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Research Article

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Abstract:
Relying on the reform of the learning field curriculum system of ideological and political education courses in colleges and universities, the association rules between data mining and soft computing technology are used to mine the association relationship between the software professional courses of the department, and the ideas and methods of optimizing the course setting are proposed. There are several methods have been proposed to analyze the problems in the reform and construction of ideological and political education in colleges and universities, and propose improvements and optimization measures. The countermeasures to improve the effectiveness of the ideological and political education in universities is proposed to solve the timeliness problems of ideological and political education reform in colleges and universities. Here in which the 5G network can gets initialized. Then the input education details gets preprocessed and the clustering of the educational information by using the hybrid Fuzzy K-means approach. Then the features can gets extracted by using the Extensibility Ant component analysis. Then the impact was evaluated by using the mixed Ensemble approach. Then after checking the information viability it can be stored in the database for further analysis. Then the viable information can be send to the student ID through improved TCP protocol. The findings demonstrate that the mechanism presented exceeds the other algorithms examined, by expressing high accuracy especially concerning viable education information generation and transmission.

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1. INTRODUCTION

The number of students in the collage is expanding as the attendance ratio of colleges and universities expands, and the dispersion of scores obtained is getting increasingly complex. Conventional student scores can only give basic digital processing data like simple searches and statistics. It carries with it information. What influence does the relative order of almost any two programs have on studies on the success of political and ideological educational reforms, for example Which of the leading courses, if any, will have the biggest impact on the next class after it is
learned. The instructor must determine the relationship between the prior course and the following course using the same method as before, based on the student's grade distribution, and make course planning decisions appropriately. As a result, it is critical and practicable to identify the key laws or structures of courses hidden pattern using appropriate techniques in order to provide decision-making assistance. People's ideological and behavioral ideals have shifted as a result of society's rapid growth and major changes. This covers the detrimental consequences of globalization on people's moral ideals. University students are the most affected since they are in a vital period of steady improvement of their ideological and moral conceptions. University students are the foundation of human resource departments since they are high-knowledge organizations. Their ideology and moral standards have a direct impact on whether they succeed or fail. This has some exemplary and good implications for increasing people's general quality of life and constructing a peaceful socialist system.

The twenty-first century will be characterized by fast expansion. The channel's use has also spread beyond high-level, new, and complex scientific and technology disciplines to all facets of society, affecting households. With its benefits of simplicity, quickness, inclusivity, interactivity, and massive information, the networking has also been a representation of the "4th generation communication." However, this will not imply that new media has reached its limit because no new media will emerge. The introduction and worldwide applications of internet media, on the other hand, has given additional fuel to the development of multimedia technology. This is demonstrated by the creation and growth of most diverse and unique media in the "4th generation communication," specifically, streamed media. Network multimedia teaching has emerged as a new and essential educational paradigm in the education field as a result of the widespread introduction of the Internet and the progress of instructional media. It's a mix of networking and media education, as well as a mechanism enabling multimedia teaching to propagate across the network. One of the main purposes of campus network design is to use the network system or Network connection to develop multimedia teaching. The school's teaching techniques will be more varied, the educational model will be more sophisticated, and the campus will be larger as a result of the network instructional media. Numerous colleges and organizations are now researching and developing remote access teaching platforms, and many related products have been established. The majority of these network platforms for remote learning are in the format of "network online schools." Teaching content can be graphically shown in a variety of formats, including videos, sound, and electronically of course materials, using media streaming technologies. Multimedia computers can be accessed remotely by students. Following class, you can use apps like Star scream Multimodal Network Classroom, Seth Multimodal Networking Classroom, and I Class Media Networks Lecture hall to learn on your own time. Teacher creates course-related audiovisual courseware and submit it to the "net online course." Learners can study at any time by browsing online; if they don't understand something, they can leave a note on a non-real-time BBS in writing or voicemail. In order to more quickly identify the effects of learning and teaching, virtual online classrooms also can perform online assessments, professors can leave relevant assignments internet, and learners can practise and register scores throughout online learning. It also has the ability to control user authorizations. Colleges and universities are increasingly adopting this type of integrated "network virtual classroom."

