
“Internet Plus” Time Sports Law and Characteristics Research

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Abstract

Presently internet has gradually been integrated into social life, however, sports communication way in China is so traditional that is not beneficial to China's sports development. The key to rapid development of sports is sports propagation. To select proper and most conducive sports communication medium can facilitate communication speed to a great extent, and internet is such a most advanced communication media. On the basis of the proposition of the concept “Internet plus” era, characteristics thereof is analyzed, concluding the key task of developing sports at present is to develop a brand-new sports communication mode by combining the application of internet into reforming sports communication mode with sports communication rules and characteristics. Initially it states the concept of “Internet plus”, analyzes its closely linkage with sports propagation, pointing out the establishment of brand-new sports communication path through intermediary as micro blog, micro letter, Sohu and other micro culture, smart phone, APP software platform these advanced technical product with new sports communication characteristics and rules under the background of “Internet plus” can, build foundation for the development of sports undertakings, and finally fulfill “sports micro propagation”, sports events video software platform these two new kinds of communication ways.

Keywords: Internet Plus, sports propagation, intermediary

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INTRODUCTION

In modern society, physical health has attracted greater attention; As a main way to enhance health and improve national cohesive force, physical excises, have received widely attention, which not only can improve physical quality, mold character, but also improve happiness index of people's life. And the emerging of network is of great significances in the development of sports undertakings in the manner guiding sports development.

Network has gradually become a subject in social life, and thereby it should be incorporated to drive the development of sports undertakings that is a fastest and efficient way to develop sports. Proposition of “Internet plus” programming not only offers opportunities for traditional industries but also has certain impetus to sports propagation. Zhou Hong-Duo pointed out that “Internet plus” was a brand-new concept, whose internal meaning should be comprehended before utilizing such new concept and developmental mode. In his thought, fusion was the core definition of “Internet plus”, all-around development and comprehensive

fusion with fusion should be done by traditional industries or industry or agriculture (Jiang 2014, Jiang et al. 2016, Liu 2014).

Through all sports structure's investigation, Chen Yu-Zhong studied modern sports characteristics, value and development orientation, obtained relative sports data and sort out, finally got the conclusion. He pointed out the development tendency of modern sports moving towards new techniques and high technology not only facilitated all-around development of China's sports, but also greatly affected China's residents' life and exerted a great impact on public satisfaction and sense of happiness. While Liu Xiao-Chun presented that with current China's national conditions, China's sports communication industry was multidirectional and moving towards globalization, while internet advantages should be brought into full play, utilizing network to rapidly propagandize China's sports culture, thus the uppermost communication trend in future China's sports communication industry was applying internet convenience and rapidness to make sports information widely known, promote sports information's timeliness and popularization, spread

recognition of the importance of sports, and spread sports everywhere and all love sports (Chen et al. 2013, Li et al. 2013, Liang 2013, Song 2013).

On one hand, sports affect individual physical and psychological health, on the other hand, is of certain value in building national image internationally. Jin Wen-Wen took relations between sports communication and national image as main research orientation, further highlighted the importance of sports communication by analyzing the effect of sports communication on national image. She suggested that sports communication was one of evaluation criterions on whether a country's information communication was advanced in technique, leading in communication way, having timely and correct communication effects, also reflecting countries' advancement in high technology development, and was critical to China's international position and image (Pu 2013, Tang et al. 2013, Xing et al. 2013, Zhang 2016).

On the basis of present brand-new concept of "Internet plus", China's sports communication rules and characteristics is combined to make a conclusion that new sports communication path under "Internet plus" era, having sports more rapidly, convenient, correctly and widely propagandized, that guides the innovation of sports industry.

ESTABLISHMENT OF SPORTS DEVELOPMENT NEW MODEL

Sports under "Internet Plus" Era

Prime minister Li Ke-Qiang put forward programming of "Internet plus" in the 12th National People's Congress, striving to combine internet with national industries to develop a new type industrial structure. The proposition of such concept was an ideological advancement in China's economic industrial development, overturning the whole national ideology. In the following, such ideology should be integrated into substantial economy in all walks of life to comprehensively implement the definition of "plus". Only then could reach the rapidly development of China's economy, surpass foreign economy, take a more stable position in the world, and strengthen China's comprehensive strength.

As the name suggests, definition of "plus" to integrate into all kinds of traditional industries including all kinds of traditional department shop's goods, banks, traffic, news, agriculture, industry on the basis of the development of internet, make full use of timeliness and convenience of internet to build internet

plus education, internet plus medical treatment, internet plus traffic, internet plus three rural (agriculture, peasant, and rural area), internet plus industry these various industrial structures. Not only the mutual assistance between "Internet plus" and traditional industries should be realized, but also the relations between "Internet plus" and primary, second industries should be well handled so that the new situation of "Internet plus" could be covered all industries, and the great transformation and revolution could be implemented in industrial structures. Such a brand-new industrial structure made a breakthrough in the limits of tradition's understanding on internet, strengthened linkages among all industries to reach a new level.

