

Research on the current status and strategies of online marathons in our country

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Abstract: This study employs the literature review method and logical analysis to investigate online marathons in our country. It points out that online marathons in our country have developed rapidly and their scale has continued to expand. However, there are still issues such as athlete cheating, an incomplete logistics support system, a strong commercial atmosphere surrounding the events, and a lack of systematic constraints on athletes' blind participation. It is believed that a sound anti-cheating monitoring system should be established to ensure the fairness and justice of the events; an online medical system should be established to monitor the physical conditions of runners in a timely manner; laws and regulations should be improved to clarify legal responsibilities; and a competition evaluation and management system should be established and perfected. The aim is to provide reference and assistance for the healthy development of this emerging type of event in our country.

Keywords: Online Marathon, Internet of Things, Evaluation and Management System, Online Medical System, Anti-Cheating Monitoring System

1. Introduction

In 2014, the State Council issued the "Opinions on Accelerating the Development of the Sports Industry and Promoting Sports Consumption" (Document No.46 [2014]), which proposed that national fitness be elevated to a national strategy. The fundamental goal is to enhance the physical fitness and health standards of the citizens. Therefore, strengthening the development of public sports has become a new task for the new era. Marathons, as a sport that combines popularity and spectatorship, have seen a surge in city marathon events in recent years, attracting a large number of running enthusiasts.

2. The current status of online marathons in our country

Online marathons are an innovative product of the Internet of Things (IoT) era. Their emergence has transcended the limitations of time and geography, allowing runners who cannot be physically present to participate in marathons through sports APP platforms. By running online, they can join the event with those at the venue, and upon completing a full or half marathon on the day of the race from any location as required by the event, they can receive officially licensed finisher medals, event prizes, or electronic completion certificates. Currently, the integration with IoT mobile sports APPs has become the mainstream form of sports activities in the new era. With the increasing emphasis on health by users, more and more people are joining the national running community through APP software. Inter-city marathons have been highly popular among runners, but due to registration restrictions, many are still unable to secure a chance to participate, giving rise to online marathons that enable both online and offline running.

The "National Fitness Program Outline" indicates that the state places great importance on the mental, cultural, and physical fitness endeavors of its people. Against the backdrop of a nationwide sports movement, fitness tracking APPs, being the most widely used sports social APPs in the country, have actively responded to national policy calls and effectively promoted the development of the national fitness cause, providing the best internet sports experience system for users who love sports. In particular, running software has leveraged the advantages of the internet's digital and intelligent technology to initiate inter-city

online marathons in the internet era, making sports more accessible, popular, and vibrant. According to the "China Mobile Internet Development Report (2014)," the number of mobile netizens reached 500 million, accounting for more than 80% of the total number of netizens, with mobile phones maintaining their position as the primary device for accessing the internet [1]. The ubiquity of mobile phones has provided the necessary conditions for the birth of sports APPs and the conduct of online marathons. These APPs can help users record their exercise trajectories, provide energy consumption data, and offer personalized fitness methods, making them indispensable applications on many people's phones [2]. Consequently, it has become a common phenomenon for the public to engage in sports through mobile sports APPs.

Among sports APP products, Yue Pao Quan (Happy Running Circle) has taken the lead in developing and researching online marathon events, attracting a large number of runners with its comprehensive event services and excellent user experience. This has also encouraged many professional running APPs to enter the online marathon market [3]. For users, online marathons not only compensate for their regret of not being able to participate in offline marathons but also fulfill their spiritual need for enjoyable running events.

Considering the scale of development of online marathons, since the launch of the first Xiamen Online Marathon in 2015, a wave of online marathon events in cities such as Chongqing, Yangzhou, and Dalian have been organized, with the competition scale continuously expanding. The event arrangements mainly include full marathons, half marathons, 10K, 5K, and some small-scale parent-child marathons. Relevant data statistics indicate that by the end of 2015, Yue Pao Quan (a running community app) had hosted 9 online marathons, with a total number of participants exceeding 1.6 million, and the average completion rate for each city's online marathon was approximately 89.68% [4]. By April 2016, Yue Pao Quan had successfully organized 15 online marathons, with a total registration of 2.97 million people and a total number of finishers reaching 2.06 million [5-6]. The statistical data from each online marathon (with Table 1 providing a scale statistics chart for several typical city online marathons) shows that since their inception, online marathons have been highly popular, with both the scale of the events and the number of participants on an upward trend, and the increase has been significant.

