

Research Article

Intelligent Integration Algorithm of National Traditional Sports Culture Resources Based on Big Data

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There is an information island between traditional national sports culture resources and realize the efficient real-time interconnection of resources. Therefore, this study proposed an intelligent integration algorithm of traditional national sports culture resources using big data that halts the said information island. Firstly, the complete data set is obtained by determining the time attenuation period of the weighted sample, and the mining parameters are based on the real value to realize the in-depth mining of the resource wisdom of traditional ethnic sports culture. Then, the query set of big data is constructed based on the results of weakly associated data mining, and the query of weakly associated data is completed through data repair. Finally, XML technology is used to run the schema to build a resource integration model. The experimental results show that compared with the traditional integration algorithm, the proposed algorithm can better solve the problem of information island among traditional ethnic sports culture resources at all levels and effectively maintain the stability of the storage environment of traditional ethnic sports culture resources while realizing the real-time interconnection of resources.

1. Introduction

The culture of each nation is formed and developed to adapt to the characteristics of its own nation, with independent national character and social consciousness. In its self-replicating historical origin from generation to generation, it continuously accepts foreign influence and changes, gradually forming and enriching the cultural accumulation of its own nation [1].

China has thousands of years of continuous Chinese traditional culture; traditional national sports culture is a special form of traditional Chinese culture; coupled with a vast land with a large number of ethnic and population, under the influence of traditional Chinese culture, with the passage of time and space changes, ethnic traditional sports have emerged. By 1990, there were 977 traditional ethnic sports. There are a large number of traditional national

sports, which provide a resource basis for the development of traditional national sports culture.

The resources of traditional national sports culture include not only the traditional national sports as the mainstream culture of the Chinese nation but also the nonmainstream Han nationality and ethnic minority sports activities. It appears with the development of modern life under the specific regional environment, regional conditions, and regional cultural background. It can take a certain material entity as the carrier but also can be some pure human spiritual culture things, tangible carrier, and intangible spiritual culture content depend on each other, mutual penetration, with obvious characteristics of the times, nationality, and art. Therefore, in the resource connotation of traditional ethnic sports culture, there are not only traditional sports items, sports equipment, equipment, clothing, murals, and unearthed cultural relics in the

material level but also folk culture, organizational culture, and values and rules in traditional ethnic sports activities in the spiritual level [2].

However, in the storage platform of national traditional sports culture resources, there are obvious information islands due to the existence of data coverage, which affects the real-time interconnection between resources. The traditional cloud computing resource integration strategy uses the directory system to integrate traditional national sports culture resources and then uses the portal platform to integrate these information parameters into a new data flow transmission format [3]. However, this method has limited ability to solve the problem of information island, and it is difficult to establish a new real-time resource interconnection relationship.

Therefore, a resource integration algorithm based on online migration is designed in reference [4]. This algorithm takes into account the characteristics of cloud computing; comprehensively considers memory, CPU, and I/O; and proposes an online migration strategy based on the ant colony algorithm. On the basis of analyzing the principle of ant colony algorithm and the integration of cloud platform virtualization resources, the profit incentive is defined as the heuristic information of ant colony algorithm, and then the time difference and migration cost of different virtual machines on the virtual cluster are adjusted to optimize the performance of the virtual cluster and achieve efficient integration of resources. In reference [5], to design a kind of resource integration algorithm based on improved ORM, the algorithm is divided into three parts: first of all, to access the database using the improved ORM technology, extract data resources, and then to preprocess data resources, including cleaning, dimensionality of loading, and finally using KNN algorithm to deal with good classified data resources integration. In reference [6], a data resource integration algorithm based on integrated learning is designed. The algorithm realizes control, regulation, and application by using the administrator operation management operation layer. In the big data analysis layer, the data prediction results fused with multidimensional parameter information were obtained by the parameter single-step prediction method of ELM prediction model, and the high precision strong learning model was obtained by combining ELM prediction model with bagging integrated learning method so as to realize the effective interpretation of differential data resources. The data is integrated by the integration manager and the integration running engine in the integration layer, and the integrated data is fed back to the big data resource layer through the regulation layer, which is stored in the temporary database and metadata database in the layer, and the data in these databases provide data scheduling services for the database.

Based on the above traditional research, in order to break the information island between the data of traditional ethnic sports culture resources at all levels and realize the real-time interconnection of resources, this study proposes an intelligent integration algorithm of traditional ethnic sports culture resources based on big data. Moreover, the association definitions and characteristics of national traditional sports culture resources are described, such as historicity, nationality, blend,

and regional. In addition, the resource semantic similarity measurement and integration of ethnic traditional sports culture resources based on XML are explained.

