

## Retraction

# Retracted: Research on the Construction of Intelligent Media Ideological and Political Learning Platform Based on Artificial Intelligence Technology

### Journal of Mathematics

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

- (1) Discrepancies in scope
- (2) Discrepancies in the description of the research reported
- (3) Discrepancies between the availability of data and the research described
- (4) Inappropriate citations
- (5) Incoherent, meaningless and/or irrelevant content included in the article
- (6) Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

### References

- [1] J. Wang and S. Hu, "Research on the Construction of Intelligent Media Ideological and Political Learning Platform Based on Artificial Intelligence Technology," *Journal of Mathematics*, vol. 2022, Article ID 6511962, 11 pages, 2022.

## Research Article

# Research on the Construction of Intelligent Media Ideological and Political Learning Platform Based on Artificial Intelligence Technology

Jingsheng Wang and Siyuan Hu 

Cangzhou Normal University, Cangzhou, Hebei Province 061001, China

Correspondence should be addressed to Siyuan Hu; [husiyuan@st.btbu.edu.cn](mailto:husiyuan@st.btbu.edu.cn)

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Aiming at the problems of slow teaching resource sharing rate, long platform response time, and low student learning efficiency in traditional ideological and political learning platforms, a research on the construction of intelligent media ideological and political learning platforms based on artificial intelligence technology is proposed. We build an artificial intelligence open source development platform framework based on the cloud platform and use the Ceph method to optimize the storage of artificial intelligence training platform data. Under this framework, we design the business process and business module service architecture of the intelligent media ideological and political learning platform. Based on the  $K$ -means algorithm, the intelligent media ideological and political learning platform resource management module is designed, the teaching resource database is constructed, and the teaching resource sharing model component module is designed to realize the construction of the intelligent media ideological and political learning platform. The experimental results show that the sharing rate of ideological, political, and educational learning resources on the platform is relatively fast. The response time of the platform is 0.08 s when the amount of ideological and political teaching resources is 16000 MB. Students who are interested and very interested in the teaching account for 89% of the total.

## 1. Introduction

The ideological and political discipline is a relatively theoretical subject, and its teaching content and teaching methods have fewer auxiliary tools that can be used for reference. This makes the ideological and political teaching class more boring, and it cannot better attract the majority of students. The main purpose of the ideological and political course is to convey the mainstream ideology of current social development. This is to help students establish a scientific world outlook, values, and outlook on life [1]. Ideological and political disciplines play an important role in cultivating students' dialectical thinking, logical thinking, and so on and in cultivating students' thinking ability. At the same time, it also meets the requirements of enterprises for talents. The biggest feature of the ideological and political course is its inherent moral education, which can prompt students to

successfully complete the transformation of knowledge, affection, faith, intention, and behavior. It has an irreplaceable effect on the development of college students' physical and mental health and plays a decisive role in the entire curriculum system. However, this course has a strong theoretical and slightly less interesting situation. In the current study of ideological and political courses, students' lack of interest in studying ideological and political courses has seriously affected the function of the ideological and political courses. This course involves all aspects of the content, the theoretical system is extensive and complex, college students are very likely to be resistant to studying, students themselves also have some inherent biases and cognitive deviations towards ideological and political courses, and the school's moral education and quality education have not been well received. With the acceleration of people's life rhythm in modern society, how to improve the

efficiency of learning and time utilization has become one of the topics considered in the innovation of current education and teaching methods [2]. Therefore, in order to strengthen college students' interest in learning this course and improve learning efficiency, it is very necessary to effectively adopt teaching methods to cultivate students' interest in ideological and political courses.

Zhang [3] proposed an interactive ideological and political teaching platform based on animation technology. The platform designs different functions for the different needs of teachers and students. Teachers can use the system to maintain the system, enter information, answer questions, and upload course materials; students can use the system to view course schedules and school notices, ask questions, and communicate online with class teachers. The platform can meet the real-time needs of multiple users at the same time and can improve the initiative of students in learning, but there is still room for improvement in learning efficiency. Minmin et al. [4] proposed the design of an auxiliary teaching platform for ideological and political classrooms based on data mining. Using data mining technology and JDT language, an ideological and political classroom teaching auxiliary platform was developed. This platform can provide services such as resource sharing and teaching evaluation for classroom teaching and teaching activities, but the information retrieval time is longer. Based on this, this article proposes an intelligent media ideological and political learning platform based on artificial intelligence technology. In this regard, Section 2 constructs the intelligent media ideological and political learning platform. On the basis of  $K$ -means algorithm, Section 3 of this paper presents the design of resource management module of the intelligent media ideological and political learning platform. Then, the experimental analysis is carried out in Section 4 to verify the fluency and strength of the proposed method. In the end, the paper is concluded in Section 5.

## 2. The Construction of Intelligent Media Ideological and Political Learning Platform

For a long time, the innovation of ideological and political classrooms in colleges and universities has focused on the excavation of the content of ideological and political textbooks and the use of empty theoretical teaching. This not only has great limitations but also is not conducive to the cultivation of students' thinking ability. With the help of existing online teaching methods, it can not only effectively expand the knowledge but also allow students to fully and intensively use ideological and political teaching resources. In order to achieve the above ideological and political teaching goals, a smart media ideological and political learning platform will be constructed.

