Retraction

Retraction: Optimization of Development Path of Social Sports Construction under the Background of Internet (J. Phys.: Conf. Ser. 1744 042219)

Published 16 September 2022

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The authors of the article have been given opportunity to present evidence that they were the original and genuine creators of the work, however at the time of publication of this notice, IOP Publishing has not received any response. IOP Publishing has analysed the article and agrees there are enough indicators to cause serious doubts over the legitimacy of the work and agree this article should be retracted. The authors are encouraged to contact IOP Publishing Limited if they have any comments on this retraction.

Retraction published: 16 September 2022
Optimization of Development Path of Social Sports Construction under the Background of Internet

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Abstract. With the improvement of people's living standards and the enhancement of their awareness of health, with the support of the national policy on fitness for all, the Internet and sports fields have been deeply integrated. The integration of sports resources in various fields and the transformation and upgrading of the traditional sports industry development model through the Internet have promoted the development of mass sports and brought huge social and economic benefits. Therefore, the purpose of this paper is to study the optimization of the development path of social sports construction under the background of Internet. In this paper, firstly, the meaning and background of Internet are understood by consulting relevant materials and watching relevant videos. Secondly, it is necessary to study the factors that are conducive to the optimization of the development path of social sports construction under the background of Internet, and find the correct path to promote the development of sports construction from three aspects: mode, technology and management methods. Through the research on the development path of social sports under the background of Internet, this paper finds that it is essentially the combination of modern Internet technology and traditional sports industry. In this case, a new type of industry will appear. This paper makes citizens experience the sports with Internet and traditional sports respectively, compares the experimental results, and analyzes the promotion of Internet to the optimization of the development path of social sports construction. The experimental results show that the combination of modern Internet technology and traditional sports industry can greatly promote the path optimization of social sports construction and development, and the public's enthusiasm for social sports has increased by about 25%, which provides an important reference for the optimization of social sports construction and development path under the Internet background.

Keywords: Internet Technology, Social Sports Construction, "Internet Plus Sports", Comparative Experiment

1. Introduction
Social sports, as one of the effective ways to carry out national fitness activities, affects the broad masses of the society with its smart organization form [1], simple practice methods and effective fitness effects. Social sports can not only meet the needs of the community for entertainment and fitness, but also enrich the spare time of the broad masses of people [2-3]. Social sports culture, as the main way of citizens' fitness, is one of the most important factors that directly affect the national fitness activities [4-5]. Therefore, the degree of its construction and development will directly help promote the sense of belonging of the whole society [6], promote the extensive development of national fitness activities and promote the degree of social civilization [7]. Combining modern Internet technology with traditional sports industry is of great significance to optimize the development path of social sports construction.

At present, with the continuous development of Internet technology, there are many achievements in the research of social sports by using Internet and other related technologies [8]. In foreign countries, Kim believes that teachers are the key factor to realize the innovation and development of college physical education, which makes the improvement of teachers quality the focus of college work, pushing college physical education teachers to the society, making them participate in the activities of different universities and social clubs, and accumulating experience and improving their ability in the process of participating in various social events [9]. In China, Li and Xiao Hua think that social sports culture presents the following main characteristics: regionality, sharing, edification and diversity. Later, on the basis of the past, it is concluded that social sports culture also has the dual characteristics of universality and voluntariness of participants [10].

Based on the Internet, this paper studies the optimization of development path of social sports construction. In this paper, first of all, by consulting relevant materials and watching relevant videos, we can understand the meaning and background of the Internet. Under the background of Internet, the correct path to promote the development of sports construction is sought from three aspects: mode, technology and management methods. By studying the development path of social sports under the background of Internet, it is found that it is essentially the combination of modern Internet technology and traditional sports industry. In this case, a new type of industry will emerge. Using Internet and traditional sports to let citizens experience sports, comparing the experimental results, this paper analyzes the promotion of Internet to optimize the development path of social sports construction.

2. Technical Research on Optimizing the Development Path of Social Sports Construction under the Background of Internet

2.1 Internet Technology

Definition of Internet technology: Internet technology refers to an information technology developed and established on the basis of computer technology. The widespread application of Internet technology is a sign of entering the information society. Different people and different books have different explanations for this. IT refreshes means upgrading to a faster and more intuitive version of the existing platform. However, when different hardware can better provide functions, significantly improve performance or obtain higher reliability, it can be considered to upgrade the hardware at the same time as the migration process.