The organization of the rest of the paper is as follows. Section 2 excavates and deals with the resources of national traditional sports culture. Based on big data, Section 3 enquires weakly associated data of ethnic traditional sports culture resources. In Section 4, intelligent integration of national traditional sports culture resources is presented. The experimental studies are carried out in Section 5. Finally, in Section 6, the current article is concluded.

2. Deeply Excavate and Deal with the Resources of National Traditional Sports Culture

The in-depth mining processing of ethnic traditional sports culture resources includes three execution steps: calculating the time attenuation period of weighted samples, data set expression, and parameter setting of real value mining. The specific operation methods are as follows.

2.1. The Time Decay Period of the Weighted Sample. The weighted sample time decay period is a relatively broad physical coefficient index. In the storage space of national traditional sports culture resources, due to the influence of an in-depth mining framework system, the time decay cycle of weighted samples often has a direct impact on the real-time storage behavior of data parameter indexes [7].

For the resources of traditional ethnic sports culture, the larger the actual coverage area of an in-depth mining framework system is, the stronger the application storage capacity of data information parameters will be [8]. To put it simply, the length value of the time decay period of the weighted sample is not completely fixed, and the order of magnitude level of the physical index will also increase with the increase of the amount of traditional sports culture resources of the nationalities to be stored. However, in order not to affect the final integration and sharing results of information parameters, the weighted sample time decay cycle index also contains certain constrained abilities, that is, in a fixed numerical space, the weighted sample time decay cycle index can affect the integration processing results of national traditional sports culture resources [9].

Assuming that s and e represent the sample weight coefficient of the traditional national sports culture resources of two different groups and n represents the sample collection coefficient of the traditional national sports culture resources information, the above physical quantities can be combined together, and the expression of the decay period of the weighted sample time can be defined as follows:

$$J = \sum_{s=1}^n \sum_{e=1}^n \frac{|c_s - c_e|^2}{n^2 \cdot |\Delta t|}, \quad (1)$$

where c_s represents the information characteristic value of traditional ethnic sports culture resources when the sample coefficient is s , c_e represents the information characteristic

value of traditional ethnic sports culture resources when the sample coefficient is e , and $|\Delta t|$ represents the unit integration time of traditional ethnic sports culture resources information.

2.2. Data Set Representation. In the process of implementing the information parameter integration and sharing instruction, the data set can include all the undefined national traditional sports culture resource information and change the actual transmission rate of the stored information parameters according to the specific numerical level of the time decay period of the weighted sample.

Data set should be a relatively broad definition condition for information parameters [10]. In order to meet the practical application requirements of an in-depth mining framework more effectively, the remaining data indicators should be integrated into a new transmission form while the parameters of traditional national sports culture resource information should be transferred in a timely manner. On the one hand, the integration and sharing of resource information of the host can be satisfied. On the other hand, it can temporarily alleviate the poor timeliness of information parameter storage caused by the time decay period of weighted samples.

Hypothesis ∂ represents the information-sharing coefficient of ethnic traditional sports culture resources, and simultaneous formula (1) can define the data set expression of ethnic traditional sports culture resources as follows:

$$A = \frac{J}{\varepsilon_1 + \varepsilon_2} \sum_{\partial \rightarrow 0} x_{\partial}^2, \quad (2)$$

where ε_1 and ε_2 , respectively, represent the definition conditions of two different ethnic traditional sports culture resource information parameters and x_{∂} represents the established basis vector of digital resource information integration.

2.3. Set Real Value Mining Parameters. Real value mining parameters setting is one of the key processing steps in deep mining and can be in a known weighted sample attenuation cycle time and the data set expression conditions, on the basis of the national traditional sports culture resources information integration ability in preliminary constraints so that the host of the data parameter query ability get improved [11]. At the same time, the storage platform of national traditional sports culture resources is in charge of a large amount of digital resource information, and the final transmission direction of these information files is also different due to the difference of parameter integration and sharing mode. However, in most cases, its transmission behavior is beneficial to the implementation of parametric deep mining instructions.