*2.1. Framework of AI Open Source Development Platform Based on Cloud Platform.* In order to build a smart media ideological and political learning platform, first build an artificial intelligence open source development platform

framework based on the cloud platform to improve the deficiencies in the model training process and improve the development efficiency of the smart media ideological and political learning platform. The framework uses the combination of Docker technology + Kubernetes cluster to build an artificial intelligence open source platform. Using Docker technology, users only need to operate the interface on the page to complete various functions. In cluster deployment, Kubernetes clusters are used for deployment. The Kubernetes cluster is divided into two parts, namely, the master node and the slave node. There are certain differences in the functions of the two. The former mainly completes the management and configuration of the cluster, including the scheduler, API Server, and so on. The calculation process includes service agents, kubelet components, and other basic facilities.

To realize the platform, one is to realize the scheduling of the resource platform, and the other is to realize the optimized storage of data on the artificial intelligence training platform. In traditional scheduling, it is necessary to select an optimal deployment node from the cluster based on the information of resource configuration. Although this scheduling method is relatively simple to implement, it is not highly flexible. It can only complete resource configuration during the first deployment process and cannot be adjusted according to the actual operating state, which will reduce the efficiency of resource utilization, and it is difficult to meet the requirements of actual applications. In addition, this method cannot effectively predict resource usage and ignores the sensitivity of the application to resources, which may cause a certain resource bottleneck on the node. Therefore, an optimization algorithm based on Max Resource Usage Priority is proposed, and a prediction algorithm combining ARIMA and RBF is proposed to better promote the effective scheduling of Kubernetes cluster resources.

*2.1.1. The Working Principle of Kubernetes Scheduler.* In terms of container management, Kubernetes mainly uses the method of constructing pods. In the entire platform, the Kubernetes scheduler plays a key role, which is equivalent to a hub connecting various parts. It can combine the set scheduling algorithm to establish the association between the pod and the specific host node in the cluster and write the associated information in the etcd, so that each part maintains a normal operating state, so it has the function of connecting the previous and the next. The entire scheduling process is actually to deploy specific pod tasks in the host node using the scheduling algorithm and then use kubelet to detect the pod binding events, and after the event list is obtained, the resources are bound and the corresponding ports are opened, thereby completing the start of the container [5]. The detailed flow of this process is shown in Figure 1.

*2.1.2. Max Resource Usage Priority Optimization Algorithm.* The Max Resource Usage Priority algorithm is used to improve the computational efficiency of the artificial

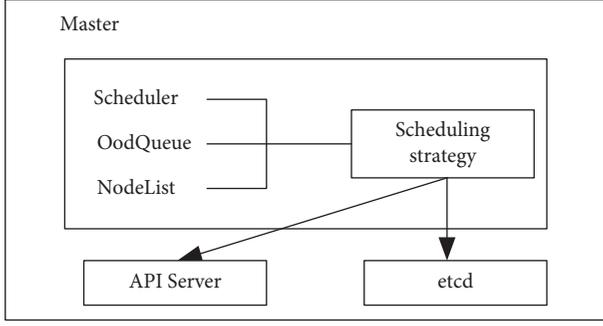


FIGURE 1: Schematic diagram of Kubernetes scheduler.

intelligence training platform. While increasing the number of tasks, the calculation time can be greatly reduced to meet the requirements of practical applications. However, in the Kubernetes cluster, the weights of the priority function of the scheduling algorithm are the same. Therefore, if the scheduling algorithm uses the primary selected working nodes when assessing the priority, it is difficult to meet the actual production standards. The scoring process of computing nodes is shown in Figure 2. If the weights are about 0 or 1, then it proceeds for further process; otherwise, there is no judgement.

The graphics card information is ignored in the priority function, which is an important aspect of the artificial intelligence training platform. In addition to the process of training the model in the platform, it also involves the process of data storage and processing. Therefore, under the premise of optimal resource utilization, that is, after the pod to be scheduled is scheduled to the host node, the operation of the pod can be minimized by other pods' use of resources. In this regard, the Max Resource Usage Priority algorithm [6] is proposed. The specific process is shown below.

*Step 1.* Count the number of pods running in the available host nodes. When the number is equal to zero, it means that the corresponding score pod account score is equal to 10 points. If the number is not equal to zero, it needs to be based on the number and running in the cluster. The ratio of the maximum value of the pod is calculated, and the specific rules are as follows.

$$p = \begin{cases} \frac{p_{\text{Max}} - p_A}{p_M}, & p_A > 0, \\ 10, & p_A = 0, \end{cases} \quad (1)$$

where  $p_{\text{Max}}$  is the maximum number of pods running in the node,  $p_A$  is the average number of pods, and  $p_M$  is the statistical value of the number of pods.

