

Research Article

Political Thought Pre-Alarm Mechanism of Campus Emergencies Based on Data Mining Technology

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Political thought education is the lifeblood of all work. It is a critical and urgent task for current political thought education and campus management to investigate how to effectively prevent and respond to campus emergencies in a scientifically sound manner. This paper examines and evaluates the current state of political thought as a pre-alarm system for campus emergencies. Then, using DM technology, the cluster analysis algorithm and correlation analysis algorithm are used to mine and analyze potential links in the massive data on campus, study the characteristics of students' behaviours, analyze the rules of students' behaviours, and cluster out the categories of students' behaviours. The political thought pre-alarm model of campus emergencies is built on this foundation. This pre-alarm model is compared to two other emergency pre-alarm models in order to ensure its reliability and applicability. Many experimental results show that this pre-alarm model has a prediction accuracy of up to 94.68 percent, which is higher than the traditional pre-alarm model's 9.17 percent. The application of DM technology to political thought pre-alarm of campus emergencies has produced positive results in this paper. It has some theoretical and practical implications for the field of political thought prior to the campus emergency alarm.

1. Introduction

Globalization, marketization, and information technology have altered the social and humanistic environment of political thought education in the past, resulting in a crisis of "invalidation" for political thought education in schools. Political thought education is essential for economic and other types of work, as well as for dealing with emergencies [1]. How to deal with the challenges in political thought education in such an unusual situation is a new topic that political thought educators have been practising and studying for a long time. Simultaneously, the internal environment of the school has changed dramatically as a result of educational reform, and more uncertain factors have emerged. As a result, various types of emergencies occur on campus from time to time. The sum total of certain composition modes, operation modes, interactions, and effective functions formed by various elements of students' political thought education in the running process due to some action mechanism is referred to as the mechanism of students'

political thought education in campus emergencies [2]. In the long run, the school realized the importance of political thought education in dealing with campus emergencies, so it began researching political thought education in dealing with campus emergencies, and it achieved a number of milestones that demonstrated the unique value of political thought education. Regularity, integration, dynamics, and creativity are the four main characteristics of the political thought education mechanism. For different levels of political thought education mechanisms, these four characteristics are summarized [3]. Educators and educatees, objective elements, operating environment, operating mode, and educational content are the five elements of political thought education for campus emergencies. Campus emergencies have a negative impact on students' physical and mental health, disrupt students' normal life order, and the school's teaching management, as well as the school's good image and have a negative impact on society. As a result, we must properly handle campus emergencies in order to improve students' physical and mental development.

At present, there are many shortcomings in the practice of solving the campus emergencies, which requires later researchers to stand in a brand-new perspective, combine the characteristics of the times and the characteristics of the school itself, and adopt new ideas and methods to deal with the campus emergencies. That is, to predict and solve it by using the relevant theories and methods of political thought education. DM (Data mining) [4] is a new type of technology, which involves many disciplines. It refers to the process of extracting valuable information from a large number of irregular and impure data. With the development of information technology, the application of DM has been very extensive. As long as the industry has databases with analytical value and demand, DM tools can be used for purposeful excavation and analysis. Compared with traditional data processing methods, DM is more effective for data processing [5]. Because the general mathematical statistics methods cannot analyze massive data, the analysis and mining of massive data must be realised by more effective processing methods. The emergence of DM has brought the dawn for data processing. The object and foundation of DM are various forms of data, including structured data and unstructured data. Structured data is like data records in database management system [6]. Under the background of building a harmonious society, how to maintain the stability and development of the campus, and effectively prevent and solve all kinds of school emergencies have attracted the attention of the educational circles and the society. It is of great theoretical and practical significance to strengthen the research on the political thought pre-alarm mechanism of campus emergencies. This paper investigates the political thought pre-alarm model of campus emergencies in depth, using DM technology. Here are some of its innovations:

- (1) This paper argues that the mechanism of students' political thought education should not only emphasise the functions of various elements and the overall coordination among them, but also give full play to people's subjective initiative and be adept at activating the potential of humanistic elements, based on research. This paper examines the political thought pre-alarm model of campus emergencies in depth and constructs the corresponding pre-alarm model, all using DM technology. The results show that the proposed model can achieve all-around political thought dynamic pre-alarm of campus emergencies, and that it has clear advantages in terms of pre-alarm adaptability, model fitting degree, and information overload handling efficiency, among other things.
- (2) The model screens out the hot direction of public opinion and sensitive information keywords by analysing the network log information of the campus network log system and various social networks; grasp the students' ideological trends in time, and prevent the wrong public opinion from spreading and fermenting quickly, and even affect social development and change. In a MATLAB environment, the model's effectiveness is simulated and validated.