It is assumed that p_{\min} represents the minimum value of mining depth value of traditional ethnic sports culture resources and p_{\max} represents the maximum value. In general, the greater the physical difference between the two, the more accurate the setting results of real value mining parameters

will be. With the support of the above physical quantities, simultaneous formula (2) can express the setting results of real value mining parameters as follows:

$$L = \frac{f(p_{\max} - p_{\min})}{\lambda A} \cdot \sqrt{k_1^2 + k_2^2}, \quad (3)$$

where f represents the depth mining coefficient, λ represents the characteristic value of digital resource information, and k_1 and k_2 , respectively, represent the mining permission value of resource information of traditional sports culture of different nationalities.

3. Weakly Associated Data Query of Ethnic Traditional Sports Culture Resources Based on Big Data

Weakly associated data query of national traditional sports culture resources based on big data is the basic link of integration processing. With the support of weakly associated data mining and query set construction, the specific operation methods can be carried out as follows.

3.1. Mining Weakly Linked Data. Weakly associated data mining is the basic operation step of integration algorithm implementation [12]. In the face of the huge amount of original data of traditional ethnic sports culture resources, accurate information characteristic dimension conditions can be determined according to the close connection between adjacent data organizations, and the processed traditional ethnic sports culture resource data can be rearranged according to the constraint conditions. To put it simply, weakly linked data mining is an application processing method to break and rearrange information connections.

The weak correlation attribute becomes the only physical condition that affects the data arrangement when the information association ability of all the traditional sports culture data is unchanged. So-called mining is also called the appropriate link; it is existing in large all the multimedia data in the data network, according to certain relevant influence to carry on the corresponding link, to integrate all the physical structure of complete connection, package it, and set up a special independent organization to store this kind of weak correlation data, waiting for the connection of the next execution processing instruction application [13]. Figure 1 reflects the complete processing principle of weakly associated data mining.

3.2. Building a Big Data Query Set. A big data query set is a mining storage space for weakly associated data, with strong physical carrying capacity and no strict limit on the amount of data information contained in it. Although there is no definite limit on the specific number of weakly associated data of ethnic traditional sports culture resources in the collection, under normal circumstances, the collection structure that meets the requirements of compression must contain three basic data types: mining head information, mining entity information, and mining tail information [14].

The so-called mining header information refers to the big data nodes that directly contact the results of weakly associated data mining, often represented as y_a . Mining entity information is an in-depth explanation of weak association rules and an important component condition that cannot be obtained in big data query sets, which is often expressed as y_b . Tail information mining is the main physical basis for the formulation of the compression method. It has no direct correlation with physical conditions such as the total amount of multimedia data and weak correlation coefficient, which is often expressed as y_c . The big data query set can be expressed as follows:

$$Y = \left\{ T | T = \frac{\mu\lambda \cdot |y_b|^e}{y_c - y_a} \right\}, \quad (4)$$

where T represents any weakly associated data of traditional national sports culture resources in the big data query set; μ and λ , respectively, represent two irrelevant intelligent compression index vectors of big data; in certain cases, $\mu = \lambda$ and $\mu \neq \lambda$ are established at the same time; and e represents the power coefficient related to mining entity information.

3.3. Resource Data Repair. Data repair is a precise limitation on the final intelligent integration result based on a big data query set. Compared with weakly associated data mining, when repairing the resource data of traditional ethnic sports culture, the weak part in the big data environment can be directly targeted and promoted by directional integration [15].

In the process of repairing weakly associated data of ethnic traditional sports culture resources, we should first conduct a preliminary search on the query set of big data and screen out the key information components, and then selectively generate one or more alternative data packets for repairing according to the limitations of weak association rules on integration results. It must contain not only all the information structures selected from the collection of big data queries but also the associated form structures with integrated indexing capabilities. Then, all the information structures are arranged according to the weakly associated data mining rules to ensure that there is no obvious data chaos in the subsequent integration process. Finally, the big data media environment is utilized to repair the data structure that has an obvious weak correlation effect so as to improve the storage and transmission capacity of the data structure of national traditional sports culture resources.

Figure 2 shows the complete data repair process of traditional national sports culture resources.

4. Intelligent Integration of National Traditional Sports Culture Resources

In this section, the characteristics, association definitions, of national traditional sports culture resources are described. In addition, the resource semantic similarity measurement and integration of ethnic traditional sports culture resources based on XML are explained.

