Building a National Fitness Grid Governance System using the Cloud Platform

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Abstract: *As one of the most successful countries in the fight against the COVID-19 epidemic in the world, China attaches great importance to the health of the people. This paper uses the methods of literature research, survey interviews and observations to sort out the work related to the grid governance of national fitness, and finds that the contradiction between the growing sports population and the sports public services provided by the government is prominent, and the sports demand is not fully and balanced development. Structurally, relying on geographic entity data technology to achieve unit grid governance, using geocoding technology to achieve urban component governance; "3 + N" grid governance supervision axis and other construction systems based on cloud platforms to build "multi-grid and multi-grid collaborative integration" construction system, in order to realize the sharing of sports resources, the supply of sports public services and the sinking of sports management.*

Keywords: national fitness, cloud platform, grid governance

1. Introduction

The COVID-19 epidemic has ravaged the world, seriously affecting the normal life and economic order of society. As one of the most successful countries in the world in fighting the epidemic, China has always adhered to the policy of "dynamic clearing". As an important part of the Chinese Dream, the Healthy China strategy is self-evident for the importance of deepening national fitness in the context of normalized epidemic prevention and control. The public of general voice for health needs is high, the contradiction between the growing sports population and the sports public services provided by the government is prominent, and the sports demand has not been fully and balanced. Based on the characteristics of the late start but urgent development of China's national fitness service support system, the research hypothesis put forward in this study: during the epidemic, people's home fitness is a new type of spontaneous "grid", and the national fitness grid governance is constructed based on the cloud platform system, and discuss the use of "grid" to manage national fitness under the background of normalization of epidemic prevention and control. This paper will systematically sort out the practical starting point of the grid governance of national fitness, apply grid governance methods to deepen the practice of national fitness, and find the most reasonable and convenient way to help the development of national fitness. Adopt appropriate governance methods in special times to further solve the diversity of sports needs of the general public and the governance problems covered by them, further promote the governance and services of national fitness, and sink professional sports resources, sports public services, and sports management to the grassroots people. Since the current research on the application of grid governance in the field of physical education is relatively rare, it will be a positive reflection and discussion on improving the new pattern of national fitness practice.

2. Related work

2.1 Traceability and cross-border application of grid governance

The word "grid" originated from "power grid" in electric power in 1995, and is an important information network technology. Grid governance is to use the concept of bureaucracy and adopt new governance techniques. It originally means: "Relying on a unified governance and digital platform, it is divided into unit grids according to certain standards. By strengthening the inspection of the components and events of the unit grid, enabling supervision and disposal separate from each other.

"After the Third Plenary Session of the Eighteenth Central Committee, the country began to implement community grid governance and refine the grid model. The Fourth Plenary Session of the Nineteenth Central Committee once again advocated the implementation of grid management and services shared social governance pattern[1]. Although governance and management are different in one word, they embody systematic governance, legal governance, source governance, and comprehensive policy implementation. This provides a fundamental basis for solidly carrying out grid governance and improving grass-roots social governance capabilities. Grid governance can achieve precise governance to a large extent, put people, things, and things into practice, find the source by following the vine, and take the shortest path to solve the problem.

Existing related grid governance is mostly used in community, rural, business governance and other fields, combining spatial grid with computer network. Realize the governance of urban or rural grassroots social organization fields and divide them into spatial grids. Through detailed management, organized responsibilities, and integration of resources, the governance of business circles by field and function can be realized. To a certain extent, grid governance makes up for the shortcomings of the country in modern economic development and social management, and promotes the development of public interests and public affairs, it is a new governance model. The theory of seamless government points out that grid governance is a refined and personalized public service model oriented by public demand, and its essence is to emphasize the precise supply of public services[2]. Using the concept of bureaucracy to explain is to solve the problems of "who governs", "how to govern" and "what levels to govern", so as to ensure the self-interest of the people, improve information construction, optimize management services, and realize the implementation of people's livelihood projects.