*Step 2.* The corresponding weights are set for various resources and need to consider whether to use graphics resources. If the pod needs to use the graphics card, it means that it mainly combines data to obtain the AI model, so CPU resources are more concerned; if the graphics card resources

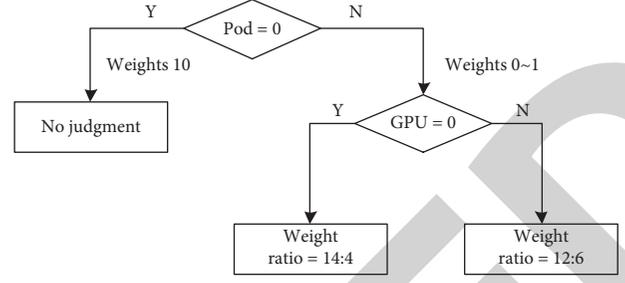


FIGURE 2: Process of calculating node score.

are not called, it indicates the main data storage and processing process and mainly focuses on memory and CPU resources at this time.

*Step 3.* Calculate the resource score of each available node. Appropriate weights need to be set during the calculation process, which is generally determined according to the number of pods in the node and whether to schedule graphics card resources, and multiple tests should be performed based on the weights obtained to determine an optimal weight value. Calculate the CPU resource score according to the obtained weight:

$$s = \begin{cases} 1, & p > 0, \\ 0, & p = 0, \end{cases} \quad (2)$$

$$w_C = \begin{cases} 12, & g > 0, \\ 14, & g = 0, \end{cases} \quad (3)$$

$$w_M = \begin{cases} 6, & g > 0, \\ 4, & g = 0, \end{cases} \quad (4)$$

$$m_R = \frac{M - U}{M}, \quad (5)$$

$$C_R = \frac{C - U}{C}, \quad (6)$$

where  $s$  is the CPU resource mark amount,  $w_C$  is the CPU weight value,  $w_M$  is the average CPU weight value,  $m_R$  is the weight average calculation score,  $C_R$  is the CPU resource mark amount calculation score,  $M$  is the total number of nodes,  $U$  is the number of nodes used by users, and  $C$  is the total amount of CPU resources.

*Step 4.* Calculate the final score  $S$  of the available nodes. The specific formula is shown below.

$$S = U + \frac{(m_R + c_R)}{2}. \quad (7)$$

According to the above calculations, the resource score is directly related to the number of available resources of the host node. If there are more resources, the score tends to be higher. If the number of pods in the node is not equal to zero, the score value is between 0 and 10, and when the number is

equal to zero, the maximum value of 10 can be reached, thus maintaining good consistency with the original design.

**2.1.3. Data Optimization Storage Design of Artificial Intelligence Platform.** For this platform, it mainly realizes the storage of data. It is proposed to use Ceph to store artificial intelligence training platform data. In the Ceph storage structure, the storage mechanism based on RADOS can ensure that the system can have perfect horizontal expansion capabilities, and the original API is provided in RADOS to perform very detailed operations on the RADOS objects. At the same time, in the hierarchical storage mode, the specific storage scheme is shown in Figure 3.

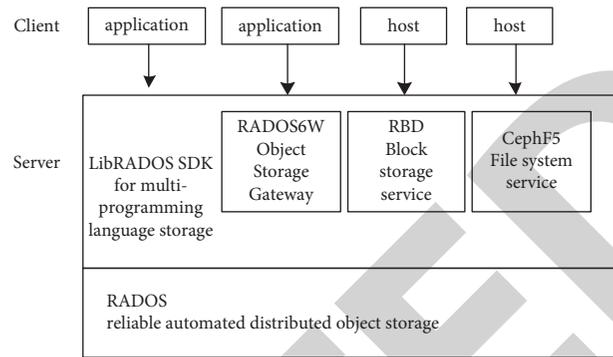


FIGURE 3: Ceph storage solution.

**2.2. The Construction of an Intelligent Media Ideological and Political Learning Platform under the Framework of the Artificial Intelligence Open Source Development Platform.** We build an intelligent media ideological and political learning platform under the framework of the above-mentioned cloud platform-based artificial intelligence open source development platform. In the era of smart media, information is created anytime and anywhere, and information is obtained in all aspects. As a result of progressively developing 5G and Internet of Things, the media communication is extending to smart homes, watches, glasses, wearables, and other smart devices including smart TVs and speakers. Now the smart robots that have been successfully researched and have entered thousands of households can automatically search for relevant content through voice control and display them according to equipment requirements. The way to obtain information is convenient and comprehensive. In addition to accessing courses on traditional computers and mobile phones, the smart media ideological and political learning platform can also push learning content to a wider range of scenarios. Learning resources can be obtained anytime and anywhere on any visual device, realizing learning fragmentation.

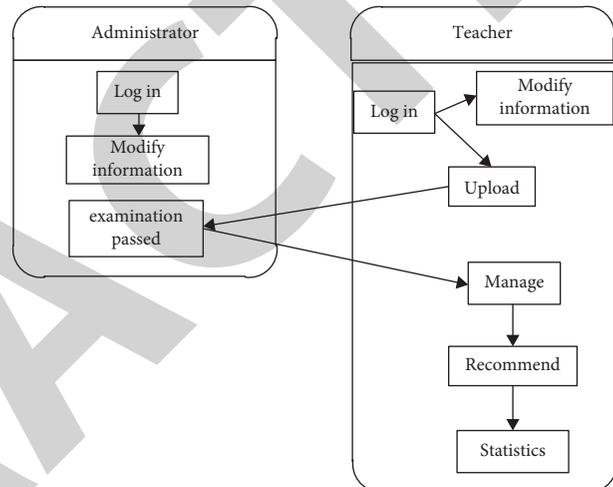


FIGURE 4: Resource management business flowchart based on the roles of administrators and teachers.