Therefore, the main focus of this article is on the reform of the modern teaching system of ideological and political education in colleges and universities, as well as an examination of the educational system. This paper tries to build a structured methodology for the ideological education of college students and the evaluation of the education systems. Here in which the 5G network can get initialized. Then the input education details get preprocessed and the clustering of the educational information by using the hybrid Fuzzy K-means approach. Then the features can get extracted by using the Extensibility Ant component analysis. Then the impact was evaluated by using the mixed Ensemble approach. Then after checking the information viability it can be stored in the database for further analysis. Then the viable information can be send to the student ID through improved TCP protocol.
The remainder of this work is laid out as follows: The second section discusses similar work. Section 3 discusses the issues and challenges faced by university students' political and ideological learning in a 5G network. Section 4 discussed political and ideological education solutions for college students in a 5G network. The work is concluded in Section 5 and suggestions for future research.

2. RELATED WORK

Alternative strategies for improving ideological and political education at universities include experience summaries, theoretical analyses and empirical research; the idea of constructing a “final three environmental” ideological and political education system for universities and colleges is suggested [1]. It summarises and reflects on current political and ideological Chinese universities, exposes the real relevance of cultivating educators' based on culture self-confidence through curriculum setting, analyses the significance among college English language curriculum setting and political or ideological schooling, and recommends a path going to plan to improve significance [2]. [3] The AI-IPL technique is used to help college students develop their intellectual and political views while also providing them with physical and emotional support. As a result of the AI-IPL technique, there are differences of opinion among certain students, and these differences define the IPL of the ultimate inclination toward new strategy and psychological education approach. [4] The examination of highly cited articles clarifies the key points of study in this area. To better understand the research process in China's professional ethics education area, this article analyses phrase co-occurrence to uncover the most pressing problems and time zone distributions to expose the field's historical background. To bridge one crisis to the next, recovery is a critical step in capital formation. Neoliberal reformers use crises to push privatisation as a means of restoring the economy. Neoliberals place the burden of recovery on schools, instructors, and students instead of owning up to their role in generating crises. There is a strong appeal in this article for social justice activists, critical educators, and communities that have experienced crises to reject neoliberal notions of recovery and assert the collective power to end capitalism's inextricable cycle of crises and recoveries. [5, 6] This paper advances technology in the way of thinking, method of supervision, and educational mode of thought, emphasising the role of ideological and political education workers in increasing data knowledge, improving the way of thinking, fully grasping big data analysis techniques, preparing for the big data era, groping in political and ideological schooling of law, and enhancing the quality of ideology and Continuously improving their overall quality and professional skillset, they have been the driving force behind China's economic and social growth. There is an urgent need to address the theoretical and instructional needs for improving teaching practice in the present curriculum and reformation of political and ideological programs at colleges and universities. The use of computers and the internet in learning and practice has grown in popularity. Depending on constructivist theory, [7] this article utilises computer-assisted political and ideological education services to expand avenues for political and ideological training and to support its productive and resilient growth. [8] a) The virtualisation platform supports appears normal migration of virtual servers, which is critical for the virtualisation platform's highly available. b) The cloud computing simulation platform's primary purpose is to conduct fundamental correlation studies and so on. c) Through the incorporation of a supercomputing framework, the online guidance system is optimised. [9] This article offers a technique of interactive information processing in several modes for use in an online education system for ideological and political courses. We organise and conduct online learning courses using live broadcasting and communication processes, and we knowledge about the world and practise online live broadcasting, internet question answering, discussion groups, bullet display interaction, real-time communication, as well as other teaching methods in order to achieve a genuine and effective educational impact. [10] Students and teachers collaborate in the Political and Ideological Theory Section of the course omni-directional classroom instruction, thus strengthening theory learning, researching education, practise education, and networking education. JSP Has Been Increasingly Widely Used in All Types of JSP Applications as an Excellent Dynamic Web Page Programming Language.