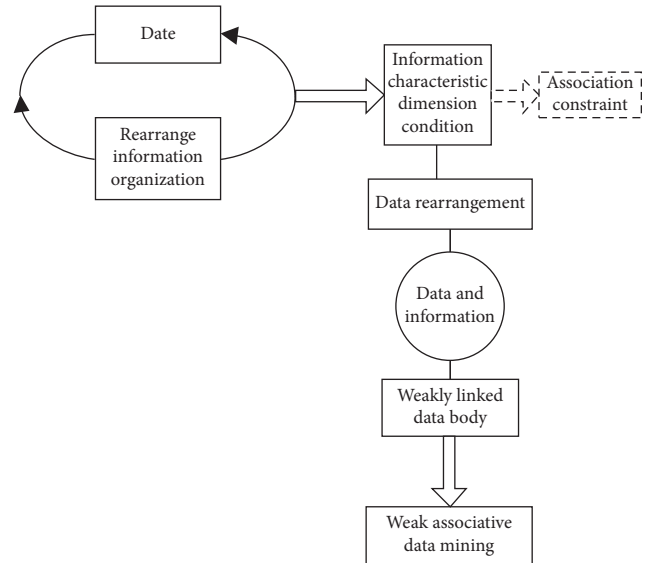


FIGURE 1: Schematic diagram of weak association data mining for ethnic traditional sports culture resources.

4.1. The Characteristics of National Traditional Sports Culture Resources

- (1) **Nationality:** The so-called nationality refers to the characteristics common to the ethnic groups formed in the process of the development of a national sports culture and different from other national sports cultures. The national character of sports culture can be reflected in the material level, behavior system, and spirit level of sports culture. However, the spiritual level of sports culture can reflect the most intrinsic, the most profound, the most essential national character.
- (2) **Historicity:** Historicity refers to the development of a country's national sports culture in a cycle that spans time and space, and the sports culture system records the formation and development process of national traditional sports culture in this historical period and even interprets it, so that people can understand the traditional national sports culture. In the past, it provides a reference for future research on national traditional sports culture.
- (3) **Regional:** A region is a space that has certain limits and is interconnected with each other with similarities and differences. The regionalism of the national traditional sports culture resources in China means that the national traditional sports culture resources are limited by the geographical environment and show different characteristics. As China is a unified multiethnic country, under the premise of unification, there is a certain correlation between the sports culture of various ethnic regions. However, China is a multiethnic country, the sports culture of each ethnic region cannot be completely the same; they show different distinct characteristics.

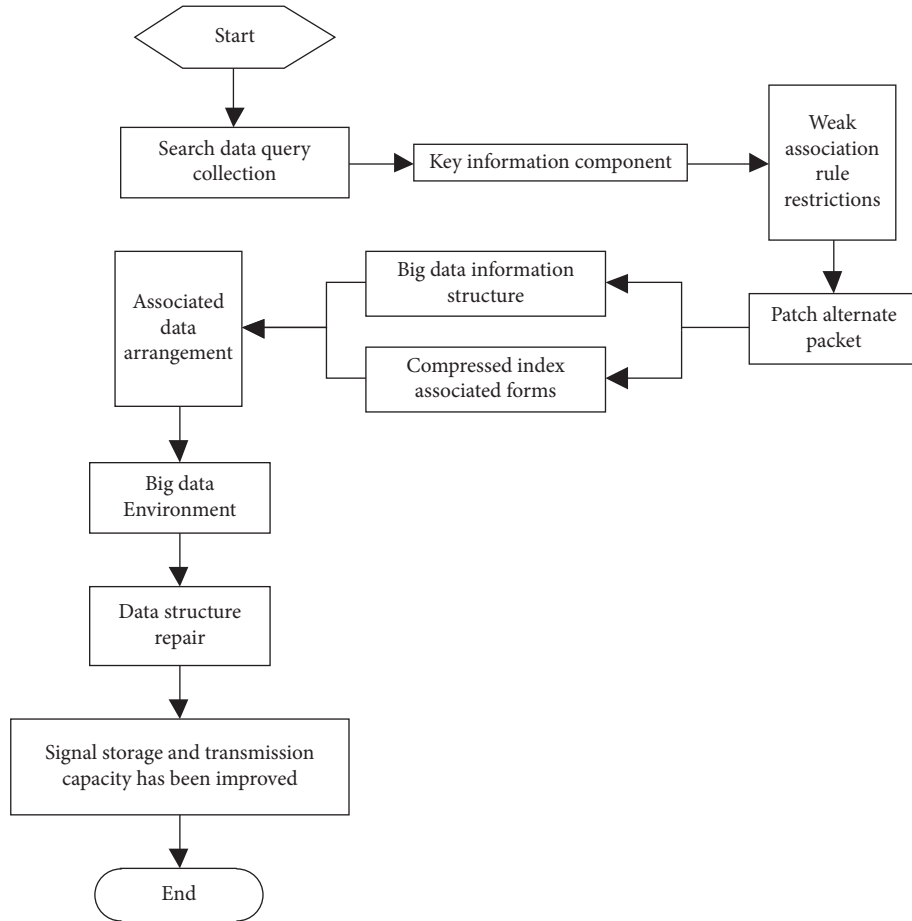


FIGURE 2: Data repair flow chart of national traditional sports culture resources.