**2.2.1. Business Process.** Based on the purpose of system construction and user analysis, a business module composed of teaching resource management business phase and user management business phase is designed to manage resources and users.

- (1) Teaching resource management business stage: administrators, teachers, and users are the functional roles of this business. The role of the administrator is to review the uploading of courseware by the teacher; the role of the teacher is to upload, manage, and retrieve resources; users have access restrictions and can only access resources approved by the administrator. The resource management business process of the role of administrator and teacher is shown in Figure 4.
- (2) User management business stage: this stage is divided into two parts—registration and management, both of which are realized by the administrator. After

the registration information is approved, grouping and role assignment are carried out to complete the registration, viewing, and modification of user information. The process at this stage is shown in Figure 5.

**2.2.2. Business Decomposition.** Business decomposition is closely related to service development. The former serves as the basis of service discovery, providing users with multiple interfaces, adding services according to functional requirements, and encapsulating resources and services to realize the system's corresponding service business. According to the order from top to bottom, complete the management business decomposition.

- (1) Decomposing teaching resource management business: this business consists of two aspects—resource uploading and management. According to Figure 6, the new resource registration and use are hierarchically divided into eight parts; resource registration service, resource package import service, resource audit result submission service, resource status management service, and general retrieval service are each layered into two parts; the

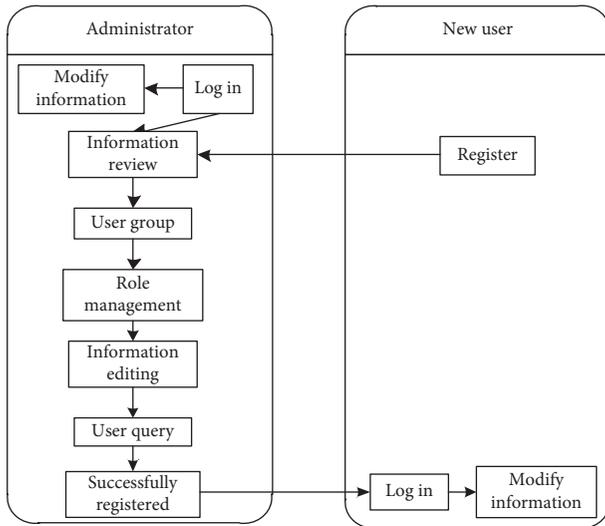


FIGURE 5: User management business flowchart.

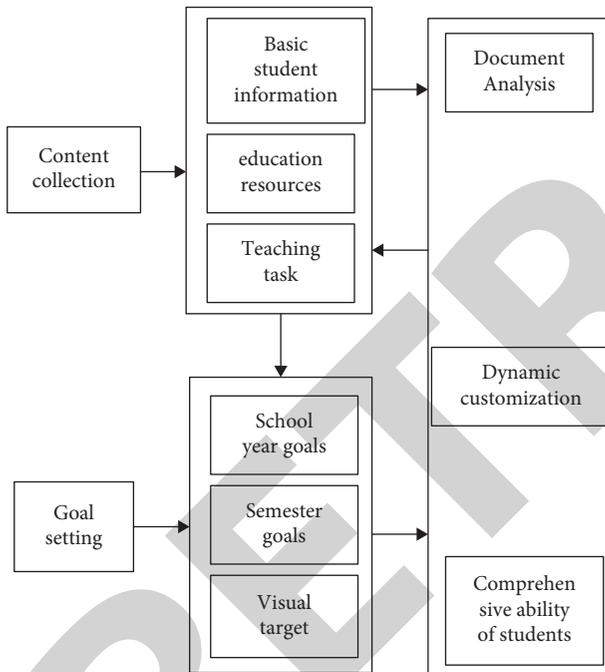


FIGURE 6: Data collection of ideological and political learning teaching resources.

recommendation list confirms that the service is broken down into three parts.

- (2) Decomposition of user management services: the new user registration service consists of eight levels; new user review, user information submission and modification, and role addition each have two parts; there are three levels of grouping lists and submitting audit results.

2.2.3. *Business Module Service Architecture.* The resource layer in the system service structure is the initial resource information base; the business process layer provides

service encapsulation for user registration and management, resource uploading, and management; user registration, resource retrieval, and WEB interface generation are all implemented by the presentation layer. Schematic diagram of service structure is shown in Figure 7.

### 3. Design of Resource Management Module of Intelligent Media Ideological and Political Learning Platform Based on K-Means Algorithm

The push of media information in the era of smart media is not blind, and it will intelligently analyze the user's concerns based on the information of user and then perform accurate push. Users have different learning needs in different positions and different levels. The intelligent media ideological and political learning platform needs to analyze their real needs and push the courses that best meet the users' current learning needs as much as possible within their limited learning time. Informatization, establish user connections through technologies such as recommendation algorithms, user learning profiles, knowledge graph databases, and context-aware computing and intelligently analyze the current professional needs of each user through informatization technology, so that learning content can actively find suitable students and push them achieve intelligent matching of students and content.