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Taking the Chongqing Online Marathon as an example, the number of registrations for the online marathon increased by nearly 310,000 in just one year from 2015 to 2016. Additionally, online marathon events have partners such as the Gu Dong and Migu Shan pao apps, which means the scale of the events and the number of times they are held each year can vary. According to Sina Sports, more than 60 marathon events are certified by the athletics federation each year, and most official events have already reached cooperation agreements with running apps. Each online marathon event attracts the participation of over 50,000 people, a number that is still growing exponentially [4]. In "Meeting the 'Opportunity' Again," Lan Lan introduces that the Gu Dong APP, in partnership with Adidas, organized online versions of the Beijing International Marathon, Shanghai International Marathon, and Guangzhou International Marathon. These three online marathons attracted over 100,000 participants in total. Additionally, the Du Jiang Yan Marathon, Qinhuangdao Marathon, and Lanzhou Marathon each had nearly 140,000 participants [7]. From this, it is clear that online marathons in our country have a broad and promising future for development.

Table 1: Overview of the Scale of City Online Marathons

Event Name	Number of Participants	Full Marathon/Half Marathon Finishers
Xiamen Online Marathon	45000 (both online and offline)	5,000+
Chongqing Online Marathon (2015)	10000+	10000+
Lanzhou Online Marathon	63375	3285/43848
Dunhuang Online Marathon	100000	80000
Shanghai Online Marathon	130000	90000+
Chongqing Online Marathon (2016)	324775	268513

3. Issues in the development of online marathons in our country

Although online marathons in our country have been successfully held for several editions, they are still a developing competitive event, and the imperfect competition system is the biggest regret of this project. As the scale of development continues to expand, the inherent issues of online marathons in our country are beginning to surface, mainly including the following aspects:

3.1. Athlete cheating is a common occurrence

With the surge in popularity of online marathons, negative comments and voices of doubt have begun to emerge and grow increasingly strong: "Are online marathons a reconstruction or a form of destruction?" In the public's perception, traditional marathons are characterized by strict regulations and systems, with tight control over the competition venue, route, and participants, all conducted with the principles of fairness, justice, openness, and transparency. The introduction of online marathons has disrupted this traditional format, allowing participants to complete the race from any location. While this approach saves runners the time and financial costs associated with traveling to the event location, it has also led to the inevitable issue of performance fraud, which has become a common occurrence. The spirit of sports, encapsulated by the motto "Faster, Higher, Stronger," has been openly mocked.

A search on Baidu for the term "online marathon" reveals that cheating in online marathons has become a hot topic. Methods such as hiring proxies to run or swapping chips are frequently observed, severely impacting the fairness and integrity of the events. The management systems and measures against cheating in online marathons are not yet fully developed, and relevant standards have not been clearly defined. As a result, the issue of athlete cheating is expected to persist for some time.

3.2. Security and medical support systems are still inadequate

It is well known that hosting a marathon event requires the mobilization of many local resources, such as supplies, security, traffic management, medical services, and urban administration, involving coordination with more than twenty government departments. Online marathons, however, require runners to register through mobile sports apps and participate locally after registration is approved. While this process saves many resources, it does not ensure the smooth conduct of the event or the safety of the participants' lives.

For instance, the routes of offline marathons are strictly controlled by security and traffic management to ensure the event's smooth progress, and there are supply points along the course to provide runners with water. In contrast, online marathons have routes chosen by the participants, with no assessment of the route's accessibility, and runners must prepare their own energy supplies. Additionally, offline marathons have doctor runners on the course and are equipped with AEDs (Automated External Defibrillators) to maximize the safety of the participants. However, online marathons lack medical personnel and equipment, which poses a significant risk if an athlete has an accident (given that the golden time for rescue is only two minutes).

Determining who bears the responsibility for accidents in online marathons is a thorny issue—whether the medical expenses are to be borne by the runner or the event organizer—is not clearly stated in the rules of online marathons. In the event of a serious incident, this could lead to disputes.

3.3. The event has a strong commercial flavor

As the number of events increases and the scale grows larger, the original intent of hosting online marathons has deviated to some extent. Many runners have expressed that online marathons have become a tool for organizers to make a profit. The unique brand identity of online marathons has been replaced by consumer products. According to runners' feedback, an online marathon commemorative medal costs 19.8 yuan, and to engrave it for commemoration, one must purchase an additional package—spending 63 yuan for a headband, 88 yuan for an arm sleeve, and 157 yuan for a visor cap. If one chooses to buy the New Year package, it would cost 252+260 yuan for the New Year arm sleeves, New Year sports cap, New Year running gloves, and New Year long-sleeved T-shirt. This practice of indirectly selling consumer products has not only adversely affected the cultural theme of the events but has also been detrimental to the establishment of a good reputation for this emerging mass event, impacting the healthy development of online marathons.

