

Retraction

Retracted: Evaluation of College Students' Ideological and Political Education Management Based on Wireless Network and Artificial Intelligence with Big Data Technology

Security and Communication Networks

Received 18 July 2023; Accepted 18 July 2023; Published 19 July 2023

Copyright © 2023 Security and Communication Networks. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

This article has been retracted by Hindawi following an investigation undertaken by the publisher [1].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.

In addition, our investigation has also shown that one or more of the following human-subject reporting requirements has not been met in this article: ethical approval by an Institutional Review Board (IRB) committee or equivalent, patient/participant consent to participate, and/or agreement to publish patient/participant details (where relevant).

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. Qin, Y. Wang, Q. Zhao, L. Tan, and Y. Luo, "Evaluation of College Students' Ideological and Political Education Management Based on Wireless Network and Artificial Intelligence with Big Data Technology," *Security and Communication Networks*, vol. 2022, Article ID 5802525, 9 pages, 2022.

Research Article

Evaluation of College Students' Ideological and Political Education Management Based on Wireless Network and Artificial Intelligence with Big Data Technology

Junnan Qin ¹, Yihan Wang,² Qing Zhao,¹ Liheng Tan,¹ and Yaqi Luo¹

¹Art Education Center, Tianjin University, JinNan 300350, TianJin, China

²College of Management and Economics, Tianjin University, NanKai 300073, TianJin, China

Correspondence should be addressed to Junnan Qin; junnan.qin@tju.edu.cn

Received 9 March 2022; Revised 1 April 2022; Accepted 4 April 2022; Published 19 May 2022

Academic Editor: Muhammad Arif

Copyright © 2022 Junnan Qin et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

The construction of a correct worldview, outlook on life, and values for students is linked to the development and breakthrough in the management of ideological as well as political education of students. At the same time, college students must be encouraged to follow well-rounded education and struggle to be well-prepared for the challenges of the new era. In order to raise students' understanding of the critical role that political and ideological education plays in their academic success, it is authoritative that efforts to integrate these two spheres of learning be extended and new encounters made. That's what prompted this study, which is focused on assessing college students' level of ideological and political education administration, and it uses a mixture of big data technologies as well as artificial intelligence (AI) to do it. The accuracy of the traditional ideological as well as political education management quality assessment algorithm is not high, feature information extracted by the single-scale neural network (NN) is not rich enough, and the multiscale convolutional network (CN) fusion cannot consider the different values and importance for each scale. In this paper, the convolution kernel of the two-dimensional CN is changed to a one-dimensional convolution kernel, and the multiscale feature fusion CN model MCNN is first designed. The model is optimized and improved, the attention mechanism is integrated, and the MACNN model for the management evaluation of ideological as well as political education is proposed. Besides, this work organizes the network model in a wireless network environment that users can contact and operate at any time.

1. Introduction

For national construction and the future of the homeland, college students are a very precious talent resource. As a result, enhancing college students' intellectual as well as political education is of enormous strategic importance to country. In recent years, students' work on ideological as well as political education at colleges has achieved significant progress and shown clear results, thanks to the high level of governmental attention and the correct leadership that leaders and workers in this field have put in long hours. The political and ideological positions of college students are strong, and they represent a generation that can be trusted, is capable of taking on big responsibilities, and is full of potential. However, even if we fully affirm the achievements of ideological as well as political education in colleges, we must

recognize that actual effect of ideological as well as political education in colleges and universities is still not ideal due to some historical reasons and other constraints. We must also acknowledge that some college students have issues with political beliefs, values, and social duties that cannot be ignored [1–5].

To ensure that social organizations can achieve their desired outcomes, some spiritual resources should be transformed into tremendous spiritual power. The management role of ideological as well as political education is based on it. To put it another way, ideological as well as political education plays a vital role with society's ability to achieve its goals. As a result, modern management theory is utilized to standardize and pragmatically organize, plan, command, coordinate, and govern college students' ideological and political education [6–10].

Management is a means of intellectual and political teaching. Management without intellectual and political education is as weak as education without these two pillars. Find out what college students need to know about ideologies and politics and how to make good decisions in a team environment while also learning about effective management techniques. It is of the enormous theoretical value for the theory of ideological and political education management for new circumstances and for strengthening and improving ideological and political education. Many colleges now offer a variety of student organizations that enrich college students' lives by organizing events, broadening their areas of interest, and providing opportunities for them to improve their skills in their chosen activities. All of this relies on sound theoretical direction, which can be found in studies on the management career of students' ideological as well as political education [11–15].