(4) Blend: Integration refers to the process of mutual integration of different countries, national ideas, national cultures, and national economies in the current era of globalization. At present, China’s national traditional sports culture is in a diversified economic system. From the cultural level, the national traditional sports culture is in the process of integration, transformation, and development of the global “world culture.”

4.2. Association Definition of National Traditional Sports Culture Resources. For the random ethnic traditional sports culture resource ontology A , B , and C , there is $B \neq A, C \neq A, B \neq C$.

- (1) If the root entity of C is the child root entity of B , then the description B contains C , and the formulation B contains C , then add association contain (C) to the root entity of B , and add association part-of (B) to the root entity of C .
- (2) Add ontology D containing ethnic traditional sports culture resources to make root entities B and C become subroot entities of D , that is, there are associations contain(B) and contain(C) in the root entity of D , so it describes that there are sibling

associations between B and C , and associations brother(C) and brother(B) are introduced into root entities B and C , respectively.

- (3) If there is no brother layer connection between B and C , specify that b and c represent the sources of the root entities of B and C in the source resource set, respectively. If b and c are the sources of the same category of national traditional sports culture resources, then existed with the connection between B and C , within the root entity B and C , respectively, added associated hom o – course (C) and hom o – course (B).
- (4) If there do not have brothers layer connection between B and C , specify that b and c represent the sources of the root entities of B and C in the source resource set, respectively. If b and c is derived from the same category of national traditional sports culture resources, then between B and C will have a same group, within the root entity B and C , respectively, added association hom o – group (C) and hom o – group (B).
- (5) If B and C is the traditional sports cultural resource coefficient of different nationalities in the same category, then there is a direct connection between B and C , adding associations in B and C , respectively,

b – version(C) and b – version(B). It directly represents the conversion of the old version to the new version.

- (6) If B and C have been browsed by the same user, then there is browsing association between B and C . Add association brow(C) and association brow(B) to the root entity of B and C , respectively.
- (7) It is proposed that X is the entity set of linked relations existing in the entities in B and C , and Y is the entity set of linked relations existing in the entities in B and C . If at least one of X and Y is empty, then the

association describing B and C is an infinitesimal quantity exceeding zero.

4.3. Resource Semantic Similarity Measurement. For the random ethnic traditional sports culture resource noun B and C , their semantic similarity is described as $W(B, C)$, which is defined as follows:

Ten meta-resource keywords are collected from traditional ethnic sports culture resources and stored in the attribute set of the real roots X and Y of resource ontology B and C . The similarity of B and C is defined as follows:

$$W(x, y) = \sum_{i=1}^{10} W_i(x, y), \quad (5)$$

$$W_i(x, y) = \frac{|\theta_{i,x} \cap \theta_{i,y}| / \max(|\theta_{i,x} \cap \theta_{i,y}|) + |\theta_{i,x} \cap \theta_{i,y}| / \min(|\theta_{i,x} \cap \theta_{i,y}|)}{(2 * 9)},$$

where $\theta_{i,x}$ is the set of the i -th meta-resource in x and $\theta_{i,x} \cap \theta_{i,y}$ represents the total amount of the same value.

4.4. Integration of Ethnic Traditional Sports Culture Resources Based on XML. Based on the above research, this paper makes use of XML (Extensible Markup Language) technology to complete the integration and processing of traditional national sports culture resources.

Unlike traditional structured data, XML data is self-describing and has no fixed form. In practical use, XML is usually used as the framework of data exchange, and the associated database is used as the storage form. In this way, resources in the database can be converted into XML format during use, and files in XML format can also be returned to the associated database [16].

As an open standard, XML has a standard associated with it, as shown in Figure 3.

The essence of national traditional sports culture resource integration is the high combination of digital resources, which is built in XML. Therefore, through such high integration, it cannot only provide an efficient and fast way of resource acquisition and resource retrieval but also lay a foundation for the construction and sharing of national traditional sports culture resources.