3.4. There is a lack of systematic restrictions on athletes participating blindly in the events

The rapid development of online marathons is due to a large participant base. So, what motivates people to pursue "online marathons" so fervently? It is undeniable that there are factors such as a love for sports and the desire to exercise, but there is also the influence of personal vanity. The author's investigation has found that as runners participate more frequently, the phenomenon of entering the race solely to obtain commemorative medals is becoming apparent. Marathons are endurance sports that require a high level of cardiovascular and other physical functions, yet most runners lack understanding and monitoring of their own physical capabilities. Many have never engaged in long-distance endurance running and join online marathons purely for the thrill and to satisfy their vanity. Driven by such motives, they are prone to overexertion, which can lead to unnecessary accidents. This also reflects the systemic flaws in the current registration and qualification process for participants in online marathons in our country. If this issue is not addressed, it will undoubtedly affect the development of the sport.

4. Development strategies for online marathons in our country

4.1. Establish an anti-cheating system to ensure fair competition

In response to unethical sports behaviors such as proxy running, event organizers should require participants to submit personal information before the race for strict review. Runners should also be required to upload videos of their participation at irregular intervals during the race, and after the race, their race routes and step counts should be strictly audited. It is suggested to use apps like Baidu Maps to plan the runners' routes, or to require runners to upload their planned routes before the race for supervision. In summary, to maximize the elimination of cheating, options such as increasing investment to add monitoring equipment, arranging dedicated personnel for finish line photography, further promoting event transparency, recruiting volunteers, inviting media to supervise the entire event, or establishing stricter punitive measures to deter cheating can all be considered. The most critical aspect is to fully and effectively implement these measures.

4.2. Establish a robust online medical system to monitor runners' health in real-time

Currently, fitness apps are rapidly becoming popular, but most of them cannot scientifically monitor the physical functions and health conditions of participants. Therefore, it is necessary to establish an online medical system to ensure the healthy development of online marathons. Online health questionnaires can be created to collect and analyze the health data of participants, and to provide a preliminary diagnosis on whether they are suitable to compete within a certain period. Since human body functions vary at different times, the online medical system should record users' basic information and physical function data, and remind users to update their data and fill out professional medical questionnaires at specific times. This allows the online medical system to record and analyze the physical conditions of participants in real-time, and to alert users to stop exercising and seek medical attention promptly if any abnormalities are detected.

4.3. Strengthen laws and regulations, clarify legal responsibilities

In a society governed by the rule of law, there must be laws to follow and laws must be obeyed. Online marathons in our country are an emerging product, and the competition system is not yet perfect, failing to clarify the functions and responsibilities of various departments and participants, which leads to some issues during the competition being difficult to resolve due to lack of legal support. Therefore, relevant legislative departments should establish a comprehensive legal system to address the practical problems and risks associated with online marathon events, clarifying the responsibilities and obligations of event organizers, insurance companies, and participants. This ensures that there are laws to rely on when problems arise, providing legal protection for the smooth conduct and healthy development of online marathon competitions.

4.4. Establish and improve the competition evaluation management system

Benefits and risks coexist. How to minimize event risks and maximize event benefits is a problem that online marathons must face and resolve. Currently, online marathons in China are still in the development process and urgently need to establish a comprehensive event evaluation system. Organizing units should actively respond to national sports policies and work with relevant sports departments to establish a pre-event assessment management system that includes event planning, competition management, risk management (athlete risks, organizational management risks, commercial risks, etc.), human resource management, financial resource management, information resource management (event hosting information, athlete registration information, etc.), and comprehensive event marketing (advertising, public relations, etc.). Additionally, a post-event assessment management system that includes event evaluation and performance management should be established. Valuable experiences in the development process should be continued and promoted, while problems and deficiencies need to be addressed in future events through further system improvements, allowing online marathons to continuously progress and become increasingly refined.

5. Conclusion

Online marathons are an emerging product that effectively combines competitive sports with mass sports in the era of the Internet of Things, significantly reducing the barrier for the public to participate in marathons and offering a promising future. However, as of now, online marathons in China are still in their early stages and exploratory phases, with immature and incomplete competitive systems and evaluation management systems. There are no effective prevention and handling measures for cheating behavior and safety issues. It is necessary for event organizers and relevant sports units to work closely together, strengthen system construction, and truly make online marathons a "green and healthy" mass project.

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