2.2 Grid governance of national fitness

In this study, the grid governance of national fitness refers to relying on an unified grid governance and digital platform, emphasizing the democratic consultation between multiple subjects, dividing national fitness into unit grids according to certain standards, and deepening the "opening" in the sports field managed clothing". Its essence is to move the focus of social governance and services to the grass-roots level, to realize the sharing of sports resources, the supply of sports public services and the "multi-network synergy integration" that sinks to the grass-roots level. In order to realize the grid-based governance of national fitness under the background of normalization of epidemic prevention and control, first of all, at the macro level, the past management mode of passively responding to national fitness must be transformed into actively discovering and solving problems; secondly, at the micro level, through the cloud platform realizes the digitalization of national fitness services and management methods, and makes the management objects, processes and evaluations precise and efficient. Third, in the context of national fitness, a scientific service and management mechanism in a closed environment must be implemented. Under the background of the new era of reform and innovation of the sports governance system, it will be a positive and bold exploration to strengthen the formation and governance of grids based on the cloud platform, improve the ability and level of national fitness management, and deepen the grid governance and services of national fitness.

3. Building a multi-grid and multi-grid collaborative integration path for national fitness grid governance using the cloud platform

The new grid governance model creatively combines management and services, the grid focuses on a fixed point, traces the public representation behind it with clues, and the chain of links is the existence itself from isolation to communication. Through the two channels of Questionnaire Star and Tencent Documents, the "National Fitness Basic Situation Survey and Governance Issues" questionnaire was distributed to gain an in-depth understanding of public opinion [3]. Microsoft Excel and SPSS23.0 for Windows statistical software were used to process and analyze the recovered effective questionnaires. Extract relevant valuable information and operation methods, and demonstrate the framework setting and latitude and longitude composition of grid management.
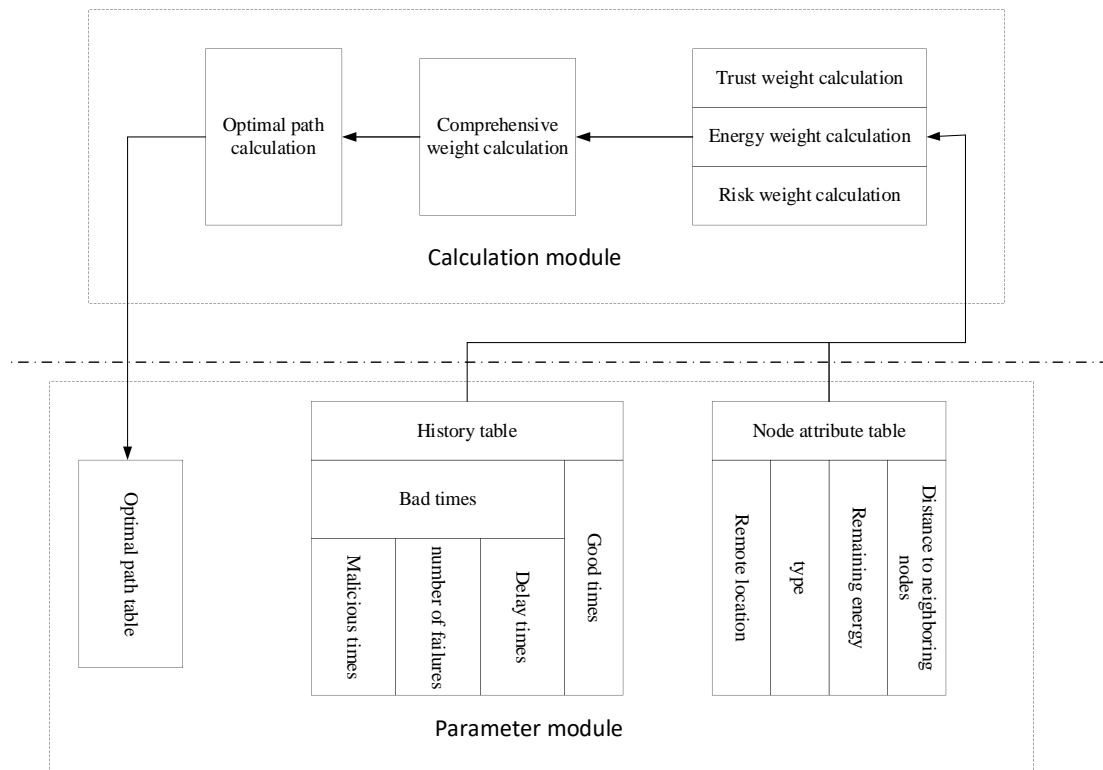
Figure 1. Multi-network and multi-grid collaborative integration path of national fitness grid governance