In this context, it is critical to assess college students' ideological as well as political education management, which can help the government or schools to make timely policy modifications. A NN for assessing the quality of ideological and political education management is the starting point for this effort. Use big data to gather datasets to train the network after it is built. Once the training is complete, the network model can be accessed at any time by the users on the remote wireless network.

As a result of management prominence, economic and cultural functions have expanded in importance. Many institutions today provide a wide range of student clubs that enrich college students' lives by arranging events, widening their interests, and allowing them to improve their skills in their chosen hobbies. It primarily targets the traditional evaluation technology algorithms, which rely significantly on evaluation systems and have a low accuracy rate. The features retrieved by a single NN are insufficiently rich, and multiscale CN fusion ignores the problem's importance.

The paper arrangements are as follows: Section 2 defines the work of ideological education administrators, and the work should be inclusive and energetic. Section 3 evaluates the Evaluation Network of Ideological and Political Education Management and Section 3 proposes the different subsections. The subsection on motivation discussed the importance of each network being learned. The conventional NN inspired the convolution procedure and the receptors in the animal visual cortex. The Single-Scale Network for Management Education Evaluation describes the two-dimensional structure for image recognition. The multiscale network used to improve the robustness of the model. The combination of the evaluation model and wireless network has also received extensive attention and development. Section 4 collects the different data and then applies the experiments, and the comparison of collection between different data sets. Section 5 concludes the article.

2. Related Work

Literature [16] proposes that ideological education management has the characteristics of being comprehensive, democratic, dynamic, and diverse, instilling the consciousness of

the ruling class in social members, and directly safeguarding the social ruling power in the ideological field. The ideological education administrators shall exert the spirit of democracy, the style of work, and the methods of democracy from beginning to end. Constrained by social, political, economic, cultural, and other characteristics, it is constantly developing and changing with the times. Literature [17] proposes that the ideological and political activity is classified as the publicity and education components, but the management job belongs to the administrative organization element of the task. A single political ideology or educational outlook is no longer the voice of ideological and political development from traditional theory to modern theory. Economic and cultural roles have grown in importance as a result of management's prominence. Ideological and political labor is the means by which truth is communicated to the public [18]. In essence, the purpose is to fulfill the desired ideological and political education goals that are set forth. Educators intend to organize, coordinate, oversee, and carry out various practical tasks in order to support the development of educational objects' ideological, political, and moral character in accordance with particular management principles. To achieve and improve the dynamic whole procedure of ideological education system efficacy, the main body of management in the ideological education organization should be ideological education management based on scientific decision-making in the planning, organization, control, and evaluation of ideological education, according to the literature [19, 20].

Ideological as well as political education management, according to literature [21], refers to a specific social and political organization or a specific political interest group, which consciously adjusts various relationships and resources within and outside the ideological and political education system in accordance with its stated purpose. According to the literature [22], the management of ideological as well as political education entails tasks such as scientific planning, command, coordination, and monitoring. It is an integral aspect of political and intellectual education, running through every step of the way. To varying degrees, college students' ideological and political education management modes place an emphasis on intellectual rather than moral education, on the humanities rather than other majors, and on education over other majors. To different degrees, several colleges and universities continue to use antiquated management principles and procedures that have little or no impact on student learning outcomes. According to literature [23], certain institutions' control over ideological and political education has eroded, resulting in a disconnection between students' thought and real life. Literature [24] shows that environmental conditions, work process factors, and the backwardness of management practices put ideological as well as political education management in bottleneck period and prevent it from progressing. It can only progress if it is constantly exposed to new concepts and approaches. For example, a review of literature [25] found that the current ideological education management of the college students is focused on pursuing vigor in form rather than focusing on how it affects students' lives and their capacity to discriminate between different viewpoints.

Literature [26] found the management structure is not perfectly constructed, and the necessary communication and coordination within it are absent, as well as softness phenomena in the management team. To a certain extent, management evaluation is a formality in the process. According to the literature, college students' party members' education and management are not perfect, relevant, effective, and efficient enough [27]. The literature also points out that college students' party members' education and management are consistently inadequate. Research [28] proposes that emphasizing a management style that is people-centered and personalized to the needs of each employee is a good idea. Student self-management, self-improvement, and self-improvement are not rare in schools. The students' growth concept is based on all-round development. Mechanical scriptures should be discarded in favor of cultivating and improving ideological and political education and leadership in real life.

3. Evaluation Network of Ideological and Political Education Management

Here we have discussed the convolutional NN for data abstraction features and material. The reputation of each network is learned, and the consistent weight of the multiscale CN and its weighted summation are used to find the inclusive feature output, and a multiscale CN with consideration mechanism is created for the management assessment.