The experiment shows that, in the context of a multidimensional application background, this model can solve problems such as a misalignment of manpower costs and actual efficiency, a lag in information feedback, and so on in the process of political thought pre-alarming campus emergencies. It has advantages such as accurate dynamic pre-alarm, strong generalisation pre-alarm ability, high risk management, and control trend prediction efficiency.

2. Related Work

Some schools have made preliminary explorations in the construction of political thought education mechanism for campus emergencies. However, due to the political thought education's neglect of emergency prevention and the absence of emergency education plans, the political thought education mechanism is not perfect. At present, some scholars have made corresponding research on this aspect.

Baer et al. put forward corresponding countermeasures for the problems and causes of political thought education in response to campus emergencies. The countermeasures include improving the principles of political thought education to deal with campus emergencies; innovating the content of political thought education to deal with campus emergencies; establishing and improving the response mechanism of political thought education to deal with campus emergencies [7]. Kubicek et al. proposed that in daily political thought education, we should focus on improving the effectiveness of political thought education, and establish a dynamic monitoring and pre-alarm mechanism for college students' ideology [8]. Likki et al. introduced artificial intelligence algorithms to analyze psychological data, and gave timely warning to students with psychological abnormalities according to the classification status [9]. Xu et al. established a distributed computing platform for massive data in schools, used a clustering algorithm based on information entropy and density improvement to analyze the massive data, and used the association rule algorithm to predict and analyze the data [10]. Tushar et al. developed a dynamic pre-alarm system for political thought education based on an improved support vector machine algorithm, aiming at the problems such as lag in information feedback, imperfect pre-alarm intervention mechanism, and weak risk management and control capabilities in the current political thought education work in schools [11]. Guo designed a mental state pre-alarm system for students based on DM and intelligent algorithms [12]. The system uses a high-precision depth-of-field camera as a data acquisition device, takes students' facial data as the original data for psychological analysis, and processes the original data through DM. Troisi constructed a student behavior analysis system based on DM. And the comprehensive student behavior portrait module, student comprehensive pre-alarm module, student behavior trajectory module, student big data analysis report module, and student pre-alarm rules in the student behavior analysis system are analyzed and designed in detail [13]. Hirn have conducted research on DM-related technologies and distributed computing, collected, sorted, and cleaned the data of each school information system, formed a data warehouse, and analyzed and mined the data warehouse [14]. Luo established a dynamic pre-alarm model for political thought education by constructing a large log database based on user behavior, introducing the support vector machine algorithm, and integrating it into the pre-alarm classifier [15]. The system proposed by O'Keefe et al. mainly analyzes the students' learning behavior, and then understands the students' recent learning situation, and then sends the students' learning situation to the students by e-mail to provide the students with learning guidance [16]. Schultz and Baker established a model of student behavior characteristics, and used experimental data to verify the accuracy of the model; relying on the school's digital campus platform, they established a student behavior analysis and predictive analysis platform based on Spark parallel processing [17]. Zhou et al. conducted a qualitative analysis of college students' emergencies based on the generalisation and summary of related concepts. It summarizes the obstacles existing in the current college students' emergency pre-alarm mechanism from four aspects: the lack of a complete emergency management system for college students, the lack of a permanent emergency management organization, the lack of smooth information communication channels, and the lack of a complete emergency plan system. Question [18].

This paper proposes and constructs a new political thought pre-alarm model of campus emergencies, based on an in-depth discussion of previous related literature and the use of DM technology. The Hadoop big data platform is chosen as the data collection and distributed storage platform in this paper, with Java as the main server development language, React as the front-end development framework, and MysqlCluster as the back-end development framework. Students can be classified and intelligently analyzed using the prediction platform of their behaviour characteristics. To improve the effectiveness of political thought education, guide the direction of public opinion, and insist on positive guidance and persuasion education for students, it provides a new idea for the informatization of subsequent teaching management and scientific research management; at the same time, it provides a new idea for the informatization of subsequent teaching management and scientific research management. This model has the advantages of low implementation difficulty, high execution efficiency, and good timeliness when compared to the traditional manual survey method, according to the study.