Since the traditional ethnic sports culture resources are divided from the server in the network environment during the XML resource integration model, the XML resource integration model will connect the traditional ethnic sports culture resources with the disk array through the FC (fiber channel) switch. When the resource data integration task appears, The XML resource consolidation model is used to transfer between related servers or disk arrays in the background, and the server can access any node in XML, which greatly improves the availability of the resource

consolidation model. The logical topology architecture of a typical XML resource consolidation model is shown in Figure 4.

In Figure 4, the XML resource consolidation model needs to be built from storage media, data servers, disk arrays, fiber channel switches, and tape libraries. A typical integrated media disk array is composed in the form of an all-optical fiber structure rather than a mixture of other devices.

In the XML resource consolidation model, communication between nodes can run simultaneously without interference from each other. Therefore, the bandwidth of national traditional sports culture resources in the switch can reach the sum of the data flow on the port, realizing the long-distance and high-efficiency transmission of optical fiber transmission and realizing the instant storage and retrieval of resource data between different workstations.

Generally speaking, there is a disk array in the information center of ethnic traditional sports and cultural resources, and a converter needs to be introduced when accessing the all-fiber XML resource integration model. According to the previous experiments, it can be proved that the characteristics of fiber high-speed integrated transmission will be lost through the converter, and the converter also has the matching problem with the XML disk array. Therefore, the all-fiber architecture can give full play to the characteristics of the XML resource integration model and Yoshiaki, while the original disk array is backed up by the data backup module in the XML resource integration model. At the same time, as the XML resource integration model has formed a storage module, its scalability can support the distributed expansion of storage space, that is, with the continuous improvement of electronic resources, it is integrated into the disk array so as to obtain the optimization of resource construction and investment.

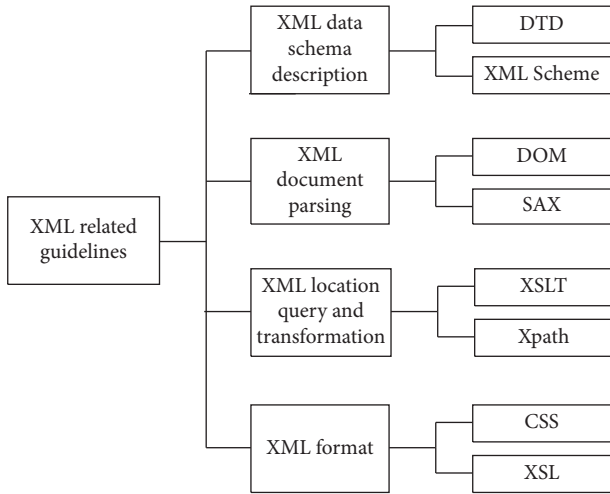


FIGURE 3: XML association standards.

Due to a large amount of data of national traditional sports culture resources, in order to ensure the operational efficiency of the integration model, this paper integrates multiobjective integration scheduling algorithm, which can select suitable nodes by priority to meet the optimization of operation efficiency. The following parameters are considered:

- (1) Completion time: This paper conducts an evaluation based on previous running time, number of requests, and estimated running time. Then the request S_i evaluation implementation time t_c is as follows:

$$t_c = Q_s = \sum_{k=1}^{QL_d} t_{kc}, \tag{6}$$

$$t_c = \frac{t_{ini} + \sum_{n=1}^{Num} t_n}{Num + 1}, \quad Num \neq 0,$$

where QL_d represents the time required in node d , t_c represents the calculation time of S_i , and S_i represents the calculation time of t_{ini} , which is the mean of the calculation time before this request. Num is the number of requests, and t_n is the n -th operation time of S_i . The more S_i is implemented, the closer the value of t_c will be to the actual completion time of the integration. The smaller the value of t_c , the faster the integration can be achieved.

- (2) Load balancing: If a load of a node in the XML ethnic traditional sports culture resource integration model exceeds the maximum it can bear, then the performance of the whole model will be greatly reduced. Therefore, it is necessary to schedule the integration to nodes with the light load as far as possible to balance the load. Therefore, a critical value of the integration rejection is proposed for all nodes in this paper. When the node equipment load exceeds the critical value, the following integration requests will be rejected automatically, and the integration