3.1. Motivation. First, single-scale convolutional NN is not rich enough for data extraction feature information, and multiscale convolutional NN fusion cannot consider different values and importance of feature data at scale. The use of multiscale CNs have not yet been widely discussed. Ideological as well as political education management evaluations necessitate a multiscale CN that can be easily constructed.

This work uses a deep learning end-to-end plan for training classification in light of the above-mentioned issues in order to avoid manual feature extraction. Deep learning is an algorithm that relies on data. Ideological as well as political education data is gathered using big data technologies, which can be trained using deep learning algorithms. This work proposes a network structure suitable for ideological as well as political education management data. Draw on idea for network compression, reduce parameters, design a multiscale convolutional NN, learn diverse scale features, increase the robustness of the model. Considering the fusion stage, no importance judgment is made for each scale network. This paper draws on the attention mechanism to score a given multiscale CN, and normalizes it through the softmax function, so that the sum of the weights corresponding to all input multiscale CNs are 1. Different weights indicate that the attention distribution model assigns the attention sizes corresponding to different scales of the CN. The importance of each network is learned, and the corresponding weight of

the multiscale CN and its weighted summation are used to obtain the comprehensive feature output, and a multiscale CN with attention mechanism is constructed for the management evaluation. The NN is deployed in wireless network environment, and the API interface is provided externally.

3.2. Convolutional Neural Network (CNN). The animal visual cortex inspired the convolution procedure, and the receptors in the animal visual cortex will process and upload the nerve impulses received by the neurons attached to the nerve center. Similarly, the convolution kernel in the convolution layer scans the local area of the input data regularly, and after processing, a set of features is obtained and sent to the next layer of the network. Compared with traditional NNs, the two most vital improvements of convolutional layers are weight sharing and sparse connections. When batch processing input data, the sharing of weights between layers allows each convolution kernel to extract the same feature information for different input data, which will not change owing to changes in input data. Sparse connections are inspired by the way humans observe local features first and then global features. The convolution kernel only perceives the local information of the input matrix and obtains the global information by fusing the local information. These two improvements greatly reduce the number of parameters of the network, improve the calculation speed, reduce the calculation time, and avoid overfitting caused by too many parameters. When the convolution kernel is working, it will achieve element-wise multiplication and summation of the input matrix in the approachable field, superimpose the deviation, and then move the convolution kernel with the step size until all areas of the input signal are calculated. The specific convolution operation formula is:

$$x_j = k_j^i * x_{j-1} + b_j^i. \quad (1)$$

The activation function is also called the nonlinear operation, that is, nonlinear activation of the output data. It maps the output value of the original linear inseparable convolution layer to another space, enhances the nonlinear expression ability of the entire network, and digs out the hidden features behind the data. Otherwise, the output of the network will be linearly inseparable. The purpose of the activation function is to convert the linear model into a nonlinear model, enhance the expressive ability of the model, and enable the network to simulate more subtle changes. Common activation functions in NNs are the Sigmoid function, Tanh, and ReLU and their various variants:

$$\text{Sigmoid}(x) = \frac{1}{(1 + e^{-x})},$$

$$\text{Tanh}(x) = \frac{(e^x - e^{-x})}{(e^x + e^{-x})}, \quad (2)$$

$$\text{ReLU}(x) = \max(0, x).$$

The pooling layer, also known as the down-sampling layer, is used to lower the parameters of the NN and has translation invariance. It performs secondary feature extraction on the data output by the convolution layer to achieve the purpose of reducing the feature dimension and reducing the amount of computational data. Commonly used pooling functions include average pooling and max pooling.

Deep learning can be considered as the process of extracting features layer by layer. When the network model is shallow, the data between the upper and lower layers generally does not have a large difference. When the network model is deep, the data between layers are prone to large fluctuations. During the training process of the network, the upper-layer input data distribution is constantly changing, which requires the lower-layer network to continuously learn new data distributions, which makes the entire training process very complicated and slow. Therefore, in order to reduce the variance of data change between different levels and ensure the stability of data when designing the network, a batch normalization layer (BN) will be added after the activation layer. Batch normalization can effectively speed up the training process of the model and improve the recognition accuracy of the model. The main operation of normalization is to subtract the mean of the input data to the layer and divide it by the standard deviation of the input data. However, normalizing all the input data in each layer will make the calculation amount too large. Therefore, with the help of the idea of the minimum batch gradient descent method, batch normalization and batch components are used to normalize the data. The formula for calculating the mean value of the input data by the BN layer is:

$$\mu_B = \frac{1}{N} \sum_{i=1}^N x_i. \quad (3)$$

The formula for calculating the variance of the input data received by the BN layer is:

$$\sigma_B^2 = \frac{1}{N} \sum_{i=1}^N (x_i - \mu_B)^2. \quad (4)$$

The BN layer normalizes the input data according to the following formula:

$$x'_i = \frac{(x_i - \mu_B)}{\left(\sqrt{\sigma_B^2 + \varepsilon}\right)}. \quad (5)$$

