stability and security of the website operation.

3.4. Data publishing
The website platform can construct the characteristic resources of university sports talents database according to the full-text database of talent introduction, training institutions, competition and training, fitness guidance, equipment resources, education and teaching, organization and management, scientific research, sports industry and transportation. The construction of 10 databases of full-text database for dynamic selection, such as the database management system of SQL Server and MySQL, can reveal the different types of documents according to the existing form of information data, and can select the template of different functions of TPI. With the definition of metadata, the construction of these databases can reveal the contents of documents to the greatest extent and facilitate inspection. According to the principle of demand, we construct each sub-database through the management system, then publish it through the Web site, the background management through TPI, and the user's needs are retrieved from the background to provide the information resources needed by the user, thus realizing the process of publishing and implementing the database.

4. Data Testing and Result Analysis
Based on Atlab and C++ simulation platform, a large number of simulation experiments of university sports data modeling and analysis were carried out. The original sample data of the data sequence originated from the relevant data information of competitive sports achievements provided by a university sports department. The statistical time of the data was September 20, 2017-June 30, 2018. Cloud computing database construction and sports data flow model for sports information management were carried out. The time-domain sampling results of sports data on two sets of statistical channels are obtained by using the method of non-linear time series analysis. The test sample set of university sports data is designed for database access model under cloud computing environment. K-means data clustering method is used to mine sports data. The analysis and simulation results show that this method is less time-consuming for massive university sports database modeling and data mining analysis, which shows that the real-time analysis of data is high and the data mining accuracy is high. Higher accuracy and reliability of data access retrieval.
5. Conclusions

This paper aims to analyze the database of competitive sports talents in universities in China under the background of “Internet+” and the conclusions are as follows:

1. In recent years, the rapid development of sports in China, especially the successful bid for the 2008 and 2022 Beijing Summer and Winter Olympic Games, has brought great opportunities for the prosperity and development of competitive sports. At the same time, it also provides opportunities for the development of sports in Colleges and universities, which requires colleges and universities to improve their sports human resources.

2. At present, many colleges and universities have established sports majors. There is no special database of sports talent information on the network to provide effective information. This has greatly restricted the quality management of sports talent training and the exchange of scientific researchers. This has become a theory in the development of sports. Therefore, the use of “Internet+” to improve the quality of college sports personnel training, the construction of relevant data information base for China's long-term development of sports personnel training and management plays a decisive role.

3. The simulation results show that the model has good real-time performance, high accuracy and reliability, which has a certain application prospects.

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