



# Sports Information Communication Model Based on Network Technology

Guohua Shao<sup>(✉)</sup>

Physical Education Institute of Inner, Mongolia Normal University, Hohhot 010022, China

**Abstract.** Aiming at the sports information service platform of communication subject, communication object and media are analyzed, on this basis from the perspective of statistics in sports as an example to analyze the characteristics of information and channel sink. By using the analytic hierarchy process, from the network sports information content, audience experience, network sports information organization and dissemination of sports information and network environment in four aspects construct the sports information dissemination model evaluation index system, and determine the weight of each index. The results show that: the premise of sports information dissemination model based on network technology in order to serve the public, the right to guide the public to build a harmonious sports information network for the purpose of the business model, to the development of sports website, expand business partners, re positioning the sports network station commercial operation mode, break the old ideas, improve the connotation of operation mode sports website.

**Keywords:** Sports information communication · Network technology · Communication factors · Index weight

## 1 Introduction

Currently belongs to the information age, and the Internet to accelerate the upgrading of the information age [1–3]. Network technology as the characteristics of the modern means of communication and economic forms gradually penetrate into people's life, study, work and recreation and fitness field [4–8]. This paper aims at the research of sports information communication mode, in order to explore the reform way of sports information communication mode from the perspective of network technology [9–13]. Li and Wang [14] pointed out that the future of China's sports information dissemination website portal will combine and use more new technology, will promote the transformation of audience "to" user ", the difference of comprehensive portal trend intensified, network video will become the main communication forms of sports information network. Zhang et al. [15] theory and method of operation of communication, standing in the angle of sociology, analysis in the network sports information communication problems, pointed out that in the process of sports information dissemination for cultural conflict, ethical loss and other issues, in the face of network trust crisis, and actively

put forward the way to solve the problem. To improve the sense of social responsibility of network media. Wang [16] by using the method of questionnaire investigation and factor analysis etc., to Sina, Sohu, NetEase, Tencent and other 4 major portals as the research object, the main factors affecting the extraction of Chinese large portal sports information dissemination effect and classifying and naming, the proposed site taking more advanced techniques. Effective measures to improve their own strength. Li [17] pointed out that the audience of sports information needs from the passive acceptance of the past, to live entertainment, to meet the self-competition pleasure, and sports information media to meet the audience of these changes, also gradually changing sports information communication mode. In this paper, based on analyzing the sports information service platform and transmission mode of sports information dissemination elements, constructs the evaluation index system of sports information communication mode, in order to improve the sports information dissemination mode of our country to provide the feasible advice.

## 2 Communication Model of Sports Information Service Platform

### 2.1 Service Platform Communication Main Body

The sports fitness information service platform based on the related sports venues, sports audience to participate in fitness activities such as badminton, basketball, indoor swimming pool, Futsal Soccer field, tennis court, O2O (Online To Offline) loop to booking online and offline activities, back online comment form of sports communication. The main body of sports fitness information service platform is divided into the government to buy services such as sports information service platform and corporate sports information service platform.

The government purchase service sports information service platform has three main Go Sports, Group Pass, Sports in Jiading, Go Sports in the Hubei Province Sports Bureau, need reservation venues in Guangzhou city; Groups Pass Sports Bureau, Sports in Jiading need reservation venues; in Jiading District Sports Federation, to venue booking.

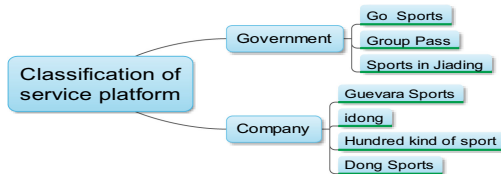


Fig. 1. The main body of sports fitness information service platform.

Corporate sports information service platform has four main Guevara Sports, idong Hundred, kind of sport, Dong Sports, Guevara Sports in Shanghai, which provides a solution for urban life; idong in Shanghai, mainly for the Hundred kind of sport experience; in Beijing, mainly for Dong Sports golf movement; sports life in Beijing. The main body of information dissemination platform for sports fitness information is shown in Fig. 1.

