

Research on the Professionalization of E-Sports in China under the Age Restriction

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Abstract:

The current hot development of China's e-sports industry has led to an increasingly worsening of underage gaming addiction. Recently, the National Press and Publication Administration issued the *Notice on Further Strict Management to Effectively Prevent Minors from Being Addicted to Online Games* for restricting the training and competition of underage e-sports professionals and the game length of underage players, which to some extent conflicts with the professionalization of e-sports in China. This paper aims to study the professionalization of e-sports in China under the age restriction, and analyze whether the underage competition regulations on e-sports have an impact on players' participation through SPSS. Take one phone game as an example, the participation ban on the underage does not generate much restrictions on players though it does affect some e-sports geniuses' career path. However, the negative impact of e-sports on young people and the low cultural literacy of e-sports players is widespread in China. This paper tries to seek a healthy path for the professionalization of e-sports in China under age restrictions to minimize the negative effects brought by e-sports, explore how to enhance the influence of e-sports and promote the development of e-sports industry.

Keywords: E-sports, Underage, Professionalization, Age of athletes, E-sports events.

I. INTRODUCTION

In recent years, though China's control over e-sports has become increasingly strict year by year, it does not stop the rapid development of e-sports. To prevent teenagers from becoming addicted to e-sports, the National Press and Publication Administration issued the *Notice on Further Strict Management to Effectively Prevent Minors from Being Addicted to Online Games* on August 30, 2021. The Notice strictly limits the game time for minors, and requires that all the online game enterprises can only provide online game services to minors for 1 hour from 20:00 to 21:00 daily on Fridays, Saturdays, Sundays and legal holidays and that all the online game enterprises should strictly implement the requirement of real-name registration and login of online game user accounts, not providing game services in any form to users without real-name registration and login. The notice will come into effect on September 1, 2021.

The *Notice on Further Strict Management to Effectively Prevent Minors from Being Addicted to Online Games* not only puts restriction to normal players but also puts age restriction on the professional gamers

of e-sports. On August 31, 2021, League of Legends tournament operator TJ Sports issued an announcement stating that all of its events were undergoing age-compliant adjustments of the competitors. The PEL Peace Elite League issued an announcement that the event on 2021S3 season was to be delayed for the competitor's review. Also, on September 1, 2021, the KPL King Pro League introduced a player age notice requiring KPL and K A players to be 18 years old or beyond.

Although the country's recently issued policy has restrictions on e-sports, in November 5, 2021, League of Legends, Honor of Kings, Game for Peace and other eight e-sports projects selected into the 2022 Hangzhou Asian Games, which can be the first time for e-sports as an official competition into the international comprehensive games.

E-sports, on the one hand, gets more recognition from international sports events, but on the other hand puts strict restrictions to players and even professional players. It seems that it is hard for e-sports to integrate into the mainstream of sports events. Compared to the Chinese diving prodigy Quan Hongchan, who won the gold medal at the age of 14 in the Tokyo Olympics in 2021, Chinese e-sports players, even with their amazing talent and superb condition, seems impossible to participate in high-level professional competitions before the age of 18.

In summary, the professionalization of e-sports in China is in conflict with the age restriction. This paper discusses the related problems emerged in the professionalization of e-sports under the age restriction, and seeks the future career path of e-sports professionalization in China.

II. HISTORY OF THE RISE OF E-SPORTS IN CHINA

On November 18, 2003, the General Administration of Sport officially approved e-sports as the 99th official sport competition item (it was re-approved as the 78th official sport item in 2008) [1]. The body defines e-sports as "a human-to-human rivalry sport played under unified competition rules using high-tech hardware and software equipment as sports equipment" [2]. In October 2017, the International Olympic Committee officially announced that e-sports is considered a sport activity.

In 2014, in the DOTA2 International Invitational Tournament in Seattle, the Chinese team NEWBEE defeated VG, also a Chinese team, 3:1 and won a prize of 5 million dollars, making e-sports widely spread in China. Since then, the concept that playing e-sports is equal to "playing games" has been broken and e-sports began to be regarded as a career. In recent years, as League of Legends becomes more and more popular, each time when a Chinese team gets a global championship in the LPL is a carnival for Chinese e-sports fans.