Internet refers to giving full play to the optimization and integration role of the Internet in the allocation of social resources, deeply integrating the innovation achievements of the Internet into various fields of economy and society, enhancing the innovation and productivity of the whole society, and forming a new form of economic development with the Internet as the infrastructure and realization tool. Internet represents a new economic form, which means to realize the combination of Internet and traditional industries by relying on Internet information technology, complete economic transformation and upgrading by fully optimizing industrial production factors, updating traditional industrial business systems, reconstructing traditional industrial business models, etc., and enhance innovation and productivity, thus forming an implementation tool based on Internet and driving a new form of market industrial economic development in various fields of society.
2.2 "Internet Plus Sports"
"Internet Plus Sports" refers to the thinking mode of using the Internet to the whole market, users, products, industrial value chain and the whole business ecology of traditional sports industry, combining with the scientific and technological means of "Internet, big data, cloud computing", etc., so as to build a new ecology in the field of sports industry with the Internet as the platform, information and communication technology and Internet thinking.

User concept is the core concept running through "Internet Plus Sports", and its essence is people-oriented. It is necessary to find out the user's habits and preferences for various consumptions from the various sports of citizens' fitness, and to develop a breakthrough point for the organization and introduction of competitions, so as to accurately stand in the market and then occupy the market. At the same time, after understanding the needs of users, the supply and demand effect of the sports market will have a negative effect on government departments, urging the government and its social organizations to find the right standards for the needs of venues, facilities, functions and scale, and gradually improve the venues and facilities.

The integration of "Internet" and "Sports" forms a new situation of "Internet Plus Sports", which aims to combine mobile Internet users with sports venues in real time by using mobile Internet technology, information and communication technology and Internet platform, and create a new ecological platform integrating the management and operation of sports venues, sports venue services and other developing emerging industries. According to the investigation and study of public fitness platforms, the commercialization modes of mass sports fitness platforms such as "group sports communication", "fun sports" and "music football" are ideal in market promotion at present. After users log in through mobile APP and computer website, this comprehensive interactive platform with multiple functions (physical fitness testing for athletes, technical and fitness training for sports enthusiasts, collective organization of sports competitions, online interaction for sports enthusiasts, etc.), According to the user's choice of sports events, determine the time of using the venue, book their sports venues, or directly locate their own location, and let the Internet search for the nearest sports venue, which is very simple in operation and faster than the traditional manual booking.

Generally speaking, compared with the previous sports event media industry pattern, the advantage of sports real-time event communication on mobile phone client is better, and there is still huge development space for sports event communication among mobile Internet mobile phone customers in the future. According to the analysis of mobile internet media, different mobile phone clients have great differences in sports event dissemination. Most Internet media will selectively disseminate the games according to their own media advantages. Having a single form of interaction is not conducive to promoting the innovation of Internet PC clients. Small sports event original news still exists in mobile Internet mobile phone clients. While increasing the communication between mobile phone clients, combined with the communication of diversified and comprehensive events, we will start to build the original mobile phone client to watch events and increase the client platform of user communication platform. Through the refinement of the client's own status and the outstanding thickness of sports news, we will improve the development speed of sports event communication in the era of mobile Internet and the brand effect of comprehensive sports event communication in mobile phone clients.

2.3 Internet Related Algorithms
Internet is not only a data collection, but also a decision support system. It reorganizes and integrates information from multiple Internet terminals or other data sources, and provides a unified user interface for a certain theme application on the upper layer. End users can directly query, analyze and make decisions on physical exercise data. The related algorithm is as follows.

Let $s$ be the training sample data set, and the category identification attribute $ins$ has $m$ independent values, that is, $m$ classes are defined, $i=1, \ldots,m$, is the subset of the data set $s$ belonging to the $C_i$
class, and the number of tuples in the subset \( R_i \) is expressed by \( r_i \). The expected information amount of set \( s \) in classification can be given by the following formula.

\[
I(r_1, r_2, \cdots, r_n) = -\sum_{i=1}^{m} P_i \log_2(P_i)
\]

(1)

Where \( P_i \) indicates the probability that any sample belongs to \( C_i \) class, \( P_i = r_i / |S| \), where \(|S|\) is the number of tuples in the training sample data set.

If \( S_{ij} \) indicates the number of tuples belonging to \( S_j \) class in subset \( C_i \), the entropy of attribute \( A \) for classification \( C_i(i=1,2,\cdots, m) \) can be calculated by the following formula.

\[
E(A) = \sum_{j=1}^{v} \frac{S_{ij} + \cdots + S_{mj}}{|S|} I(S_{ij}, \cdots, S_{mj})
\]

(2)

Let \( w_j = \frac{S_{ij} + \cdots + S_{mj}}{|S|} \) then \( w_j \) be the weight of \( S_j \) subset, which indicates the proportion of \( S_j \) subset in data set \( S \), and the expected information amount of classification \( C_j \) for each value of attribute \( A \) can be calculated by the following formula.

\[
I(S_{ij}, \cdots, S_{mj}) = -\sum_{j=1}^{P_y} P_y \log_2(P_y)
\]

(3)

Where \( P_y = S_{ij} / |S| \) indicates the proportion of \( S_j \) belonging to \( C_i \) class in the subset.