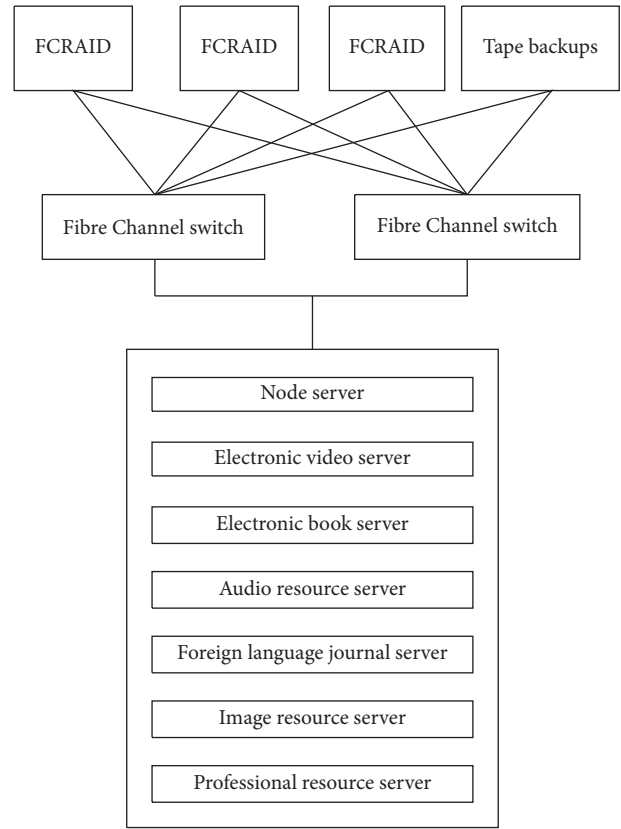


FIGURE 4: Logical topology of XML resource consolidation model.

requests will be uploaded to facilitate the collection of nodes that do not reach the critical value. The critical value operation equation is as follows:

$$TLV = \{TLV_{cpu}, TLV_{mem}, TLV_{stor}, TLV_{net}\}. \tag{7}$$

In the proposed XML integration model, the conversion point of two kinds of fiber converter is proposed between two different nodes. For distributed teaching resources, the fiber converter will transmit from the responding node to the converter in another node. By virtue of this integration method, once the spatial capacity is found in a node, the allocation of national traditional sports culture resources can be integrated together and stored in the node with available capacity.

To sum up, the integration process of national traditional sports culture resources is shown in Figure 5.

5. Experiment and Analysis

The following experiments are designed to verify the effectiveness of the intelligent integration algorithm of national traditional sports culture resources based on big data. The relative resource scheduling model of national traditional sports culture is established.

In order to form an experimental comparison, the processing algorithms of the experimental group and the control group are connected to the resource storage host. The experimental host is equipped with the proposed

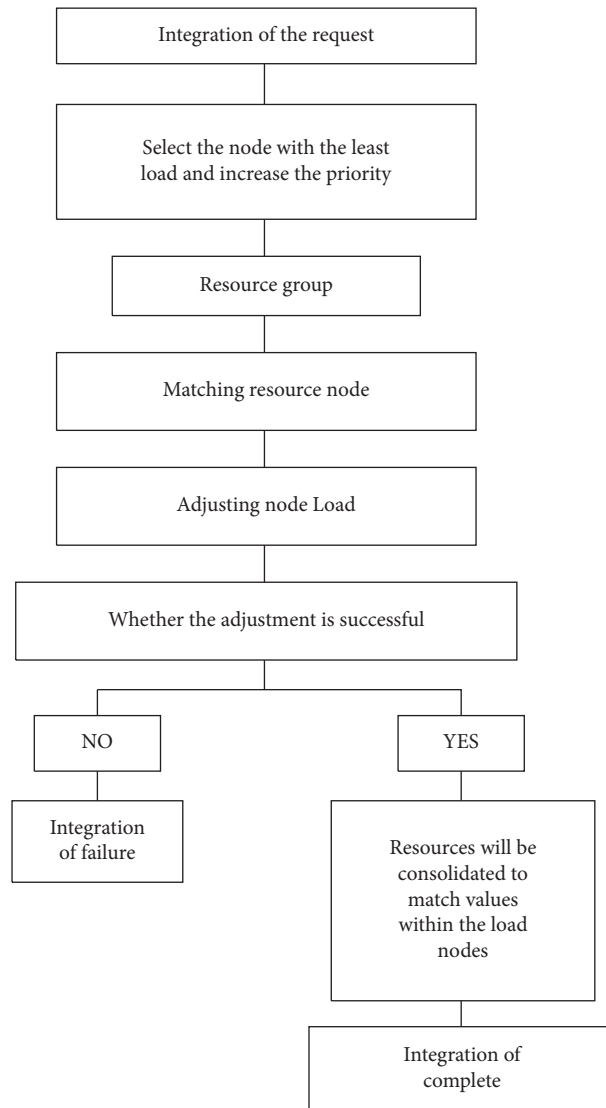


FIGURE 5: Schematic diagram of integration process of national traditional sports culture resources.

algorithm, while the control host is equipped with the traditional online migration-based resource integration algorithm and the improved ORM-based resource integration algorithm.