3. Methodology

3.1. Political Thought Education and Campus Emergencies. Political thought education has important theoretical and practical significance, and has strong comprehensive characteristics. It is mainly manifested in two aspects: ① As a discipline, political thought education has absorbed the achievements of many disciplines and comprehensively applied them. ② People's thoughts are changing rapidly and complicated. Only through multifaceted and multiangle

research can we grasp the law of their movement. Traditional political thought work entails indoctrination to improve people's ideological and cognitive levels, resulting in the formation of a relatively fixed mode of thinking [19]. However, as Internet technology becomes more widely used, the impact of various emergencies is no longer limited by geography or time, resulting in changes in people's behaviour and values as a result of changes in the external environment, and traditional political thought work is becoming increasingly unsuitable for the current tasks. Campus emergencies are becoming more common, disrupting not only the normal teaching schedule but also the psychology, thoughts, and behaviours of college students. This not only poses a challenge to political thought education in schools, but it also presents a new opportunity for its effective development. The importance of practicality in political thought education cannot be overstated. Long-term practice shapes political thought education, and its theoretical height is constantly growing and improving in practice. Political thought education emerges from a variety of practical activities, and it is even more critical to return to practice to be tested, to correct mistakes, and to develop theoretical systems so that they can be developed. Political thought education is a broad educational and management science with a solid theoretical foundation. The relevant elements of political thought education are organically combined, and they play their respective functions in mutual connection and interaction, according to structural functionalism. Sudden events at school or involving students are referred to as campus emergencies. These incidents have resulted in harm to students' lives and property, as well as a significant impact on the school security and stability. To deal with them, schools and even society must take steps. The occurrence of campus emergencies provides the best platform for testing political thought education theory in practice, and its theory guides the solution of campus emergencies. We can constantly discover its flaws and imperfections during the solution process, making it more scientific and better serving the incident resolution.

If campus emergencies are not handled well, they will lead to greater crises, which will seriously affect the physical and mental health of college students and the stability of schools. If they are handled well, their harmfulness can be reduced [20]. In order to better deal with emergencies, we need to classify campus emergencies on the basis of understanding the basic definitions. According to the different causes of campus emergencies, this paper classifies them reasonably, combines different types of campus emergencies, finds out their common characteristics, and puts forward targeted coping strategies. Because emergencies are caused by different reasons, they can be divided into different categories according to the induced reasons, mainly in the following categories: 1) Natural disasters. 2) Accidents and disasters. 3 Public health. 4 Social security category. ⑤ Interpersonal relationship. As a kind of public emergencies, campus emergencies have the general characteristics of public emergencies, namely, suddenness and harmfulness. However, the particularity of the subject and area of campus emergencies makes campus emergencies unique. In recent years, with the continuous development of information technology and mass media, campus emergencies are rapidly spread by the media and public opinion, which not only have adverse effects on teachers and students in schools, but also "radiate" to the country and society. This kind of influence is from the material level to the spiritual level, and even threatens life, seriously affecting the harmony and stability of the whole society. In order to solve the problem better, we need to fully understand the characteristics of campus emergencies. Campus emergencies have the following characteristics: 1) Sudden. 2) Harmfulness. 3) Sensitivity. ④ Diffusion. ⑤ Diversity. The political thought education mechanism has both the generality of the mechanism and its own particularity. Therefore, only by in-depth study of the concept and connotation of political thought education mechanism can we grasp the basic characteristics of political thought education mechanism and the similarities and differences between it and other mechanisms, even between similar and different concepts. The mechanism of political thought education has four main characteristics: regularity, integration, dynamics, and creativity. These four characteristics are summarised for different levels of political thought education mechanism. Regularity refers to the attribute of mechanism. Integration refers to the function of the mechanism. Dynamics is aimed at the operation of the mechanism. Creativity refers to the development of mechanism. Information management and control of the complete life cycle of campus political thought education is shown in Figure 1.

The task of the school is to cultivate talents, and talents are not only embodied in intellectual education, but also in moral education. Some college students' thoughts will fluctuate to some extent due to the influence of all kinds of unexpected events at school, and bad emotions will affect their future study and life if they are not educated in time, which requires political thought education to play a role. The principles of political thought education in dealing with emergencies include: 1) the principle of seeking truth from facts. ② Principle of equality and democracy. ③ The principle of combining emotion with reason. ④ Principle of layering and focusing. ^⑤ People-oriented principle. The most important core guiding principle in political thought education methods is the principle of seeking truth through facts. During the investigation and evidence gathering process, political thought education not only helps to calm students' emotions, but it also applies its principle of seeking truth from facts, determining the cause of the accident and obtaining first-hand information, allowing the problem to be handled correctly and an accurate report to be given to the appropriate leaders and departments. In dealing with campus emergencies, the stratification principle is a practical application of the hierarchical principle of political thought education. "Political thought education should begin with the characteristics of the educated object, treat educated objects differently depending on their ideological conditions, teach students according to their aptitude, and carry out education at various levels," it says. The principles of equality and democracy should not be overlooked when dealing with emergency situations on campus. We should