The role of the fully connected layer is to integrate the features extracted by the convolutional layer and the pooling layer in the CNN into global features and perform feature extraction and classification recognition again. The specific method compares the output feature map of the last convolutional layer or pooling layer set in the CNN structure into a one-dimensional feature vector and uses the one-dimensional feature vector as the input of the fully connected layer. Then further features are extracted, and finally, the output of the fully connected layer is connected with the softmax classifier to complete the classification task of the target sample.

Dropout is a technique to prevent overfitting, which is divided into weight dropout and neuron dropout. Weight Dropout selects some weights in the neural layer weight matrix to inactivate them, while neuron dropout selects some neurons in the neural layer to inactivate them. In this way, the connection between neuron nodes can be weakened, the generalization ability of the model can be improved, and the problem of overfitting can be alleviated.

3.3. Single-Scale Network for Management Education Evaluation. Generally, CNNs are designed as two-dimensional structures for image recognition. At present, many scholars have used one-dimensional convolution in data classification, and one-dimensional convolutional NN is also applicable in the management evaluation of college students' ideological and political education. This paper studies the characteristic data of ideological and political education management. In this work, the characteristic length of a single sample is set at 10. For these kind of data, it is undoubtedly a difficult problem to directly convert it into image recognition. If it is converted into an image, because the converted image is too small and difficult to train, and even if the data processed in this experiment are used, it is still a small image, so this method is not used in this paper.

For the characteristic data of ideological and political education management of college students, according to the common practice, it is necessary to adjust the two-dimensional CN. Therefore, the convolution kernel is changed to a one-dimensional convolution kernel, the filter of the pooling layer is correspondingly changed to a one-dimensional one, and a large convolution kernel is used at the same time. In this regard, the following convolutional NN structure is designed in this paper, and the specific structure is shown in Figure 1. In order to distinguish, its structure is recorded as SCNN here.

The structure designed in this paper is a convolution of 7 convolutional layers, and the "×2" in the line indicates that this module is repeated twice. 1D indicates that a two-dimensional CN is used, a one-dimensional convolution kernel is used, and Conv1 indicates the first layer of convolution. BN indicates that Batch Normalization is used here, and ReLU indicates the activation function used here. Avg_pool shows that the average pooling operation is used, dropout designates that this technology is used here, FC indicates the fully connected layer, and finally uses Softmax to output the type. The specific description and parameters are shown in Table 1.

You can see that the base model uses a large number of BN layers to normalize each input feature. This allows the model to generate more stable data distribution and train faster.

3.4. MultiScale Network for Management Education Evaluation. To further improve the effect, improve the robustness of the model, and reduce the training parameters, the model in this paper draws on the idea of inception

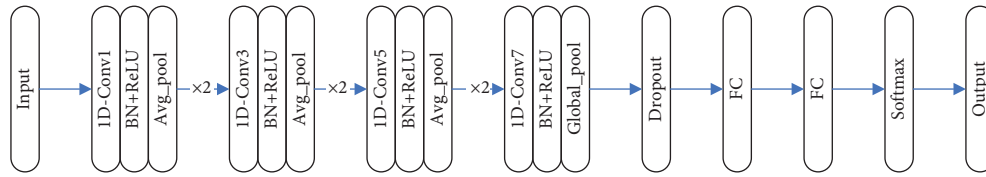


FIGURE 1: The structure of SCNN.

TABLE 1: The detailed information of SCNN.

Layer	Parameter
1D-Conv1	$1 \times 25 \times 32$
Avg_pool1	1×3
1D-Conv2	$1 \times 25 \times 32$
Avg_pool1	1×3
1D-Conv3	$1 \times 7 \times 32$
Avg_pool1	1×3
1D-Conv4	$1 \times 7 \times 32$
Avg_pool1	1×2
1D-Conv5	$1 \times 5 \times 64$
Avg_pool1	1×3
1D-Conv6	$1 \times 5 \times 128$
Avg_pool6	1×3
1D-Conv7	$1 \times 5 \times 256$
Global_pool7	—
FC8	100
FC9	10
Softmax	10

network structure and the idea of compressing the network. This paper designs a multiscale convolutional NN (MCNN) suitable for feature data. The model structure is shown in Figure 2.