Besides, industrial internet, agricultural internet, educational internet, medical internet as well as others impelled innovation and development inside industries, and moreover provided good opportunities to many job hunters. In that case, more talents were required, which also solved the issue of University students' employment difficulty to a certain degree, bringing the competence of job hunters into play and also guaranteeing social stability greatly.

What widely used in internet platform were, all kinds of payment software, online purchasing goods system and so on; internet derivatives as micro culture in the form of micro blog, micro letter, Sohu, and all kinds of APP platforms like DiDi taxi hailing, Fast taxi hailing that had ever been popular for a time, have deepened into all aspects of life. The new emerging strength, "Internet plus", created a new field for developing traditional industries, building good environment for development, and the formation of new sports development pattern became inevitable. Nowadays, as network develops, programming of "Internet plus" should be vigorously supported so that balance and steadily advancement can be reached in all industries and gaps between industries' development can be narrowed.

Establishing on internet and traditional industries respective advantages, such new development mode avoided weakness, stimulated consumers' power of consumption, and motivated innovation capacity inside industries, having enterprises rapidly developed with constantly mutual improvement. At the same time, safety problem inevitably become the key to restrict such development mode's development and universality. Therefore, it is necessary to do a good job in safety service, protect consumers' rights and

industrial information safety, avoid the outlaws taking the advantage, and implement safely and all-around development.

As one kind of traditional industry, sports cannot develop only through relying on traditional development mode, which has difficulties in promoting rapidly advancement of sports industry. Sports industrial development should, under the guiding of “Internet plus” era that impels and guides sports industry, constantly advance and reform and finally implement the construction of new pattern. During sports development history, as one of important factors in sports development, sports communication is responsible for propagandizing sports culture and information, impacting on national sports consciousness and ideology, and developing sports spirits. It is very beneficial to sports industrial reformation and development in the manner regarding internet as communication intermediary to transmit and expand sports information.

As one of representatives of network, micro-culture should be focused in sports information share, and sports information communication process. Thus, a new communication way on the basis of culture can be developed that is “Sports micro-propagation”. As the utilization frequency of public on micro-blog and micro-letter grows at present, focus on these micro-cultures has grown, releasing sports information through micro-blog, micro-letter, Sohu, Tencent and others could attract masses attention in a bigger range and bigger extent, and have sports information spread in masses life the first time around.

Enlightening by DiDi taxi hailing, Fast taxi hailing such software’s research and development, sports events video software platform can be developed through all kinds of mobile phone APP platform to finally spread sports information. Such communication way could enable sports enthusiasts to watch sports program in their home, rather than concerning about queuing up for buying tickets, thus, a lot of time can be saved.

To sum up, it is a new matter to develop new sports communication mode under “Internet plus” era, which should be met with a brand-new state and full enthusiasm and integrated as soon as possible so that can finally fulfill the communication of sport information in masses.

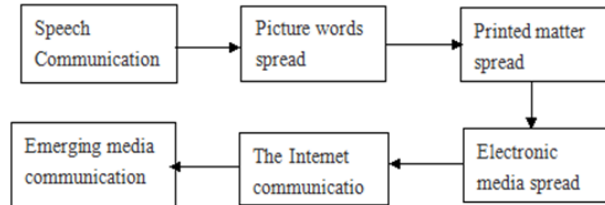


Fig. 1. The way of the sports development

Traditional Sports Communication Rules and Characteristics

Presently, physical exercises are widely spread in public life. As a development path in physical exercises, sports communication plays an important role, and thereby the issue of sports communication has become the key to sports development. There are many sports communication ways, from which sports newspaper is included.

There are many communication ways for sports since the sports information can be known only by sports propagation. With the development of economy and constantly updating of information technique, sports communication paths have increased and the communication methods thereof become more and more developed. This is of great significances in China’s residents’ daily life. Ways of sports communication as Fig. 1.

Above is China’s sports communication path, from which the most original one is speech communication that is to conduct interpersonal communication through language. Next is picture words spread, radio and TV communication, internet communication and emerging media communication includes mobile phone newspaper and mobile TV. Among them, emerging media communication is the constructed new sports communication mode under “Internet plus” era.

Here are all traditional sports communication ways: As the most basic and traditional sports communication way, speech communication is the origin of sports communication. As the name implies, speech communication is spreading information by language, from which the basic way is interpersonal communication; in an era without network, speech communication is a kind of most widely sports information communication way, whose drawback is time-consuming, poor timeliness and long communication cycle.