treat both sides of the incident equally, without bias, respect the legitimate rights and interests of every citizen, and give education and self-education full play. Simultaneously, in the face of a variety of unanticipated events on campus, we should prioritise emotion and then use reason to solve problems. We can study the management and operation of the political thought education mechanism from a methodology standpoint because it has the characteristics of regularity and stability. Understanding the fundamentals and rules of the function of the political thought education mechanism allows you to not only control but also predict the mechanism's outcomes. The content of political thought education mechanisms should include a prevention mechanism in advance, an emergency mechanism during the process, and a handling mechanism afterward, depending on the different time periods of campus emergencies. It manifests itself in a variety of ways, including ideological dynamic monitoring and pre-alarm mechanisms, psychological adjustment mechanisms, educational guidance mechanisms, information regulation mechanisms, learning innovation mechanisms, and dynamic evaluation mechanisms. Political thought education has played a positive role in reducing or avoiding school emergencies. In addition, its ideological communication, organizational mobilization, and other functions are beyond the reach of other measures. It plays an indispensable role in preventing and responding to campus emergencies.

3.2. An Political Thought Pre-Alarm Model of Campus Emergencies Based on DM. DM refers to the process of extracting novel, effective, potentially useful and understandable patterns by using the knowledge and technology of machine learning, statistical learning, and other related aspects to sort out, summarize, and regularly discover highvalue models or data from massive data. DM integrates the knowledge of artificial intelligence, mathematical statistics, etc., and is an interdisciplinary technology that discovers and mines the regular information with high application value hidden behind a large amount of data from the historical data accumulated in the database. Among the functions of DM, they are interrelated rather than independent when they play a role [21]. Tasks of DM: First, the task of descriptive mining is to describe the general characteristics of data in the database. Secondly, the task of predictive mining is to infer and predict the current data. DM can extract hidden information from massive data, and process historical data through analysis. On the one hand, it summarizes the rules of data hiding, and explores the relationship between potential associations among different data; On the other hand, it can also predict the future development trend scientifically and effectively, so as to maximize the use value of data. DM uses a new way of thinking to analyze and mine data, leaving aside the traditional thinking mode of data processing. Therefore, this method was quickly applied in the academic circles and was taken seriously. The function of DM is to specify the pattern type and find it out from DM tasks. It involves the fields of description, discovery concept association, and

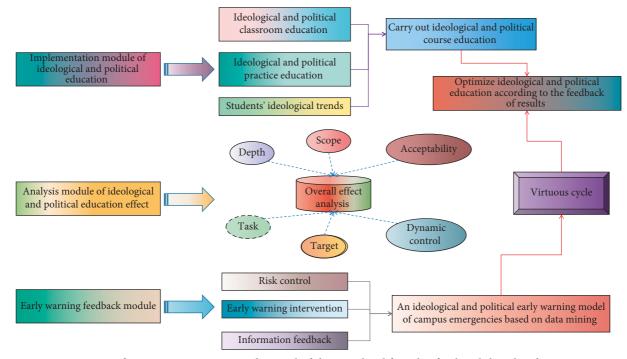


FIGURE 1: Information management and control of the complete life cycle of political thought education.

classification. It also includes prediction and clustering, and deviation analysis. After years of development, DM has formed a set of processing flow suitable for data processing and analysis. That is, data acquisition, data preprocessing, feature extraction, feature selection, and DM and model evaluation. The process can also be simplified as data preprocessing, DM and model evaluation. This chapter introduces the DM technology into the political thought prealarm research of campus emergencies. It is very beneficial to introduce DM technology into the field of campus database. This chapter uses DM technology to construct the political thought pre-alarm model of campus emergencies. The system physical deployment and Hadoop cluster physical architecture of this paper are shown in Figure 2.