## 2.2 Object of Sports Fitness Information Service Platform

The object of the sports information service platform construction of communication mainly includes all objects except platform operation and maintenance of venues, cooperation, the communication objects include sports enthusiasts (C1), sports organizer (C2), industry partners (C3). Where: C1 as the communication object can receive accurate, timely, or through independent query way to find the platform for the dissemination of sports venues or activities, this is the platform as the core group of users, but also to remove the venues resources, sports fitness information service platform to absorb the basic source of customers; C2 belong to the second class the communication object, in the sports fitness information service platform for different communication subject in this category, there are still some discrimination; C3 industry partners, currently about O2O closed loop as the main means of communication, but the real consumption of the product or service must be experienced by the consumer online activities, open to experience exercise, the site, equipment, medical security and other factors supporting. O2O online and offline interactive transmission line as shown in Fig. 2:

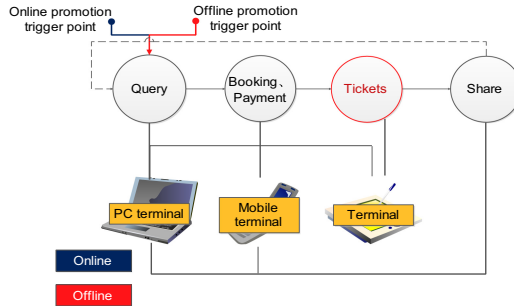


Fig. 2. O2O online and offline interactive communication Roadmap.

## 2.3 Sports Fitness Information Service Platform Carrier

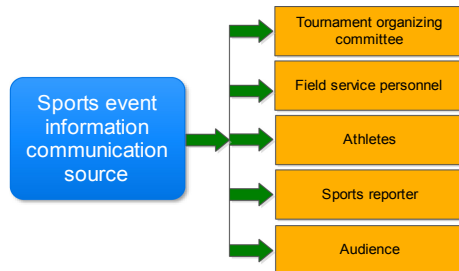
At present, the network media information service platform construction of sports mainly as the official website of mobile phone, APP (Application), WeChat, micro-blog, public account, which is currently the four major areas of information platform service providers launch the main content. With the use of four media, in various sports information service platform of actual operation and maintenance of the media, the official website has the largest proportion of the sports information dissemination effect is still in computer “end the most authoritative and most comprehensive display of the content. The rapid development of mobile phone APP, a large proportion of the key factors to replace the use of computers: convenient, mobile, low power consumption, etc. Although there are traditional sports booking service information platform based on Web and long, and the telephone information service, but with the addition of LBS (Location Based Service), the change of location-based services and social dating mode, stimulate the development efforts to the spread of O2O mode based platform for service providers,

occupy the important position in front of all mobile APP platform in the relatively strong influence. WeChat public number and the use of micro-blog public account, it reflects the effectiveness of the new network of social networking tools during the difference between the number of WeChat public closer to word of mouth. Sports fitness information service platform for the network media carrier, as shown in Table 1:

**Table 1.** Physical fitness information service platform of the network media carrier.

Category	Official website	Mobile APP	WeChat public number	Micro-blog public account
Go Sports	○	○	○	○
Group Pass	●	○	○	●
Sports in Jiading	○	○	●	○
Guevara Sports	○	●	●	●
idong	○	●	○	●
Hundred kind of sport	○	●	○	○
Dong Sports	○	●	○	○

### 3 Sports Information Dissemination Elements



**Fig. 3.** Sports event information dissemination source.

The basic information dissemination process is completed, usually requires three elements of information source, information and information, in this process, the source is the seven point of the communication process, as the main factors in the dominant position, is the sponsor of communication activities. To some extent, the quality and quantity of the dissemination of the contents of the source is the key to determine the success or failure of a communication activity and the effectiveness of the spread of the key as shown in Fig. 3.

Sports event information dissemination, for example, the source of information dissemination as shown in Fig. 4.