3. Experimental Research on Optimizing the Development Path of Social Sports Construction under the Background of Internet

3.1 Experimental Data

In this paper, under the background of Internet, the current situation and existing problems of social sports development are taken as the research content, and the nine districts in this city are taken as the research objects. On this premise, the urban and township citizens in each district are taken as the main research objects, and stratified random sampling is carried out according to the research needs.

3.2 Experimental Process

Firstly, this paper collects, reads and studies authoritative related documents about Internet and social sports, and provides academic background and scientific basis for the research by collecting and consulting a large number of documents related to this paper. According to the research content and needs, before formulating the questionnaire content, this paper interviewed experts related to sports industry, social sports science and mass sports theory, made sufficient preparations for the design of the questionnaire content, carefully screened the questions to be raised in the questionnaire, extracted the related questions most closely related to this paper, and then conducted a questionnaire survey on the citizens. At last, this paper makes the citizens experience the sports with Internet and the traditional sports respectively, compares the experimental results, and analyzes the promotion of Internet to the optimization of the development path of social sports construction.

4. Experimental Analysis of Optimizing the Development Path of Social Sports Construction under the Background of Internet
4.1 Public's Views on "Internet Plus Sports"
In this paper, 500 randomly selected citizens were investigated by questionnaire. Thus, we can get the public's understanding, liking and cognition of traditional sports and internet plus sports, so as to get a more real understanding of the public's views on internet plus sports. The survey results are shown in Table 1 and Figure 1.

Table 1. An analysis of the public's views on sports in internet plus

|                              | Understand | Have been carried out | Like very much | Think it works |
|------------------------------|------------|-----------------------|----------------|---------------|
| Traditional sports          | 466        | 432                   | 342            | 328           |
| Internet plus sports        | 478        | 470                   | 436            | 458           |

Figure 1. An analysis of the public's views on sports in internet plus

It can be seen from the survey data that most citizens prefer social sports with Internet technology. It is considered to be more effective and more in line with the needs of the public. This is mainly because the core idea of "internet plus Sports" is people-oriented, which can identify users' habits and preferences for various consumption from various sports of citizens' fitness, and develop a breakthrough point for the organization and introduction of competitions, so as to accurately stand in the market and then occupy the market. Internet technology first collects citizens' opinions on social sports, then stores and analyzes these data, so as to know the physical exercises that citizens want, and adds some entertainment items to make them more interesting and promote the sound development of social sports.

4.2 Changes in the Public's Love for Social Sports
In this paper, 500 citizens who accepted the questionnaire survey were randomly divided into A and B groups, with an average of 250 people in each group. Then, let the citizens of Group A use the sports method of "internet plus Sports" for one month, and let the citizens of Group B also use the traditional sports method for one month under the same conditions. During the experiment, the citizens were investigated every five days, and the changes of their love for social sports were counted. We visually
express the change of people's love for English learning in groups A and B, and fit the curve according to the mean value respectively. As shown in Table 2 and Figure 2.

**Table 2. Change of citizens' love for social sports**

|                | Initial | After 5 days | After 10 days | After 15 days | After 20 days | After 25 days | After 30 days |
|----------------|---------|--------------|--------------|--------------|--------------|--------------|--------------|
| Traditional sports | 50%     | 53%          | 57%          | 55%          | 58%          | 57%          | 59%          |
| Internet plus sports | 50%     | 54%          | 58%          | 64%          | 68%          | 70%          | 75%          |

**Figure 2. Change of citizens' love for social sports**

From the experimental results, it can be seen that the people in Group A who use the sports mode of "internet plus Sports" proposed in this paper are gradually increasing their love for social sports, and the increasing speed is faster than that of the people in Group B who use the traditional sports mode. Moreover, the people in group A love social sports much more than those in group B. This proves once again that the Internet plays a positive role in optimizing the development path of social sports construction, and greatly promotes the enthusiasm of citizens for physical exercise, which is of great significance. This has an important relationship with the application of Internet technology, which combines Internet users with sports in real time, and creates a new ecological platform integrating the management and operation of sports venues, services of sports venues and other developing emerging industries. In the process of normal sports, many interesting sports have been incorporated, which has aroused the enthusiasm of the citizens and enabled them to get effective exercise, thus greatly promoting the healthy development of social sports.

5. Conclusions

Under the background of Internet, this paper studies the optimization of the development path of social sports construction. In this paper, the meaning and background of Internet are understood by consulting relevant materials. Secondly, under the background of Internet, it studies the factors that are beneficial to optimize the development path of social sports construction. By studying the development path of social sports under the background of Internet, it is found that it is essentially the
combination of modern Internet technology and traditional sports industry. In this case, a new type of industry will emerge. In this paper, the Internet and traditional sports are used to experience sports for citizens. By comparing the experimental results, the promotion of Internet to optimize the development path of social sports construction is analyzed. This provides an important reference for optimizing the development path of social sports construction under the background of Internet.

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