For the development of the first stage of system design, selecting a good system structure development platform is critical. It has to do with whether or not the final desired goal can be achieved, and it is critical that it is supported by the appropriate software. The B/S three-tier architecture is used to design this teaching decision support system. The school's data can be centralised and unified by constructing a Hadoop-based big data platform. The platform can collect data from all of the school's business systems and then send it to a big data platform for cleaning and standardisation. The isolated points isolated from other data are usually deleted when processing the noise data. This method has the drawback of potentially erasing the valuable data. As a result, the noise data is cleaned up using binning, regression, and cluster analysis techniques in general. The relationship between data items is used to categorise association patterns. Although the association pattern partition is simple and easy to understand, few data can meet this rule, making it difficult to discover this relationship. As a result, carefully analysing and sorting out the data is critical. All big data applications

can benefit from the platform architecture. The core part is data analysis and processing, and the analysis results are obtained through DM, statistical analysis, machine learning, and related computing technologies. It also includes basic resources, data storage, data analysis and processing, and platform services.

The basic idea of the K-means algorithm is to divide n research objects into K categories according to the principle that the dissimilarity of data within the same cluster is as large as possible and the dissimilarity of data between different clusters is as small as possible. During the operation, the Euclidean distance d is used to measure the similarity between two data points:

$$d = \sqrt{\left(X_1 - X_2\right)^2 + \left(Y_1 - Y_2\right)^2}.$$
 (1)

The larger the distance, the lower the similarity between the data points; the smaller the distance, the higher the similarity between the data points. The Euclidean distance between the target point and the cluster center represents the data dissimilarity as the basis for grouping judgment, so that the sum of squared distances from each data point in the cluster to the cluster center a is the smallest; and the sum of squared distances is used as the objective function w. Using the method of finding the minimum value of the function, the adjustment rule of the iterative operation is obtained:

$$w = \sum_{i=1}^{n} \min(X_i - a)^2.$$
 (2)

The K-means algorithm needs to reselect the cluster center through constant sample classification adjustment and iterative process to get the final result. The average distance of all sample data points is

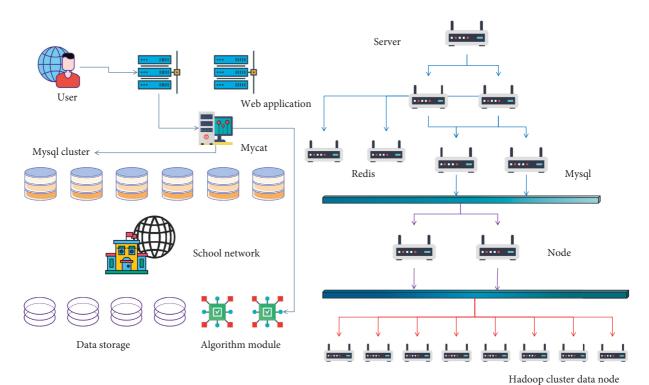


FIGURE 2: System physical deployment and Hadoop cluster physical architecture diagram.

$$Meandist(S) = \frac{2}{n(n-1)} \times \sum_{i \neq j, i, j=1}^{n} d(x_i - x_j).$$
(3)

The objective function is the square error criterion function, which is defined as:

$$\sigma_i = \sqrt{\frac{\sum_{i=1}^{n_i} (x_i - c_i)^2}{|C_i| - 1}},$$
(4)

where c_i is the centroid point of the data objects of the same class. It is defined as:

$$c_i = \frac{1}{|C_i|} \sum_{x_j \in T_i} x_j, \tag{5}$$

where c_i represents the center of the *i* th cluster; $|C_i|$ is the number of data objects in class C_i .

In order to realize the nonlinear multicore DM and clustering effect, improve the memory consumption ratio, the interpretability of data sets, and strengthen the adaptability of kernel functions, this paper introduces the hot and cold data separation factor and the random gradient descent factor to improve the algorithm. The multidimensional application-oriented dynamic pre-alarm model of political thought education can be transformed into an unlimited experience loss minimization problem with penalty factors. The objective function of the minimization problem is defined as:

$$f(\omega) = \min_{\omega} \frac{\lambda}{2} \|\omega\|^2 + \frac{1}{m} \sum l(\omega, (x, y)).$$
(6)

Make sure that the running time of the algorithm satisfies $O(n/\lambda_{\varepsilon})$. where *n* is the sum of the dimensions within the constraint space of ω and *x*. In order to solve the dual problem corresponding to the nonlinear kernel, the following mapping transformation is performed:

 $l(\omega, (x, y)) = \min\{0, 1 - y < \omega, x \gg \omega\}.$

$$S = \{x_1, x_2, x_3, \dots, x_n\}.$$
 (8)

(7)

Suppose the sample data set is:

Among them, $(\omega, (x, y))$ is:

$$p_i = P[X = x_i]. \tag{9}$$

Its probability density is:

$$I(x_i) = \log \frac{1}{p_i}.$$
 (10)

The self-information of a sample data point can be expressed as:

$$H(X) = \sum_{i} p_{i} \log \frac{1}{p_{i}} (i = 1, 2, 3, \dots, n).$$
(11)

The information entropy of this data set can be expressed as:

$$\sum \alpha_i y_i x_i \longrightarrow \omega \ (i \neq 0). \tag{12}$$

It is specified that $0 \log(0) = 0$. Information entropy is used to measure the amount of information. If the uncertainty is larger, the amount of information is larger and the

entropy is larger; if the uncertainty is smaller, the amount of information is smaller and the entropy is smaller.