Information silos are a serious resource lock-in problem. In general, the more obvious information silos are, the more resources are locked up. It is assumed that indicator A can reflect the occurrence probability of the information island phenomenon of national traditional sports culture resources. The higher the value level of this indicator is, the greater the occurrence probability of the information island phenomenon will be.

Table 1 records the specific changes of index values of the proposed algorithm, the resource integration algorithm based on online migration, and the resource integration algorithm based on improved ORM.

By analyzing Table 1, it can be seen that after the application of the proposed algorithm, the value of index A has always maintained a continuous upward trend, and in the

whole experiment, the value of the early period increased significantly more than that of the late period. However, after the application of the two traditional algorithms, the value of index A keeps the trend of increasing first, then stabilizing, and finally decreasing, and there is no significant difference between the increasing range in the early stage and the decreasing range in the late stage. From the perspective of limit value, the maximum value of index A in the experimental group decreased by 26.18% and 34.08%, respectively, compared with that in the control group.

To sum up, the application of the big data-based intelligent integration algorithm of traditional ethnic sports culture resources designed in this study significantly improves the numerical level of index A , solves the information island problem of traditional ethnic sports culture resources to a certain extent, and realizes the stable transmission and sharing of data information parameters.

It is assumed that index B can reflect the real-time interconnection and communication ability of national

TABLE 1: Comparison of A index values of different algorithms.

Experimental time/min		Index $A/\%$
	(a) Algorithm of this paper	
10		10.07
20		10.14
30		10.18
40		10.22
50		10.25
60		10.26
70		10.39
80		10.30
90		10.31
100		10.33
	(b) Resource integration algorithm based on online migration	
10		36.46
20		36.48
30		36.50
40		36.53
50		36.57
60		36.57
70		36.56
80		36.55
90		36.51
100		36.51
	(c) Resource integration algorithm based on improved ORM	
10		44.36
20		44.38
30		44.40
40		44.43
50		44.47
60		44.46
70		44.46
80		44.46
90		44.31
100		44.21

TABLE 2: Comparison of B index values of different algorithms.

Experimental time/min		Index $B/\%$
	(a) Algorithm of this paper	
10		83.15
20		83.15
30		83.15
40		83.15
50		83.14
60		83.15
70		83.16
80		83.14
90		83.15
100		83.16
	(b) Resource integration algorithm based on online migration	
10		62.70
20		62.70
30		62.68
40		62.67
50		62.66
60		62.65
70		62.64
80		62.65
90		62.64
100		62.66

TABLE 2: Continued.

Experimental time/min		Index B /%
	(c) Resource integration algorithm based on improved ORM	
10		60.66
20		60.66
30		60.47
40		60.46
50		60.44
60		60.43
70		60.43
80		60.42
90		60.41
100		60.41

traditional sports culture resource information. In the absence of other external influence conditions, the greater the standard value of B , the stronger the real-time interconnection and interworking ability of traditional national sports culture resources.

Table 2 records the specific changes of index B of the proposed algorithm, the resource integration algorithm based on online migration, and the improved ORM resource integration algorithm.

By analyzing Table 2, it can be seen that the value of index B of the proposed algorithm always maintains an absolutely stable value existence state in the early stage of the experiment, but from the 50 min, the trend of this value gradually tends to be stepped, and the global maximum value reaches 83.16%. The value of index B of the two groups of traditional algorithms gradually showed a changing state after a slight decline, and the global maximum value reached 62.70% and 60.66%, respectively, which decreased by 20.46% and 22.50% compared with the maximum value of the experimental group.

To sum up, after the application of the intelligent integration algorithm of traditional ethnic sports culture resources based on big data designed in this study, index B shows a significantly increased numerical change state, which proves that the proposed algorithm can improve the real-time interconnection and interworking ability of traditional ethnic sports culture resources.

6. Conclusion

In this study, an intelligent integration algorithm of traditional ethnic sports culture resources based on big data is designed. After in-depth mining of traditional ethnic sports culture resources, weakly associated data is queried through data repair, and a resource integration model is constructed by using XML technology operation mode. The algorithm solves the problem of information island among the traditional national sports culture resources at all levels and effectively maintains the stability of the storage environment of traditional national sports culture resources while realizing the real-time interconnection of resources.

Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The author declares that there are no conflicts of interest.

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