III. CURRENT DOMESTIC FACTORS FOR E-SPORTS AGE RESTRICTION

In the past decade, China's information industry and communication infrastructure have promoted the rapid development of e-sports, and the 5G has also provided technical support for the emerging phone

game e-sports. With the support of science and technology, the scale of e-sports enthusiasts and industry has been expanding. During the booming development of e-sports in China, some problems have emerged, especially the problem of teenagers being addicted to games under the popularity of the Internet. Therefore, it is necessary and urgent to implement age restrictions on e-sports.

3.1 E-Sports Has Not Yet Formed a Standardized System

With the growing influence of e-sports in China and the world, it has been recognized by the International Olympic Committee and selected as an official event in the 2022 Asian Games. However, e-sports are not fully integrated into the sports system at present, leading to the potential disorderly development without the guidance of the sports microsystem [3]. The athlete registration system, coach training system and referee auditing system of competitive sports in China are not implemented in e-sports, and the professionalization and standardization of e-sports are low and disorderly. Therefore, restricting the age of e-sports players and reviewing the qualifications of e-sports-related practitioners are important measures to regulate the e-sports system in China.

3.2 China's E-Sports Tournament Products Lack Influence

Chinese manufacturers, oriented by economic benefits, are keen on the agency operation of e-sports products with low technical threshold, short payback period and low investment cost. Therefore, they are less active in the face of e-sports products with large investment cost, long payback period and high technical difficulty. [4] In the current world's hottest LPL and other large e-sports events, e-sports products are developed by foreign game developers while domestic manufacturers like Tencent and NetEase are mainly engaged in its domestic operation work. Since the game developers enjoy ownership of game property rights, China's e-sports events are limited to foreign countries for a long time, lacking the competitiveness of their own research and development products. Restricting the age of e-sports players and regulating domestic e-sports events serve as a guarantee for China to research and develop e-sports events and introduce these events to the international.

3.3 Excessive Negative Effects of E-Sports in People's Mind

According to the statistics of the *National Study Report on Internet Usage of Minors in 2020*, the number of minor Internet users in China reached 183 million in 2020, and the Internet penetration rate was 94.9%. The scale of minor Internet users has grown and the trend of underage is obvious: more than one-third of elementary school students have started to use the Internet before school age. E-sports are one of the causes of most minors' Internet addiction and overconsumption. With the Internet as a carrier, it can be easy to cause Internet addiction and psychological dependence, which affects the psychological development of adolescents leading to functional disorders and reduces the psychological health of members of society [5]. E-sports bring too much negative effects to individuals and society so that when mentioning e-sports people first think of its negative effects and it is hard for people to change this idea. Schools and parents reject e-sports psychologically, making it difficult to select and train professional

players for e-sports. By restricting the age of young people engaged in e-sports in China and letting e-sports players start from themselves to promote the positive effects of e-sports, the establishment of the wrong values can be effectively avoided for young people and people's bias on e-sports can be changed which provides a good environment for e-sports players selection and development.

3.4 Low Overall Cultural Literacy of E-Sports Industry

Due to the special nature of e-sports, the career of e-sports players is very short. According to the statistics of Korea E-Sports Association, the most suitable age for playing e-sports is from 16 to 25 years old [6]. The players' mental development is not mature, and they cannot receive higher level of education because of training and competition. Also, the clubs only pay attention to the improvement of competition results while neglect the cultural literacy of the players. [7] The retired e-sports players will choose to continue to work in e-sports, such as joining the e-sports club's operation and management or participating in player training, which leads to a vicious circle in which the cultural literacy of e-sports-related practitioners always at a low level. Putting age restrictions to e-sports players can, to a certain extent, ensure the overall education level of the e-sports industry so as to promote its healthy development.

IV. CURRENT SITUATION OF CHINA'S E-SPORTS PROFESSIONALISM UNDER AGE RESTRICTIONS

As early as 2019, the National Press and Publication Administration has issued the *Notice on Preventing Minors from Being Addicted to Online Games*, which stipulates that online game enterprises should not provide game services for minors in any form from 22:00 daily to 08:00 the next day, and that minors should not play for more than 3 hours per day cumulatively on legal holidays and 1.5 hours per day cumulatively at other times. And it will come into effect on November 1, 2019. However, this regulation does not apply to professional e-sports players. Take a professional player of Honor of Kings as an example, the gaming club has ways to provide minors with "super accounts" and add them into the whitelist. Therefore, those minors can log in during training, without time limit.