The data repository should be comprehensive and complete. The system should be able to query, modify, and store basic information, as well as meet the users' original data. In comparison to previous systems, the system based on DM technology not only corrects most of these systems' flaws, but also strengthens the data information processing and analysis functions. Data processing speed and accuracy have greatly improved, and the processing results can now be sent to the intended destination on time and accurately. In this paper, the weight of each attribute feature is calculated using the entropy method, and the Euclidean distance between data points is calculated and clustered more finely by analysing the clustering contribution of each attribute in the process of data object clustering. The parallelism of data sets is improved through scanning, decomposition, and reduction, and the performance and data types applicable to different methods are compared with the specific applications.

4. Result Analysis and Discussion

School political thought education needs to realize the coordination and interaction among political thought education practitioners, students, and functional departments. Therefore, the political thought early-warning mechanism of campus emergencies is a complex system engineering, which needs to adopt the system engineering theory to sort out the logic and construct the information system. Hadoop module deployment of this model is shown in Table 1.

In order to verify the reliability and practicability of the political thought pre-alarm model of campus emergencies constructed in this paper, this chapter tests the actual working effect of the pre-alarm model and the actual effectiveness of training. In order to be universal and objective, Sklearn library based on Python kernel provided by GitHub open source platform is adopted. The convergence curves of objective functions of different algorithms are compared and analyzed, and the experimental results are shown in Figure 3.

It can be seen that the objective function of this algorithm converges quickly. In this paper, the user behavior data set and the user hidden interest point data set are processed by regression mapping, which improves the purity of the data set, reduces the redundancy of the data set, and improves the simulation efficiency. The algorithm is trained for many times, and the training results of different algorithms are shown in Figure 4.

According to the data analysis in Figure 4, with the increase of training times, the training error rates of the three algorithms are getting lower and lower. However, this algorithm converges quickly. With the increase of the number of training iterations, the root mean square error of training samples decreases, but there are local fluctuations. This is because the algorithm is constantly adjusting the network structure, thus affecting the root mean square error. Because it only conducts directional search for the current nearby location, the overall trend is that the error is constantly

Server side				
Master node server				
	Realizing centralised data storage management: cluster			
Function declaration				
	operation monitoring platform			
Operating system	Cent			
Application software	Hadoop platform software			
Hardware model	CPU: 32 cores	128G		
Local disk	2T	100M * 2		
Data node node server (10)				
	Store data and query the			
Function declaration	specific running nodes for execution			
Operating system	Cent			
Application software	Hadoop platform software			
Hardware model	CPU: 32 cores	128G		
Local disk	3T	100M * 2		

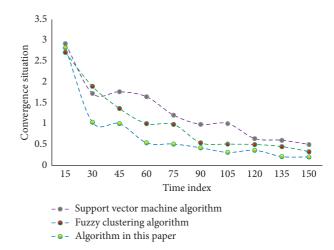
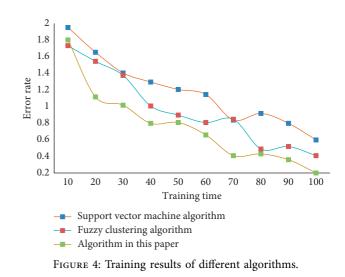


FIGURE 3: Comparison of convergence curves of objective functions.



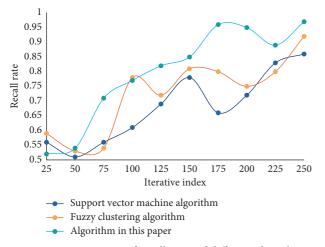


FIGURE 5: Comparison of recall rates of different algorithms.

decreasing. Figure 5 shows the recall rate comparison of different algorithms.

In order to improve the security of the model and ensure the information security of users, the model introduces a security mechanism. Based on the consideration of economy and practicability, the access control model commonly used in the field of software engineering is adopted to track and monitor the whole process of the system's login authentication, user management, role assignment, authority management, and information query. Figure 6 shows the safety test results of different models.