With the advancement and development of era, picture words spread appeared that spread information by printing sports information in papers and releasing them to masses in the form of leaflet. Although the

communication way had wider communication range, it still could not implement inform masses the first time around, while there would be a great expenditure since more time and labors should be consumed to copy sports information.

The appearance of TV offered better opportunities for sports information communication. Television had sports information and information synchronized by television news and TV sports programs that reached timeliness and accuracy. However, with the emergence of mobile phone and internet, masses have spent less time in television, and thus attention to sports would also be lower, and then making full use of internet is the key.

Though above several kinds of traditional sports communication ways could spread sports information, they have certain drawbacks in time saving and not convenient enough to enable sports information to be received anytime and anywhere, universality and accuracy should also be improved. Therefore, it is still critical to develop new sports communication way under the background of current highly developed internet.

Sports Communication Characteristics

At present, with the gradually development of economy and significantly improvement of people's living standards, mobile phone has become an inseparable tool in people's life. With regard to this, mobile phone TV, mobile phone newspaper, mobile phone live TV have become one of the most popular media communication ways. By mobile phone, network can be focused and network information can be learnt anytime and anywhere.

The development of sports is related the improvement of China's comprehensive national strength. With the development of network, sports information communication is also affected to a certain extent. For many sports enthusiasts, except for learning sports information by TV program, they gain convenience as mobile phone emerges, and are able to watch Sports program anytime and anywhere without limits of time and address.

As emerging media, mobile phone media mainly includes mobile phone TV, mobile phone newspaper, mobile phone live TV and else, which is well-received by masses and gradually becomes the powerful impetus to drive sports communication development that is a major direction of developing China's sports communication undertakings in future stage.

At this stage, China's sports industrial development is affected in various aspects, whose development is still slower by comparing to developed countries. Among them, main constraints to China's sports development are imperfect sports industrial management system, lacking of profound public sports consciousness, not widely sports communication.

Among numerous media communication ways, network and mobile phone are most popular media communication ways and of the highest credibility. This suggests that in regard to emerging media communication ways, mobile phone and network, lead sports communication development in future phase, whether they can be widely applied into masses life is one of the key factors to develop China's sports and also the impetus to facilitate China's sports undertakings.

Network sports communication is one of the widest and well-received ways of sports communication application at present. With the development of internet, masses life focus has also shifted from daily life to network life. More and more people exchange with outside world through internet, from QQ chatting to international exchange, all cannot do without internet. As one of focus issues in masses life discussion, sports communication is also affected by network. Such way offers convenience to masses and becomes one of the most direct and convenient way for masses learning sports information.

This shows that the construction of internet sports communication platform is by far the key to innovate communication way. As "Internet plus" era most popular micro-blog, micro-letter and Sohu, on this basis, establish a kind of new "sports micro communication" communication way as communication media that could more widely and timely spread sports information to masses' daily life the first time around. This is quite beneficial to China's sports undertakings' development that could facilitate wider and faster sports undertakings' development. Besides, develop a sport event video software platform on the basis of internet platform, in which releases all kinds of sports events information can enable sports enthusiasts to watch sports programs in their home.

Under "Internet plus" era, the construction of two kinds of sports communication ways realize more rapidly, convenient, correctly and widely sports communication, which is the advantage that any one way in traditional sports communication cannot simultaneously have. It is an inevitable trend for new communication way combining traditional ways'

advantages and avoids disadvantages thereof in sports information communication that provides new direction for sports information.

Ultimate Ratio Verification

Taking prediction process of sports information network media users’ amount changes as an example, state the model’s actual prediction process. Establish time sequence concerning users’ amount changing rate as following:

$$x^{(0)} = (x^{(0)}(1), x^{(0)}(2), \dots, x^{(0)}(8)) = (1259, 4706, 5828, 7537, 7330, 15456, 23400, 26601)$$

Solve ultimate ratio $\lambda(k)$

$$\lambda(k) = \frac{x^{(0)}(k-1)}{x^{(0)}(k)} \tag{1}$$

$$\lambda = (\lambda(2), \lambda(3), \dots, \lambda(8)) = (0.27, 0.81, 0.77, 1.03, 0.47, 0.66, 0.88) \tag{2}$$

By (2), it is clear that all ultimate ratios cannot meet dropping in admissible coverage ($e^{-\frac{2}{8+1}}, e^{\frac{2}{8+2}}$), do conversion handling with sequence $x^{(0)}$, the purpose is to let it to drop in admissible coverage. Take constant $c = 20000$, make translation conversion:

$$y^{(0)}(k) = x^{(0)}(k) + 20000, k = 1, 2, \dots, n \tag{3}$$

Then ultimate ratio is:

$$\lambda = (0.86, 0.95, 0.94, 1.00, 0.77, 0.82, 0.93) \tag{4}$$

(2) Ultimate ratio judgment

By (4), we can know $\lambda \in (0.77, 1.24)$, therefore it can use $y^{(0)}(k)$ to make GM(1,1) model prediction.