3. PROPOSED METHODOLOGY

The proposed methodology for college students' ideological education and the assessment of educational systems. The initialization of the 5G network can be done here. The input educational data are then preprocessed, and the
educational information is clustered using a hybrid Fuzzy K-means technique. Then, using the Extensibility Ant component analysis, the features may be retrieved. After that, the impact was assessed using a mixed Ensemble technique. The information can then be retained in the database for subsequent study after it has been checked for viability. Then, using an upgraded TCP protocol, the viable information may be sent to the student ID. The schematic representation of the suggested methodology shown in figure 1.
a. Data Processing

The incoming data is unprocessed and may include duplicate packets and partial data. It has been cleaned and highly processed to eliminate repeated and duplicate occurrences, as well as missing data. Because the databases for the educational system are so large, sample reduced size techniques must be employed. Due to the large number of features in this dataset, extracting features techniques are needed to eliminate irrelevant characteristics. The information may be normalized during the pre-processing step. The first stage of the normalizing process generates the s-score, which is defined by equation (1).

\[ S = [(Rs - \delta )/\omega ] \] (1)

Here, \( \delta \) - mean data

\( \omega \) - Standard

S is written as,

\[ S = \frac{Rs - \bar{Rs}}{SSD} \] (2)

Here \( \bar{Rs} \) - mean sample,

SSD - the sample standard deviation.

The randomized sample is composed of,

\[ S_i = \beta_0 + \beta_1 Rs_i + \varepsilon o_i \] (3)

Here \( \varepsilon o_i \) - the error based \( \omega^2 \)

After that, the mistakes must be independent of one another, as specified follows.
Here \( r \) is a random variable.

Following that, the standard deviation is used to standardize the variable's changes.

The moment scaling deviation is estimated using the formula following.

\[
MSD = \frac{m_{sc}}{\phi_{msc}}
\]  

(5)

Here \( m_{sc} \) - Moment scaling.

\[
\lambda_{msc} = \text{Exp} (R_i - \alpha)^{MSC}
\]  

(6)

Here \( R_i \) - Random Variable

\( \text{Exp} \) - Expected value.

\[
\phi_{ms} = (\sqrt{\text{Exp} (R_i - \alpha)^{MSC}})^2
\]  

(7)

\[
\tau_c = \frac{m_{sc}}{R_i}
\]  

(8)

Here \( \tau_c \) - the Variance of coefficient.

By setting all variables to 0 or 1, the process of feature scaling is stopped. This is referred to as the unison-based normalizing procedure. The following is how the normalized equation would be expressed:

\[
R_i' = \frac{(r - r_{min})}{(r_{max} - r_{min})}
\]  

(9)

Once the input has been normalized, the range and inconsistency of the data may stay constant. This phase's objective is to minimize or eliminate data latency. The normalized data may then be used as an input to subsequent steps.

b. Clustering using hybrid Fuzzy K-means approach.

The data mining approach i.e. hybrid Fuzzy K-means clustering is best suitable for the chosen dataset and is better than any other data mining approach because the college students’ interactional behavior is heterogeneous in nature so it is necessary to form tighter clusters of students with similar interactional characteristics. In clustering, n samples are divided into k categories, where each input attribute belongs to one cluster and it may not be a part of other clusters. When the teacher evaluates the students, he can set up and complete the clustering based on the excavated information.

The following steps are carried out for K-means clustering.

1. Initialize starting condition by defining the number of clusters and randomly select the initial cluster centers. Euclidean distance is used to observe the distance between the attributes,
where a, b are the two points in Euclidian space and d represents distance

2. Generate a new partition by assigning each data point to the nearest cluster center.

3. Recalculate the centers for clusters receiving new data points and for clusters losing data points.

4. Repeat the steps 2 and 3 until a distance convergence criterion is met.

c. Feature extraction

In order to determine which feature extraction method can improve clustering on 5G network connection data. Feature extraction method extracting new features from original dataset, and it is very beneficial when we want to decrease the number of resources required for processing without missing relevant feature dataset. Feature extraction can also decrease the number of additional features for an offered study. Feature extraction produces a remarkable transformation of first features to create more significant features. Feature extraction is a process for creating new features that depend on the original input feature set to decrease the high dimensionality of the feature vector. The transformation method is done by algebraic transformation, and according to some optimization criteria Also, feature extraction has the ability to handle essential information during dealing with high dimensional issues. These dimensionality reduction techniques aim to not lose a large amount of information during the feature transformation process by conserving the original relative distance between features and cover the original data potential structure.

d. Improved TCP protocol Algorithm.