Since the *Notice on Further Strict Management to Effectively Prevent Minors from Being Addicted to Online Games* was released in 2021, underage professional players have been banned from competing. China's e-sports professionalism under the age restriction now embraces a new shift. Taking KPL, Honor of Kings Professional League as an example, this paper studies the current status of the professionalization of e-sports in China under the age restriction and tries to check whether the banning of underage professional players limits the operations of e-sports events.

4.1 Age Status of KPL Professional Players

In this paper, 115 e-sports players whose information are available in the starting lineup of 14 teams in the 2020 KPL Honor of Kings Professional League Fall Season Tournament are chosen as respondents. Through the Internet, their basic information can be obtained and their age distribution is analyzed.

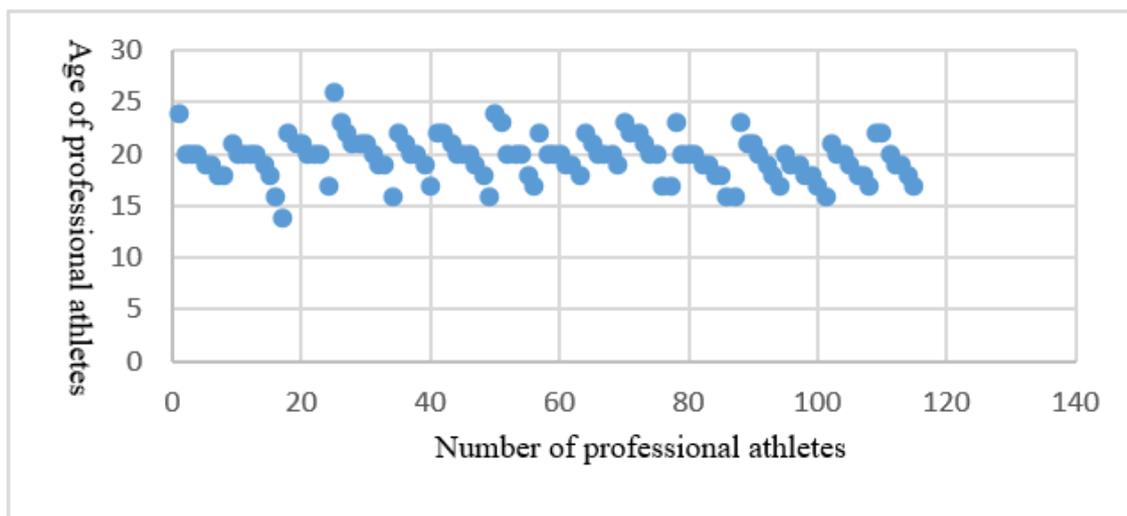


Fig 1: Scatterplot of age distribution of KPL professional players

As shown in Fig 1, in the KPL Honor of Kings Professional League Fall Season Tournament 2020, the age of the starting players of each team fluctuates around 20 years old. 16 of these 115 players are younger than 18 years old, accounting for 13.9%. Since China's e-sports currently establishes a threshold of 18 years old, it is hypothesized whether there would be a statistically significant difference between the e-sports professional player age of 18 years old and the average age of the 115 e-sports professional players investigated in this study. SPSS software is used to do a one-sample t-test analysis with the age of the surveyed e-sports players as the test variable and the age limit of 18 years old as the test value.

TABLE I. One-sample T-statistics results

One-sample statistics				
	Number of cases	Average	Standard deviation	Standard error average
Age	115	19.66	1.973	.184

As shown in TABLE I, the average age of professional players in the Honor of Kings Professional League Fall Season Tournament 2020 is 19.66 years old, which is 1.66 higher than the limited age.

As shown in TABLE II, the significance p-value is less than 0.05, so the qualifying age 18 is statistically significant with the average age of the professional players surveyed, which means that the qualifying age is significantly lower than the actual average age, and the difference is 1.66 years, and the difference of the true mean value has a 95% possibility of falling between 19.66+1.30 and 19.66+2.03.