3.1 The grid governance structure of national fitness

The grid-based governance of the normalized national fitness for epidemic prevention and control is different from the traditional model. It is a new management model based on the digital technology of the cloud platform. The purpose of grid governance should be to promote the realization of public rights and interests in sports, and the government, society, and the public should cooperate to build a governance model for national fitness.

3.1.1 Relying on geographic entity data technology to realize cell grid governance

Relying on the geographic entity data technology, the content extraction and hierarchical refinement of the basic geographic information data of national fitness is carried out, and the materialized data model is adopted, and the geographic elements are used as spatial data to express and classify the basic unit of organization. Each area is divided into different sports governance units. Each unit exists independently and is in a state of interconnection. The boundaries can be irregular, so as to achieve unified management of the area. Realize the integration and coordination of data, sports information, and sports service resources corresponding to national fitness, achieve classification and combination of information content, and achieve incremental updates based on relevant elements. To achieve the hierarchical and comprehensive management of national fitness and sports, management from top to bottom, and feedback from bottom to top [4]. It can greatly alleviate the situation of insufficient national supporting regulations and policies for epidemic prevention in national fitness. It is an important measure to further implement a service-oriented government by refining the original emphasis on "management" and at the same time paying attention to "service" and other issues (Figure 2).
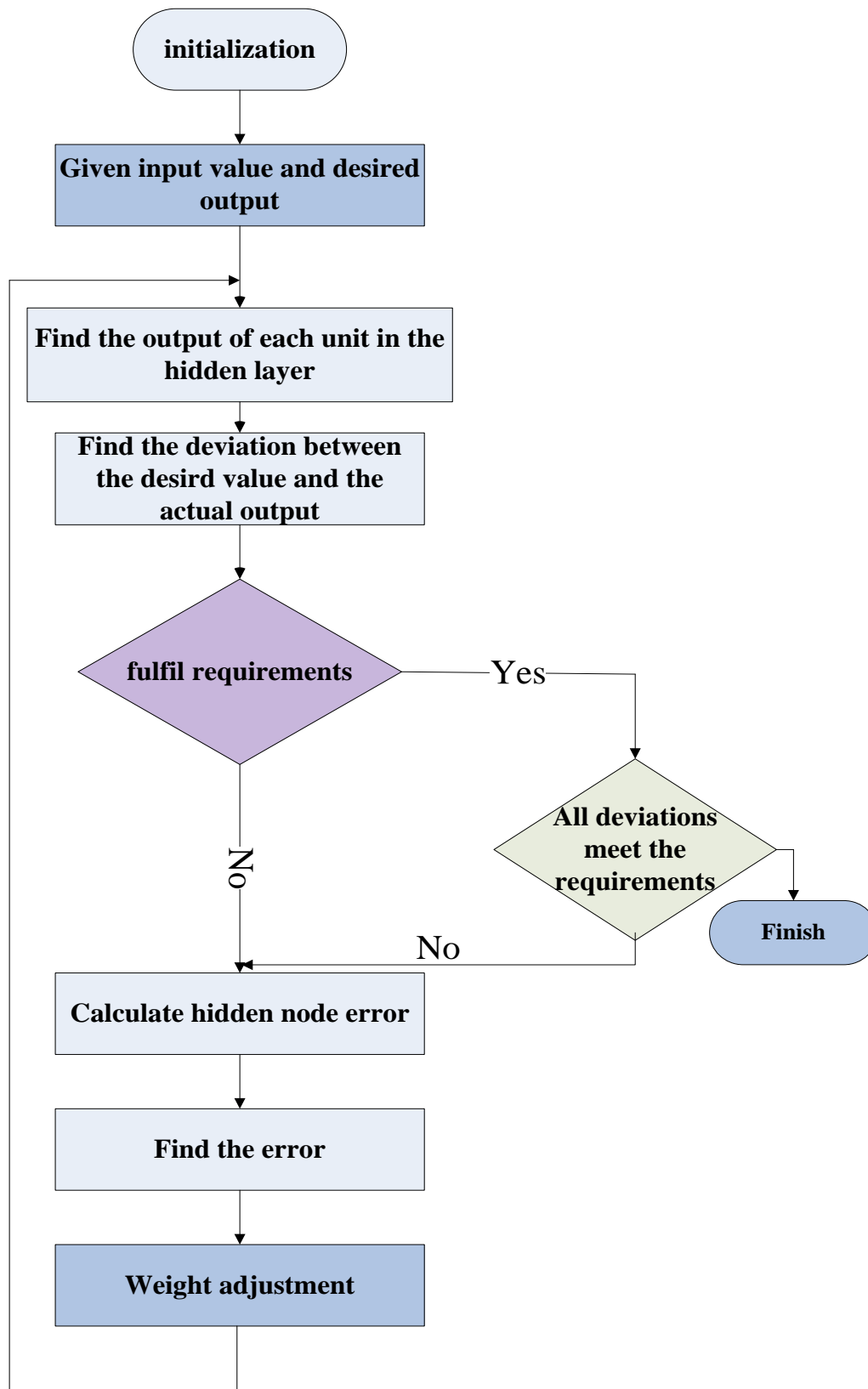
Figure 2.Cell grid governance of the grid governance structure for national fitness