The framework as a learning system is the direction of intellectual and social workers in the teaching practices adopted. It is a critical aspect of the ideas, hypotheses, and the technical directions of IPL, including extreme social, academic concepts. The framework is the experts of theoretical and political education theories to produce improvements of thought, actions, and expression. The education governance framework is divided into knowledge-based reasoning, political education framework, and instrumental ideological framework. The framework of administration and the model of observation is represented as S1 and S2. The resemblance between the database of the college students in the IPL is shown in the following equation:

\[ R = \frac{2m(S_1 + S_2)}{m(S_1) + m(S_2)} \]  \hspace{1cm} (1)

Here, \( m \) denotes the number of the module, and \( R \) is the resemblance between the database of college students. The data distribution between the IPL is shown in the following equation:

\[ D = R_i \times (K + L \times m) \times m(S_1) \times m(S_2). \]  \hspace{1cm} (2)

Here, \( K \) is the role of human interest, and \( L \) sense of tasks has blurred in an educational system, ideological and political education as a way of supplying countries in need of liberation, as opposed to the essence of IPL. The knowledge-based framework of ideological and political learning is an academic framework which correlates with defining the
unreasonable development of a wisdom-based economy, which has lost its fundamental position in the learning in life, and it is shown in the following equation:

\[ R_s = \alpha_j (m, R_1 + R_2, m_{n-1} + R_3 m_{n-1} + R_2). \]  

the system is applied to the teaching of political and ideological courses in a freshman class at universities, to further clarify its application effect. there are 53 students in this class, and the ideological and political course conducted is *ideological and moral foundation and legal cultivation*. in the teaching of this course in this class, the traditional teaching methods and the one using computer simulation system for ideological and political teaching are adopted in this study. then, a questionnaire survey is used to count the attitudes towards political and ideological courses of students and their mastery of ideological and political knowledge. the questionnaires used in this study are analyzed from the students’ attitudes towards political and ideological courses, the degree of satisfaction with classroom teaching, the acceptance of political and ideological courses, and their own learning situation. there are 4 question options for each part, and liker's five-point scoring method is adopted. the higher the score, the higher the acceptance to political and ideological courses, based on which the application of computer simulation system for political and ideological teaching can be judged.

4. Result and discussion

![Graph](image_url)

Figure 2. The system's highest response time while serving the most concurrent users.

The operation of the system when all users log in to the system (Figure 2, 3, 4, 5, and 6). It reveals that when the number of users gradually rises from 10 to 500, the ideological and political teaching system can normally display the PPT uploader, upload time, and the course content.
Figure 3. a,b,c,d Questionnaire score for Improved TCP teaching system

Figure 4. Median scores and disparities in the four aspects of Political and Ideological teaching statistics.

Figure 5. The impact of the Political and Ideological method in practise.
5. Conclusion

This study focuses on the reform of Political and Ideological teaching and tests the performances and functions of the constructed system. At the same time, a questionnaire analysis method is used to evaluate the improved TCP for Political and Ideological teaching. The political and ideological courses courseware management function, online discussion function, and classroom feedback management function of the constructed system can be used normally on both the teacher terminal and the student terminal. In addition, the application effect of the system in actual teaching is relatively good. In the questionnaire analysis score, the score of the political and ideological teaching model using the proposed system is 0.76 points higher than the score using the traditional method, so the Improved TCP based on the proposed system can effectively better the students’ attitudes towards political and ideological courses, improve the degree of satisfaction and acceptance of classroom teaching, and promote the mastery of ideological and political knowledge. This paper contributes to the intelligent development of ideological and political classroom teaching and has high practical application value and significance.

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