TABLE II. One Sample T Test Results

One-sample test						
Test Value=18						
	t	Degree of freedom	Significance (two-tailed)	Mean difference	Difference 95% Confidence Interval	
					Lower limit	Upper limit
Age	9.027	114	.000	1.661	1.30	2.03

From the analysis of the age data of China's e-sports players, it can be seen that the age of China's e-sports players is generally low at present, and many professional players engage in e-sports at their earlier age. Considering the hazards of e-sports to human body and the physical and psychological development of the minor group, starting a career too early may overdraw the energy of minors and bring adverse effects on growth as well as their career. From the test results, the threshold of 18 years old does not cause significant impact on the players' participation. But for a few of them, the age restriction makes them unable to participate in the competitions and becomes a stumbling block on their career path.

The *Notice on Further Strict Management to Effectively Prevent Minors from Being Addicted to Online Games* is not without a scientific basis. Based on the premise of not interfering with the normal operation of e-sports events, it is issued after taking many factors into consideration such as the investigation of e-sports professionals and the protection of minors from the negative effects of e-sports.

4.2 The Effect of Age Restriction on the Professionalization of E-Sports

Negative effects:

On the one hand, many clubs and unions have stopped recruiting professional e-sports players and anchors under the age of 18. Among these people some have taken e-sports as their work and even some underage has become the main force in their team as professional players. Losing the opportunity to participate in the competition, they cannot maintain their high level of competitive state. Whether they can maintain their competitive state till they become adults or have a chance to participate in the high-level events again hinders the professionalization of e-sports players. On the other hand, some underage e-sports players may use other means, such as not using their real information or stealing other people's information to avoid age restrictions and break the rules. These kind of behavior like using improper means to extend game time may cause underage e-sports players to follow suit, making the new rules virtually useless.

Positive effects:

Firstly, limiting the age of professional e-sports players is a reflection of the e-sports order regulation. Also, reviewing the mechanism on e-sports practitioners is helpful to promote the professionalization of e-sports in China. Secondly, age restriction helps the growth and education of underage professional players, avoiding premature overdraft due to incomplete physical development, and ensuring time to receive education, solving the problem of low education level of our e-sports professional players. Finally,

the age restriction can bring positive social influence to the professionalization of e-sports. E-sports professionals can set an example for the youth who are addicted to the game by reducing their game time so as to give a proper name to the professionalization of e-sports.

V. DRAWING ON FOREIGN SPORTS PROFESSIONALIZATION EXPERIENCE

On the one hand, China's sports professionalization starts late compared to developed countries and its development is not yet mature. The literacy cultivation to youth professional athletes still needs to be improved; on the other hand, e-sports, as a new sports in recent years, has not yet formed a standardized system in the selection of athletes, training, management and e-sports event operations and other aspects. Therefore, China needs to learn from the management model and successful experience of other countries so as to provide better career planning for underage professional athletes and promote rapid development of e-sports in China.

5.1 Drawing on the Experience of Youth Sports Professionalization in the UK

Youth sports exercise and competitive sports talent training in the UK are closely integrated, and the contradiction between learning and training is seldom happened [8]. The UK will select talented students in different sports to train them as athletes, and treat youth athletes and ordinary students in primary and secondary education without any difference. When athletes students have conflicts between training and competition and study, schools will give athletes students to make up lessons in time or extend students' graduation time. The athletes students must take the national unified examination to get the diploma, and the youth athletes and ordinary students share same cultural teaching standards. The cultural standards will not be lowered because of their sports performance. In terms of athlete welfare, the British government, schools and various social organizations will set up various forms of bursaries to prevent athletes from dropping out of school due to financial problems and to ensure that athletes complete their education. Therefore, in the UK, professional athletes will also have a high level of cultural literacy, which is something to learn from the professionalization of e-sports in China.