GM(1,1) Modeling: For original data $y^{(0)}$, make one-time accumulation, that:

$$y^{(1)} = (21259, 45965, 71793, 99330, 126660, 162116, 205516, 224787)$$

Construct data matrix B and data vector Y :

$$B = \begin{bmatrix} -\frac{1}{2}(y^{(1)}(1) + y^{(1)}(2)) & 1 \\ -\frac{1}{2}(y^{(1)}(2) + y^{(1)}(3)) & 1 \\ \vdots & \vdots \\ -\frac{1}{2}(y^{(1)}(7) + y^{(1)}(8)) & 1 \end{bmatrix}, Y = \begin{bmatrix} y^{(0)}(2) \\ y^{(0)}(3) \\ \vdots \\ y^{(0)}(8) \end{bmatrix} \tag{5}$$

Calculate \hat{u} :

$$\hat{u} = (a, b)^T = (B^T B)^{-1} B^T Y = \begin{pmatrix} -0.0133 \\ 198.4947 \end{pmatrix} \tag{6}$$

Then, it has $a = -0.123959, b = 17961.66$

Establish models:

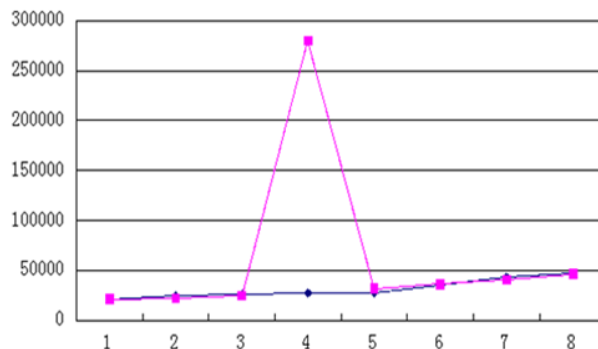


Fig. 2. Actual results with predicted results comparison chart

$$\frac{dy^{(1)}}{dt} - 0.123959y^{(1)} = 17961.66 \tag{7}$$

It solves

$$y^{(1)}(k+1) = (y^{(0)}(1) - \frac{b}{a})e^{-ak} + \frac{b}{a} = -144900 + 166159e^{0.123959k} \tag{8}$$

Solve generating sequence value $\hat{y}^{(1)}(k+1)$ and model restoring value $\hat{y}^{(0)}(k+1)$:

Let $k = 1, 2, 3, 4, 5, 6, 7, 8$, by formula (8), it can calculate and get $\hat{y}^{(1)}$, from which it takes

$$\hat{y}^{(1)}(1) = \hat{y}^{(0)}(1) = y^{(0)}(1) = 250.39 \tag{9}$$

According to $\hat{y}^{(0)}(k) = \hat{y}^{(1)}(k) - \hat{y}^{(0)}(k-1)$, it takes $k = 2, 3, 4, \dots, 8$, and it can get $\hat{y}^{(0)} = (\hat{y}^{(0)}(1), \hat{y}^{(0)}(2), \dots, \hat{y}^{(0)}(8)) = (2125921928248222809831806360034075446133)$.

Most of points have little difference from original points except for extremely specific points. In order to clearly express, comparison has been made between testing and actual results, and Fig. 2 has been drawn.

From Fig. 2, it is clear that most of results are similar except for larger gaps existing in prediction results in 2005.

CONCLUSION

In the background of “Internet plus” era, a new sports information communication way is constructed to implement more rapidly, convenient, correct and widely information communication. This offers new directions for China’s sports development that effective facilitates China’s sports undertakings faster and all-around development.

Firstly, the definition of “Internet plus” is stated from the proposition of the concept to its included

significances as well as important application thereof. Combining with internet characteristics, it suggests internet plus education, internet plus medical treatment, internet plus traffic, internet plus three rural (agriculture, peasant and rural area), internet plus industry and other industrial structures, forms the new state of “internet plus” covering all industries, and implements great transformation and reformation in industrial organizations.

Secondly, two kinds of new sports communication ways are proposed in the background of “Internet plus” by combining with internet communication

characteristics with sports communication traditional characteristics and rules, which is “sports micro-communication” way on the basis of micro-blog, micro-letter, Sohu and other micro-culture, and sports events video software platform enlightened by DiDi taxi hailing, Fast taxi hailing such software, in pursuit of finally rapidly development of sports communication. The proposition of the two sports communication ways avoids the weakness of traditional sports communication ways and bring their advantages into play, fulfilling most rapidly, convenient, correct, and widely sports communication.

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