3.1.2 Using geocoding technology to realize urban component governance

Taking the materialized urban supervision object as a part of the city, using geocoding technology, positioning the urban parts according to the geographic coordinate mode, and dividing them into unit grids to realize regional management [5]. The management of this mode is based on the information

platform, and the classification management method is adopted in the urban management law. Based on the cloud platform, according to different sports function requirements, people who participate in national fitness are coded, reclassified, and a corresponding sports resource database is created. The meaning of coding is to materialize it, give it a new ID code, have its accurate location, belong to the relevant sports management service department, and realize the management based on the information platform. During the epidemic prevention and control period, the government adopted measures such as "one province to protect one city" and "grassroots grid management" to effectively implement various epidemic prevention and anti-epidemic policies. The use of geocoding technology to realize the application of urban component management technology enables major organizations to form the greatest degree of synergy, which can realize "higher sports colleges (or qualified sports associations) to protect one sports project", and further alleviate the diversification of national fitness content the quality is uneven and so on (Figure 3).
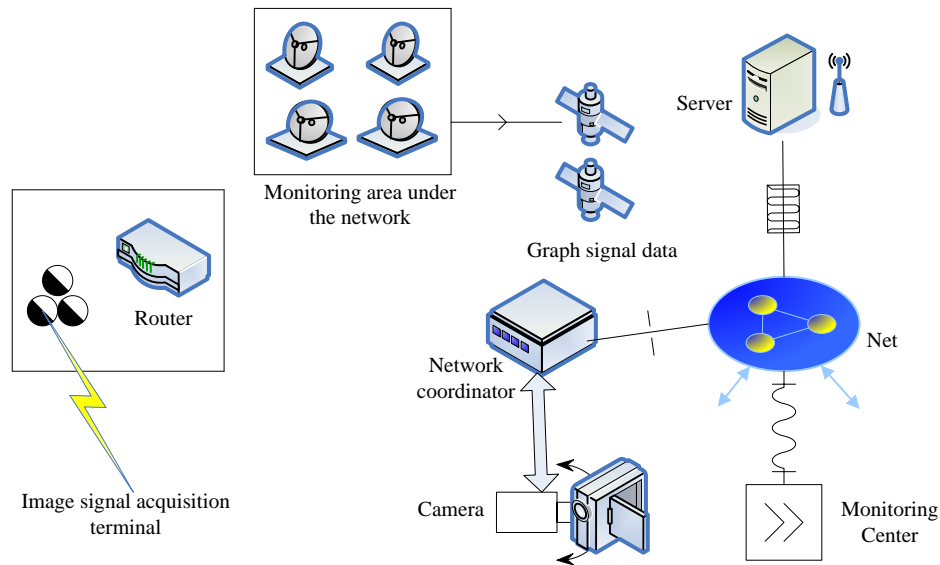