Fig. 4. The process of sports information dissemination.

### 3.1 Information Dissemination of Sports Ink

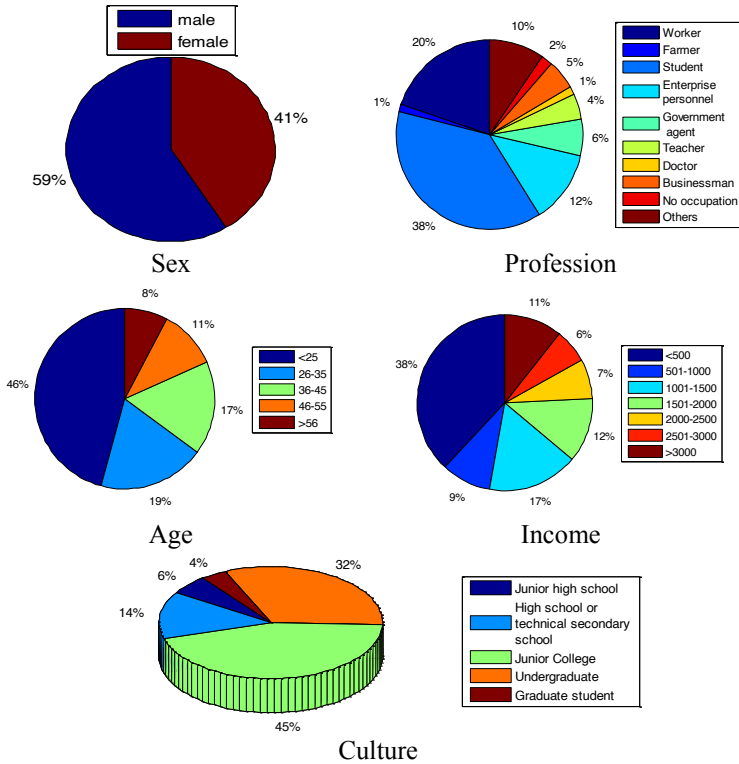


Fig. 5. The basic situation of the National Volleyball League Division XX audience statistics.

The sink refers to the audience or the receiver, the receiver is the information dissemination activities of various types of reflection and. The destination is one of the two poles of the communication process, and plays important role in the communication process, a complete transmission of information sent by the source, only to reach the destination is not complete. Not only that, the destination information or products to consumers, the two communicators of information content, feedback communication activities of the participants and the communication effect. Therefore, the Organizing Committee on publicity work should be taken into account when the sink, according to predict their psychological needs. The destination of the situation more understanding more can put me on the direction of propagation, for they can be targeted propaganda work. The basic situation of XX league ranking division audience as shown in Fig. 5. We

can see from Fig. 5, a sink population XX audience Division National Volleyball League: more men than women; the young than in the elderly; occupation for students, workers and higher income white-collar class; higher educational level, mostly educated; lower middle income. The results of the survey on the XX sports news audience structure is basically the same.

**3.2 Channels of Information Dissemination of Sports Events**

Investigation of the audience access to information channels are conducive to the Organizing Committee of the event in the event of information publicity strategy, focus on the choice of the mass media. According to the Shan [18]: survey shows that the potential audience to obtain external information mainly by television, newspapers, Internet and friends, accounted for 40%, 39.7%, 31%, 29.7%, radio, magazine supplement. The three largest audience in addition to “friends” this channel is the other of the mass media in the remaining four. The National Volleyball League Division XX audience love watching TV, usually watch TV shows and TV time as shown in Table 2.