3.1. *The Construction of the Intelligent Media Ideological and Political Learning Teaching Resource Database.* The prerequisite for constructing a smart media ideological and political learning platform is to collect data on ideological and political learning teaching resources required by the platform. The content collection method is shown in Figure 6.

Collect ideological and political learning and teaching resource data to build a database, which can allocate reasonable ideological and political learning and teaching resource data to students. Develop relevant teaching goals and design learning goals according to the actual situation of students. The specific steps are as follows:

Step 1: according to the ideological and political learning needs, design the same teaching goals for all students.

Step 2: based on Step 1, according to the students' own abilities, further design ideological and political teaching goals for them, which must have a certain sense of hierarchy.

Step 3: based on Steps 1 and 2, through the dynamic customization method, according to the differentiation of each student's learning ability, a reasonable learning goal is tailored, and the teaching goal is adjusted in real time while learning to improve the standardization of the teaching goal.

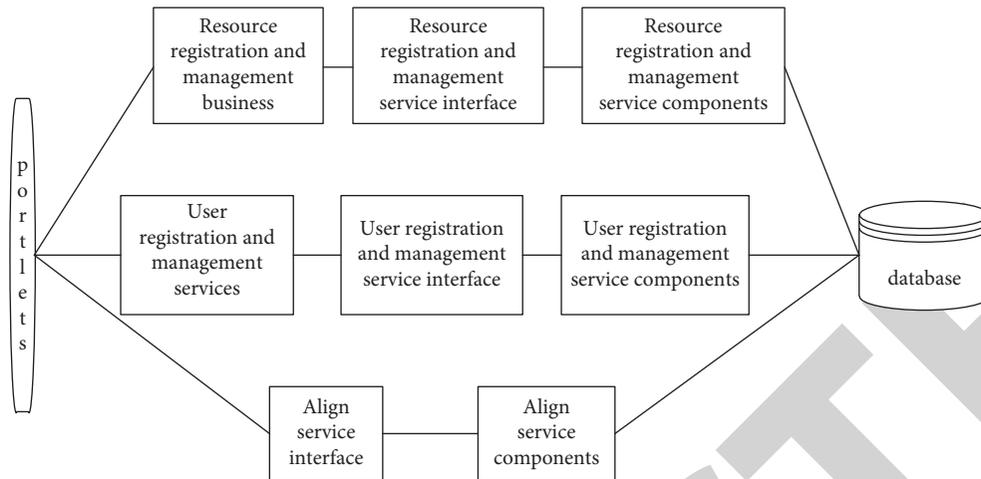


FIGURE 7: Schematic diagram of service structure.

On the premise of data collection and teaching goals of ideological and political learning teaching resources, the platform database is shaped, and the collected content is stored inside it, and it has the function of retrieval and use [7]. The interactive objects of this module are students, teachers, and administrators. When entering the module, users need to apply for entry first. The module will review the relevant ID card. In the case of user resource matching failure, the module will automatically exit. After the review is passed, users enter different interfaces according to their needs, and the module provides them with the required interfaces according to their needs. The interactive auxiliary function can design different types of same (different) step interactive tools in the module. At the same time, it is closely related to the teaching progress and generates toolbars at various stages, which is helpful for teachers to search for teaching resources and enhance students' understanding of knowledge. Teachers provide communication channels. Presenting the collected student information on the platform is helpful for teachers to design learning plans for them to fill in the knowledge left in the classroom. Teachers fill in the teaching content through a database, which contains multimedia courseware. The specific technology is shown in Table 1.

The multimedia courseware technology in the database can enhance the students' independent learning ability. The students in the database occupy a major position, and valuable teaching activities are arranged for them to ensure that they can search for ideological and political learning resources at any time in the process of students and improve the efficiency of ideological and political learning.

### 3.2. Ideological and Political Teaching Resource Sharing Model Design

**3.2.1. Analysis of Teaching Resource Categories.** Use clustering algorithm to classify the collected teaching resources and divide different objects into different clusters. Because the clustering algorithm belongs to unsupervised learning,

the class analysis is done under the premise of unknown target conditions [8]. The most famous clustering algorithm is the  $K$ -means algorithm [9].  $K$  in the  $K$ -means algorithm represents the number of sample classifications. The specific value depends on the actual situation. The implementation process of the algorithm is as follows.

Assume that the given training sample  $\{x^{(1)}, x^{(2)}, \dots, x^{(m)}\}$ , each  $x^{(i)} \in R^n$  does not include the label information  $y$ . Randomly select  $K$  cluster centroid points and denote it as  $u_1, u_2, \dots, u_n \in R^n$ .

Repeat the following steps until convergence.

Calculate the class to which each sample  $i$  belongs:

$$c^{(i)} = \arg \min_j \|x^{(i)} - u_j\|^2 \quad (8)$$

Calculate the similarity between each sample and the centroid. Here, the Euclidean distance is used as the criterion for similarity. Select the centroid points with a small distance from the sample and divide the samples with the same centroid point distance into the same cluster to complete the initial classification of the samples [10].