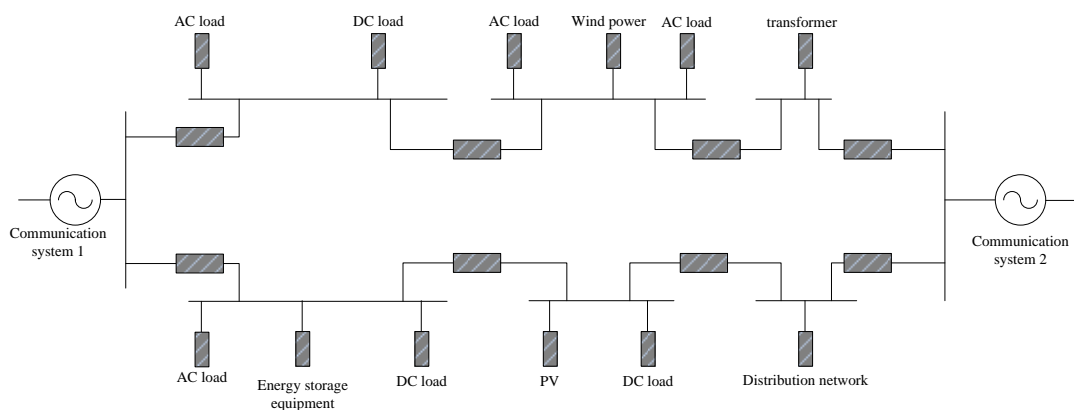*Figure 3.Urban component governance of the grid governance structure for national fitness*

Figure 4. Supervision axis builds a"3 + N"grid governance model for national fitness

3.1.3 Supervision axis to build a national fitness "3 + N" grid governance model

The function of the supervision axis system is to discover and solve the problems of national fitness in the normalization of epidemic prevention and control. The public participating in national fitness, the precise service-oriented government and the diversified society will participate and cooperate to build a "3 + N" grid for national fitness governance goals play the role of the supervisory department to evaluate each link, and take corresponding measures to solve abnormal emergencies in a timely manner, actively play a guiding role, regulate supply and resource support mechanisms, optimize allocation and resource sharing, etc., to achieve maximum decentralization of professional sports resources, to sink the sports public service and sports public management to the grassroots level. The feedback and

supervision of the supervision department realize the co-construction, co-governance and sharing of sports information and resources, dynamic tracking and refined management, and form a complete loop and closed loop in parallel with the operation axis (Figure 4).

3.2 Realize multi-network collaborative integration

The grid-based governance of national fitness under the background of normalization of epidemic prevention and control based on cloud platform construction is the most core link in the entire operation mechanism, and is the main link connecting "multi-network" and "multi-grid" points, lines and planes. The two axes of the supervision axis work together in coordination. The practice path of national fitness grid governance covers multiple factors, such as demand, implementation, coordination, resource sharing, supervision, feedback, evaluation and other mechanisms. Its core link is to collect the demand and demands of the public, and hand it over to the grid governance agency to coordinate and integrate the operation axis, realize the sharing of sports resources, and make the supply of sports public services and sports public management sink. On this basis, a national fitness practice system of "multi-network and multi-grid collaborative integration" is derived that conforms to the normalization of epidemic prevention and control.

4. Conclusion

The development of national fitness reflects the civilization of the country and society. Under the background of normalization of epidemic prevention and control, the construction of a national fitness grid governance system based on the cloud platform reflects the existentialism of a community with a shared future for mankind. It is an active exploration to improve the new governance model of national fitness by striving to realize the perfect linkage mechanism of "multi-network and multi-grid collaborative integration" of co-construction, co-governance and sharing, maximizing the use of sports resources, and sinking sports public services and management to the grassroots level.

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