**Table 2.** List of TV programs that the audience likes to watch during the League

Sort	TV program	Frequency	TV station	Frequency	Time to watch	Frequency
1	Sports	465	CCTV 5	463	19:00–20:00	229
2	News	306	CCTV 1	356	20:00–22:00	115
3	Teleplay	255	Henan 1	137	08:00–10:00	110
4	Entertainment	239	CCTV 6	131	11:00–13:00	99
5	Film	228	Zhengzhou TV	118	22:00–00:00	73
6	Others	11	Henan 2	109	06:00–08:00	62
7	--	--	CCTV 4	79	Others	53
8	--	--	Henan 3	75	--	--
9	--	--	Others	49	--	--

**4 Empirical Analysis**

**4.1 Construction of Evaluation Index System of Sports Information Communication Mode**

The factors that affect the communication effect of sports information based on network technology in our country are mainly caused by the differences of age, gender, occupation and education level. This article from the content of sports information network (U), the audience experience (V), sports information organization and communication network (X) and network sports information environment (Y) to construct four perspectives influence factors of sports information dissemination model evaluation index system based

on. The authenticity of the impact factor of U information (U1), (U2) the importance of information timeliness, information (U3), the original information (U4), comprehensive information (U5) and the number of information (U6); recreational impact factor of V information (V1) professional, information transmission (V2) varieties, information (V3), information interaction (V4) and practical information (V5); the impact factor of X classification and organization of information (X1) analysis of communication and information (X2); the impact factor of Y website credibility (Y1), the number of Internet users to participate in the dissemination of information (Y2) and advertising (Y3). Based on this, the evaluation index system of sports information communication mode is shown in Fig. 6. Based on the above research, the evaluation index system of sports information communication mode can be used to evaluate the model effectively, and it can help to improve the model.

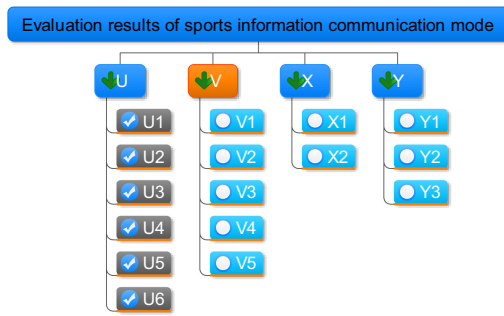


Fig. 6. Evaluation index system of sports information communication mode.

### 4.2 Determine the Weight of Evaluation Index

The determination of the index weight has the following three steps [19]:

**STEP1:** Constructs 22 comparison judgment matrix.

Each level of factors relative to the level of a single factor can be simplified to a series of single factor comparison of the judge.

**STEP2:** Will initialize the judgment matrix into a comprehensive judgment matrix.

First of all, the judgment matrix is initialized according to the calculation method of the geometric mean of the calculated 22 comparisons between each index value, transforming it into the final matrix, then, for the final matrix according to formula (1) calculation method is shown by synthetic judgement matrix.

$$\begin{cases} A(S) = [a(S)_{ij}]_{n \times n} \\ a_{ij} = k^* \sqrt[k]{\prod_{S=1}^k a(S)_{ij}} \end{cases}, S = 1, 2, \dots, k; i, j = 1, 2, \dots, n \quad (1)$$

**STEP3:** Calculates the eigenvector corresponding to the largest eigenvalue of the comprehensive judgment matrix, and then the vector is normalized, which is the weight of each index. According to the 1–9 scale method proposed by T.L. Saaty, the 22-comparison judgment matrix is constructed, and the weight of each index is calculated according to the AHP model theory. The results are shown in Table 3:

**Table 3.** Calculation results of each index weight

Index	Weight	Index	Weight	Index	Weight	Index	Weight
U	0.38	V	0.29	X	0.21	Y	0.12
U1	0.25	V1	0.32	X1	0.42	Y1	0.44
U2	0.20	V2	0.25	X2	0.58	Y2	0.37
U3	0.16	V3	0.20			Y3	0.29
U4	0.18	V4	0.15				
U5	0.10	V5	0.08				
U6	0.11						

## 5 Conclusion

With the development of computer network, we should strengthen the comprehensive quality of the employees in order to serve the public and guide the masses. Government led, Internet users to participate in the construction of multimedia network sports communication environment, building a harmonious network of sports information dissemination environment. The development of sports website business model, expand the business partners, re positioning of the commercial operation of the sports website model, playing the old concept, improve the connotation of sports website operation mode.

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