5.2 Drawing on the Korean E-Sports Professionalization Experience

The professionalization of e-sports in Korea is more mature, and the selection of professional players is more standardized and scientific [9]. Korean e-sports talent selection is more similar to NBA draft. College students can show their abilities through the draft competition, and students with outstanding abilities will be selected by e-sports clubs and signed as professional e-sports players. E-sports clubs will provide good facilities and professional guidance to ensure the training and improvement of e-sports players. In terms of e-sports events, Korea founded the World Cyber Games in 2000, which has had a significant impact in the world of e-sports, and has been sponsored by Samsung and Microsoft since 2006. New events will be added to the WCG events, and Korean e-sports programs will follow the changes in the WCG events to meet the needs of the world's e-sports development. The success of South Korea in e-sports selection and tournament holding is worthy of drawing on for the professionalization of e-sports in China.

VI. SUMMARY AND PROSPECT OF THE PROFESSIONALIZATION OF E-SPORTS IN CHINA

The state's restriction on the length of underage e-sports seems to limit the development of e-sports professionalism, but in fact, it is advancing e-sports professionalism to develop in a more standard way and promoting the development of e-sports industry. Restricting minor e-sports players and the length of their game-time is an important means to prevent the minors from addicting. It is also a way to regulate China's e-sports professionalism. The government, e-sports companies and individuals should respond positively to this policy to promote the development of e-sports in China and to the world.

6.1 Expand the Influence of E-Sports Events and Regulate Underage Viewing Behavior

The development of China's e-sports industry has been hot in recent years. The overall market of China's e-sports exceeded RMB 100 billion in 2019, of which the e-sports copyright is the focus of the development of the e-sports industry. The copyright of the League of Legends World Championship in China was auctioned at a price of RMB 800 million for 3 years. At the same time, the e-sports event viewing experience during the epidemic is less affected compared to other non-e-sports sports. E-sport In China, KPL, Honor of Kings professional league, started in 2016 and began to hold world-class competition in 2019. The standardization of tournament system and related people is of great importance for China to move toward the international arena.

In terms of e-sports events, China should continue to control the age restriction of e-sports professionals, and also appropriately set provisions for e-sports audience age. For e-sports viewers under the age of eighteen, the current policy only restricts their game time. Some underage viewers may spend more time in e-sports viewing. The emergence of this phenomenon makes the newly introduced rules do not effectively limit the game time of minors, but let the e-sports events have a negative impact, which is not conducive to the promotion of China's e-sports events. Therefore, the age threshold to limit the audience of e-sports events should be implemented together with the restriction of game time to regulate our e-sports events.

6.2 Enhance Government Supervision Ability and Improve Rules and Regulations

The development of e-sports needs the support from the government and relevant departments. In China, although e-sports have been included in the category of competitive sports, it has not been treated like other competitive sports. The government should strengthen the management and increase the publicity of e-sports.

China's e-sports enterprises are mostly private enterprises, and the government's lack of supervision has led to e-sports clubs recruiting underage players. To make profits, some business operators even tend to ignore relevant laws and regulations. The government should strictly enforce the age restriction policy and increase the management of e-sports-related enterprises. At the same time, it should implement relatively mature competitive sports system, control athlete registration system, coach training system and referee

review system to ensure the healthy growth of underage e-sports players.

In e-sports publicity, exchanges and cooperation between e-sports and sports media should be strengthened. The State Administration of Radio, Film and Television and other relevant departments should set up additional e-sports channels and promote e-sports events to join the CCTV-5 event broadcast, and establish a positive image of youth e-sports players. More efforts need to be made to spread positive energy to the minors, popularize e-sports-related knowledge, correct the wrong ideas of underage e-sports players, and enhance the e-sports social recognition.

6.3 E-sports Enterprises and Individuals Consciously Create a Good E-Sports Environment

Firstly, e-sports enterprises should abide by the relevant national rules and regulations and strictly manage the training and competition time of underage e-sports players. Secondly, they should pay attention to the education of underage e-sports players, and improve the cultural literacy of the players while training and competing. Finally, they should introduce scientific operation and management personnel and standardize the internal employment system to ensure that underage e-sports players receive scientific training and management.

For individual e-sports players, underage e-sports players should, on the one hand, abide by the relevant regulations, balance their training and study time, and maintain their competitive status while consciously studying cultural knowledge to improve their cultural literacy. On the other hand, they should have a sense of social responsibility, set an example of not being addicted to games, and spread the positive influence of e-sports.

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