It can be seen that after the introduction of security mechanism, the security performance of this model is better. Its performance is better than the other two models. Carry out the classification accuracy experiment again. After five experiments, respectively, the classification accuracy of different algorithms is shown in Table 2.

According to the data in the table, the classification accuracy of this algorithm is higher than that of the other three algorithms. This result verifies the superior performance of this algorithm. At the same time, the effectiveness of this system is verified. The error rate reflects the accuracy of the prediction of training sample data by the network. It is also necessary to use the test sample, that is, the data of the sample that did not participate in the network training, to predict to test the prediction accuracy of the network. The prediction accuracy of different models is shown in Figure 7.

It can be seen from Figure 7 that the prediction accuracy of this model is high. The accuracy of the model can reach 94.68%, which is higher than the other two pre-alarm models. This result further verifies the effectiveness of this model, which can effectively warn the political thought education of campus emergencies. The results of many experiments in this chapter show that after the training of samples, the prediction accuracy of the network is as high as 94.68%, which is higher than the 9.17% accuracy of the traditional pre-alarm model. The political thought earlywarning model of campus emergencies based on DM technology is very inclusive for nonlinear data and missing

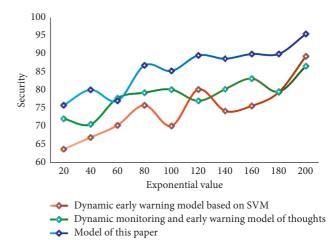


FIGURE 6: Safety test results of different models.

TABLE 2: Classification accuracy of different algorithms.

Algorithm	Number of experiments				
	1	2	3	4	5
Neural network algorithm	78.15	79.02	80.54	79.25	79.58
Support vector machine algorithm	83.68	86.55	85.63	86.14	85.47
Fuzzy clustering algorithm	90.16	91.34	90.87	90.06	91.93
Algorithm in this paper	96.57	95.46	95.87	96.71	96.08

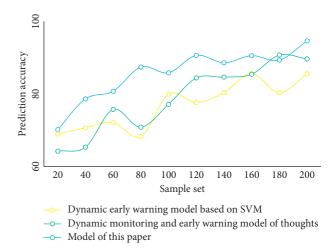


FIGURE 7: Prediction accuracy of different models.

data. Therefore, it can be concluded that this model has certain practicability and reliability, and can be applied to the political thought pre-alarm of campus emergencies.

5. Conclusions

The construction of a political thought education mechanism has made significant progress to date, but there are still many flaws in terms of effectiveness and long-term sustainability. In general, political thought education in research and practice in the field of mechanism needs to be improved and strengthened. The important mission of cultivating talents is carried out on every campus. Any unexpected events on campus will inevitably affect students' minds and bodies, as well as disrupt the school's normal teaching order, which is not conducive to the development of all talents. As a result, when a campus emergency occurs, we should be fully aware of the gravity of the situation and the likely consequences, and then implement a series of appropriate solutions to properly address the situation. Prealarming campus emergencies with effective political thought can help students cope better with the emergency situations. This paper examines the political thought prealarm model of campus emergencies in depth and constructs the corresponding pre-alarm model using DM technology. For nonlinear data and missing data, the political thought early-warning model of campus emergencies based on DM technology is very inclusive. The experimental results show that the network's prediction accuracy after sample training is as high as 94.68 percent, which is higher than the traditional pre-alarm model's 9.17 percent accuracy. This model is practical and reliable, and it can be used to predict political thought in the event of an emergency on campus. Furthermore, the pre-alarm model is theoretically applicable to the dynamic pre-alarm problem of high-dimensional coupled political thought education under any complex factor constraints, particularly for the dynamic pre-alarm problem of political thought education with a single user population, no coupling of internal constraints, and a large amount of collective data of users' interest points. Despite the fact that this research has some value and accomplishments, any research should not be stagnant. All kinds of new problems will emerge in campus emergencies as the times change and develop. This article will keep up with the times, update, and improve the pre-alarm model on a regular basis, and strive for the campus's harmonious and stable development.

Data Availability

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

Conflicts of Interest

The author does not have any possible conflicts of interest.