Recalculate the centroid point of each cluster  $j$ :

$$u_j = \frac{\sum_{i=1}^m 1\{c^{(i)} = j\} x^{(i)}}{\sum_{i=1}^m 1\{c^{(i)} = j\}} \quad (9)$$

For the sample data of the same category, recalculate the centroid of the category to complete the data update. This article uses the average value of the sample data of the same category as the basis for the centroid point update [11]. Repeat the above operation until convergence.

#### 3.2.2. Redundant Processing of Teaching Resource Data.

An indispensable item in machine learning algorithms is data processing, which directly affects the output results. Data processing generally includes normalization processing, default value processing, and so on [12]. First, remove redundant units from the collected data and convert them

TABLE 1: Multimedia courseware technology in the database.

Core technologies	Classification	Technical support	Teaching application
Optical technology	Slideshow	Based on the principles of light reflection and refraction	Display resources such as text and images, which are more suitable for key and difficult teaching content
	Projector		
Film and television technology	Broadcast	Expanded application of MP4	Enhance students' interest in learning
	Movie	Direct application of multimedia technology	
	Television		
	Video		

into numerical data for later analysis and calculation; in the Euclidean distance, each data index has the same importance. Regarding the collected data, normalize the situation where the values are quite different and control all the values within a reasonable range. The result of maximizing enterprise value is  $\max$  and the minimum value of each indicator is  $\text{range} = \max - \min$ , and after unified naturalization, the result is  $x = (x - \min) / \text{range}$ , the variable value of each indicator is between 0 and 1.

Most schools have their own independent heterogeneous systems for teaching resources and have not established resource sharing with other schools, forming information islands, and a series of problems have arisen from this. In order to improve this situation, there are currently two solutions:

- (i) Abolish all existing resource systems and re-establish a resource sharing system with a unified standard.
- (ii) Based on the existing resource system, establish a unified standard, integrate and utilize these resources, and establish a teaching resource sharing model on this basis.

However, the budget of the first method is too high, and the resource system established by each school has its advantages, and it is not feasible to abolish all of it. Therefore, the second method is more in line with actual needs. This article builds an ideological and political teaching resource sharing model based on this. This model is mainly used by teachers and students, and it can provide teachers with modules for improving professional skills in the model, such as resources provided by experts and scholars. The model also contains a large number of high-quality curriculum resources, teachers can refer to and assist teaching, and students can learn independently. It is a platform that combines teaching and learning, as well as resources, interaction, and display.

**3.2.3. The Building Blocks of the Teaching Resource Sharing Model.** Due to the relatively small amount of data in the resource system and mostly loose coupling methods, a data integration scheme suitable for sharing ideological and political teaching resources is proposed. First, establish a central database, integrate all the data in the shared model into the central database, and then classify the teaching resources in the central database according to certain classification standards to facilitate the search for later teaching materials. The module composition of the teaching resource sharing model is shown in Figure 8.

In order to realize resource sharing and facilitate the implementation in phases and steps, the sharing model is divided into three levels: basic layer, environment layer, and application layer. The functions implemented at each level are as follows:

- (i) *Basic Layer.* The basic layer is mainly composed of a shared resource library and various system data that provide data for the shared resource library. In the process of integrating various teaching resources, it is necessary to adapt to the development of students, based on advanced teaching concepts, and ensure the quality and content of the resources in the shared model. After the data enters the sharing model, its main content is first analyzed, and various data for query, analysis, and statistics are extracted and combined into a dataset required by the application theme, which is convenient for the search and application of resources.
- (ii) *Environmental Layer.* The environment layer mainly includes streaming media servers, web servers, address servers, and FTP (File Transfer Protocol) servers. The main function is to implement the specific application of the model and execute the operation command after receiving the user's search demand. Store the information entered by the user in the database and receive requests submitted by dynamic web pages. After the server receives the search instruction, it executes the related GUI (graphical user interface) program, performs related operations with the database when conditions permit, and finally feeds the results back to the user through the server.
- (iii) *Application Layer.* The application layer is mainly composed of teaching media and teaching environment and is the interface part that feeds back the results to the user. Among them, teaching media refer to graphics library, text library, audio/video, image library, courseware library, and so on; teaching environment refers to teachers and demonstration halls. The application layer realizes the connection between the user and the sharing model and conveys information to the user through the user interface. When the user accesses the shared model, the server directly displays the results required by the user after the operation of the environment layer. In general, the teaching resource sharing model developed by the structure uses three

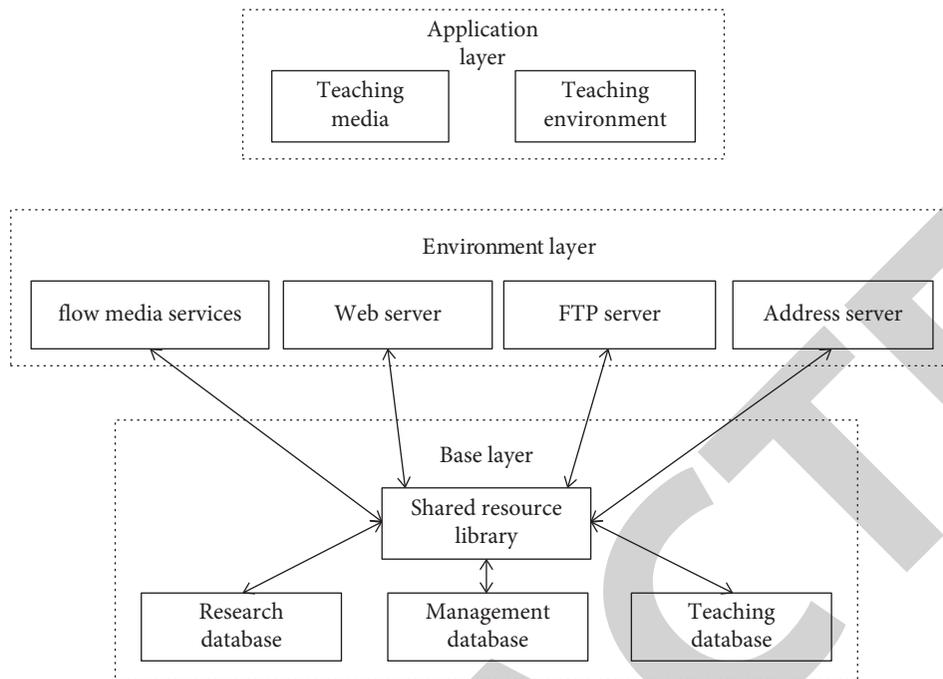


FIGURE 8: Model building blocks.

levels to realize the classification, storage, and application of resources. It can not only promote the effective use of resources but also make the management of the model easier. The functional modules of the teaching resource sharing model integrate the management, sharing, and release of teaching resources. Based on ideological and political teaching resources, supported by the resource library of each school, use a variety of technical means to achieve the demand for co-construction and sharing of teaching resources. Next, make a specific analysis of each functional module.

- (iv) *System Management Module*. In this module, teachers can modify, delete, and update any resource in the model and can divide various resources into groups and set group weights. Resources can be backed up and restored when necessary.
- (v) *Standard Management Module*. The unified standard of the model is determined, the basic standard is to select teaching resources, and the inappropriate resources in the model are modified or deleted according to the standard.
- (vi) *Media Material Module*. According to the professional ideological and political characteristics, teaching resources are classified level by level according to different classification standards. This is conducive to the centralized management of resources, the formation of a professional management system, and ultimately the formation of the teaching resource management of the subject. According to the type of course, it can be divided

into five categories: text, audio/video, animation, and image.

- (vii) *Online Course Module*. Network courses are network teaching environments constructed according to different teaching strategies and teaching goals. The online course module has changed the traditional teaching mode in the past, combining the teaching content with the network environment, so that students can independently find resources for online learning. Compared with traditional teaching methods, online courses are more suitable for the relative separation of teachers and students, mainly based on the distance education model of students' self-study and teacher guidance. The two indispensable parts of the online course module are as follows: one is the teaching content formed according to the teaching goals and teaching strategies and the other is the network environment.
- (viii) *Test Question Bank Module*. The test question library module is a collection of subject questions realized in a computer system according to a certain educational measurement theory and realizes the functions of searching, entering, deleting, modifying, batching papers, and score statistics. The types of test questions stored in the test question library module should include fill in the blanks, choice, noun explanation, judgement, short answer, question and answer, and multiple choice. Based on the educational measurement theory, the teaching measurement tool is constructed through precise mathematics modules. The test question

library module is more complicated than other modules, which includes not only the management and marking functions of the test questions but also the analysis functions such as score statistics.

- (ix) *Courseware Library Module.* Courseware is a very effective “assistant” in the teacher’s teaching process. It is formulated by the teacher according to the teaching goal and reflects the teaching content and teaching strategy. When designing courseware library modules, attention should be paid to coherence and systemicity to meet the teaching needs of teachers and facilitate students’ understanding.
- (x) *Case Library Module.* A reasonable and standardized case is a very important teaching resource in the teaching process of teachers. A complete case should include teaching materials, analysis and evaluation, and teaching opinions. Teachers can select high-quality cases through the case library module to increase students’ enthusiasm for learning. The cases in the case library module are mainly provided by experts, scholars, and experienced teachers.
- (xi) *Directory Index Module.* The catalog index module matches the keywords entered by the user with the resources in the model and provides the users with more relevant resources and links. This module uses a variety of strategies to synchronize the distributed stored course resources, so as to realize the functions of fast retrieval and positioning of resources in different resource libraries.

## 4. Experimental Analysis

In this section, the experimental analysis is carried out. Here, the proposed methods are experimentally verified and their performance is proved to be better and flawless. First, the parameters are discussed, and then the outcomes of the experiments are analyzed.

*4.1. Experimental Parameters.* In order to verify the performance of the designed intelligent media ideological and political learning platform based on artificial intelligence technology, experiments are carried out to verify it. Apply the designed platform to ideological and political teaching in a university. Reference [3] and Reference [4] are used as experimental comparison methods to test the ideological and political learning performance of different methods. Obtain the resource sharing rate of the system when the shared ideological and political teaching resources are in the range of 1000MB–5000 MB as the experimental data.