References

- K. L. Arekapudi, C. Norris, and S. Updegrove, "Improving self-efficacy of student asthma management in elementary and preschool staff:[J]," *The Journal of School Nursing*, vol. 37, no. 6, pp. 513–522, 2021.
- [2] V. Sugumaran, Z. Xu, and H. Zhou, Eds., Application of Intelligent Systems in Multi-Modal Information Analytics: 2021 International Conference on Multi-Modal Information Analytics (MMIA 2021), Springer Nature, vol. Volume 1, , 2021.
- [3] W. Zhu, "A new method for college students' ideological and political education mode and structure design based on

network cloud platform[J]," *Boletin Tecnico/Technical Bulletin*, vol. 55, no. 18, pp. 540–548, 2017.

- [4] S. Koch, J. Barkmann, M. Strack, L. Sundawati, and S Bogeholz, "Knowledge of Indonesian university students on the sustainable management of natural resources," *Sustain-ability*, vol. 5, no. 4, pp. 1443–1460, 2013.
- [5] L. Rueda, J. Benitez, and J. Braojos, "From traditional education technologies to student satisfaction in Management education: a theory of the role of social media applications," *Information & Management*, vol. 54, no. 8, pp. 1059–1071, 2017.
- [6] S. Ada, R. Sharman, W. Han, and J. A Brennan, "Factors impacting the intention to use emergency notification services in campus emergencies: an empirical investigation," *IEEE Transactions on Professional Communications*, vol. 59, no. 2, pp. 89–109, 2016.
- [7] R. Baer, R. Zarger, E. Ruiz, C. Noble, and S Weller, "Lockdown: applied anthropology and the study of campus emergencies," *Human Organization*, vol. 73, no. 4, pp. 326–339, 2014.
- [8] K. Kubicek, M. Ramirez, M. A. Limbos, and E Iverson, "Knowledge and behaviors of parents in planning for and dealing with emergencies," *Journal of Community Health*, vol. 33, no. 3, pp. 158–168, 2008.
- [9] T. Likki and C. Staerklé, "A typology of ideological attitudes towards social solidarity and social control," *Journal of Community & Applied Social Psychology*, vol. 24, no. 5, pp. 406–421, 2014.
- [10] L. Xu, X. Zhao, and H. Starkey, "Ideological and political education in Chinese Universities: structures and practices [J]," Asia Pacific Journal of Education, no. 4, pp. 1–13, 2021.
- [11] W. Tushar, C. Yuen, B. Chai et al., "Smart grid testbed for demand focused energy management in end user environments," *IEEE Wireless Communications*, vol. 23, no. 6, pp. 70–80, 2016.
- [12] Y. Guo, "The philosophy of science and technology in China: political and ideological influences," *Science & Education*, vol. 23, no. 9, pp. 1835–1844, 2014.
- [13] J. D. Troisi, "Making the grade and staying engaged: the influence of student management teams on student classroom outcomes[J]," *Teaching of Psychology*, vol. 41, no. 2, pp. 99–103, 2014.
- [14] R. Hirn, "The relationship between teachers' implementation of classroom management practices and student behavior in elementary school[J]," *Behavioral Disorders*, vol. 43, no. 2, pp. 302–315, 2018.
- [15] P. Luo, "Researches on ASP.NET-based education website development for ideological and political management of colleges and universities[J]," *Revista de la Facultad de Ingenieria*, vol. 32, no. 11, pp. 960–966, 2017.
- [16] M. O'Keefe, V. Wade, S. Mcallister, I. Stupans, and T. Burgess, "Improving management of student clinical placements: insights from activity theory," *BMC Medical Education*, vol. 16, no. 1, p. 219, 2016.
- [17] P. L. Schultz and J. Baker, "Teaching strategies to increase nursing student acceptance and management of unconscious bias," *Journal of Nursing Education*, vol. 56, no. 11, pp. 692–696, 2017.
- [18] J. Zhou, Z. Wei, F. Jia, and W. Li, "Course ideological and political teaching platform based on the fusion of multiple data and information in an intelligent environment," *Journal* of Sensors, vol. 2021, no. 9, pp. 1–10, 2021.
- [19] S. Wang, "Construction of mobile teaching platform for the ideological and political education course based on the

multimedia technology," International Journal of Emerging Technologies in Learning, vol. 12, no. 09, p. 156, 2017.

- [20] Z. Qu, "An optimization method and teaching innovation mechanism for college students political education based on network environment[J]," *Boletin Tecnico/Technical Bulletin*, vol. 55, no. 13, pp. 750–755, 2017.
- vol. 55, no. 13, pp. 750–755, 2017.
 [21] H. E. Ya-Ping, "Using the view of the socialism honor or disgrace guide the ideological education of the college students[J]," *Environmental Earth ences*, vol. 71, no. 1, pp. 85–97, 2014.