*4.2. Analysis of Experimental Results.* In the range of shared ideological and political teaching resources of 1000MB–3000 MB, the experimental data of the resource sharing rate comparison of different methods are shown in Table 2.

According to the resource sharing rate comparison experimental data in Table 2, it can be seen that within the range of 1000MB–5000 MB of shared ideological and political teaching resources, the resource sharing rate of the intelligent media ideological and political learning platform based on artificial intelligence technology is higher than that of the two comparison methods. It can be seen that under different amounts of ideological and political teaching resources, the ideological and political teaching resource management system based on the decision tree algorithm has a higher sharing rate of ideological and political teaching resources, which can better realize the sharing of ideological and political teaching resources.

The evaluation of platform scalability is to test the performance impact of increasing resources on the platform. Taking 1000 MB teaching resources as a starting point, multiplying the resources to 16000 MB, recording the response time of the platform during the increase phase, and evaluating the scalability of the platform, the response time obtained by statistics is shown in Table 3.

It can be seen from the data in Table 3 that the response time of the platform in this paper continues to decrease as the amount of resources increases. When the amount of ideological and political teaching resources is 16000 MB, the response time of the platform is 0.08 s, while the platform response time of Reference [3] and Reference [4] is 0.58 s and 0.64 s, respectively. This is because the intelligent media ideological and political learning platform based on artificial intelligence technology can improve the calculation efficiency of the artificial intelligence training platform by the Max Resource Usage Priority optimization algorithm. Therefore, the increase in the amount of resources does not have a major impact on the system and fundamentally improves the scalability of the platform.

Taking 100 students in the experimental group as an example, three months after the application of this platform, the statistics of the students’ interest in ideological and political learning before and after the application of this platform are shown in Figure 9.

It can be seen from Figure 9 that the application of the platform of this article will help increase students’ interest in ideological and political learning. After the application, the proportion of students who are very disinterested or not interested in ideological and political learning has dropped to 0%, and the degree of interest in ideological and political learning is average. Compared with the preapplication, the number of students who are interested in the teaching has decreased significantly, and the proportion of students who are interested and very interested in the teaching has

TABLE 2: Comparison of experimental data of resource sharing rate.

Shared ideological and political teaching resources (MB)	Resource sharing rate (kbps)		
	Intelligent media ideological and political learning platform based on artificial intelligence technology	Reference [3] platform	Reference [4] platform
1000	474.53	341.02	365.20
1500	499.58	333.25	378.20
2000	478.50	351.20	362.01
2500	445.63	333.60	332.01
3000	469.36	358.32	338.90
3500	489.63	384.01	314.20
4000	478.69	336.30	336.25
4500	501.23	335.24	386.14
5000	502.30	339.45	362.02

TABLE 3: Platform response time (unit: s).

Teaching resources (MB)	Intelligent media ideological and political learning platform based on artificial intelligence technology	Reference [3] platform	Reference [4] platform
1000	0.12	0.52	0.61
2000	0.11	0.56	0.62
4000	0.09	0.53	0.66
16000	0.08	0.58	0.64

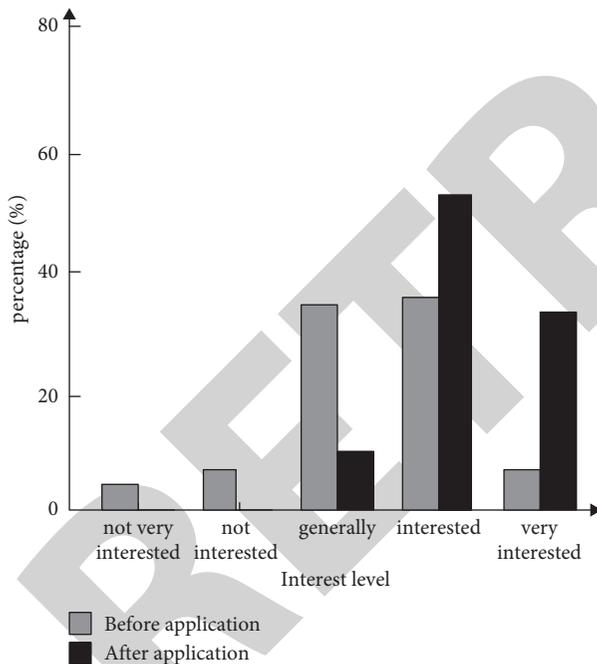


FIGURE 9: Statistical results of the degree of interest in ideological and political learning.

increased significantly, accounting for a total of 89%. Experimental results prove that the application of this platform can effectively enhance students' interest in ideological and political learning.

## 5. Conclusion

Using the modern technologies of artificial intelligence, this study built an intelligent media ideological and political

learning platform. Furthermore, we carried out an experimental analysis, which showed that the rate of ideological and political teaching resources shared by the proposed platform is faster. It was also proven that the platform response time is short in the proposed platform. The interest of students in ideological and political learning was gained by applying the platform. Hence, a significant improvement had been made in the literature and the related algorithm such as  $K$ -means algorithm.

## Data Availability

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

## Conflicts of Interest

The authors declare that they have no conflicts of interest.

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