The model is mainly divided into five parts: the input layer, the compression layer, the multiscale convolution feature extraction layer, the fusion splicing layer, and classification. The compression layer draws on the idea of the compression network here, but this paper uses a large convolution kernel. Compared with the direct three parallel networks, the effect is actually to reduce the amount of parameters. In the feature extraction layer, the three convolution kernels used here are of different sizes, and their main function is to extract different levels of features under different receptive fields. Finally, the characteristics retrieved at each scale are pooled and spliced for classification using the Softmax algorithm.

3.5. MultiScale Network with Attention for Management Education Evaluation. The features extracted by multiscale CNNs have different values for the evaluation of college students' ideological and political education. The above methods only simply stack the obtained features for evaluation and do not consider the influence of different weights of multiscale features on the evaluation. How to effectively fuse multiscale features is very important. Therefore, in order to avoid the complex manual feature extraction process and improve the accuracy of the evaluation of college students' ideological and political education management. Distinct convolution kernel sizes are used in this paper to provide different fields of

vision; thus, the learned information may differ. The multiscale network in the previous section is improved, and a multiscale evaluation method based on the attention mechanism is proposed. The multiscale convolution kernel is used to extract features from the data, and then the attention mechanism is used to calculate the weights of different scales, and then, the weighted comprehensive features are obtained. Finally, the Softmax function is used to realize the evaluation and classification. Therefore, this paper proposes an evaluation model of multiscale CN based on the attention mechanism in the management of ideological and political education of college students, which is referred to MACNN.

The structure of the model proposed in this paper is shown in Figure 3. It is mainly divided into five parts: the input layer, the compression layer, the feature extraction layer, the attention mechanism fusion layer, and classification.

The difference from the previous section is that the multiscale feature fusion of CNNs in this section draws on the idea of the attention mechanism.

3.6. Combination of Evaluation Model and Wireless Network.

With the transformational development of computer technology, wireless network technology has also received extensive attention and development, and more and more advanced technologies are closely integrated with wireless networks. In this work, the wireless network is combined with the ideological and political education management of college students, and the evaluation model designed in the previous article is deployed in the remote wireless network server. In addition, the system includes comparable API interfaces to ease users' actual access, allowing businesses or people to analyze the ideological and political education management of college students in real-time. The system structure is shown in Figure 4.

The workflow of the entire system is as follows. First, the user sends a request for evaluation through the API and uploads feature data at the same time. After that, the NN model deployed in the wireless network is responsible for processing the received characteristic data to evaluate the corresponding research quality of the ideological and political education of college students. Finally, the evaluation results are returned to the end user through the API.

4. Experiment

This section proposes the big data technique for attaining the training and different data test. It is strongly related to college students' ideological and political education management.

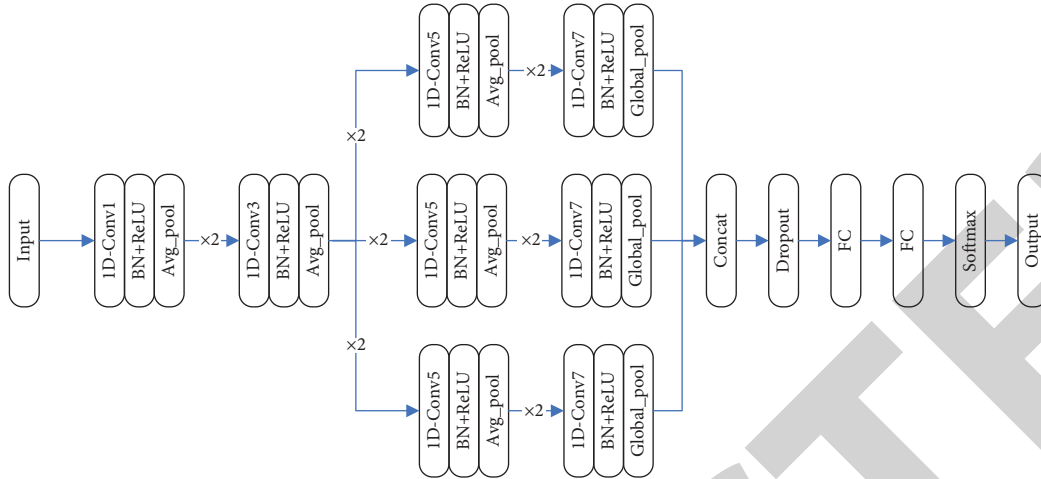


FIGURE 2: The structure of MCNN.

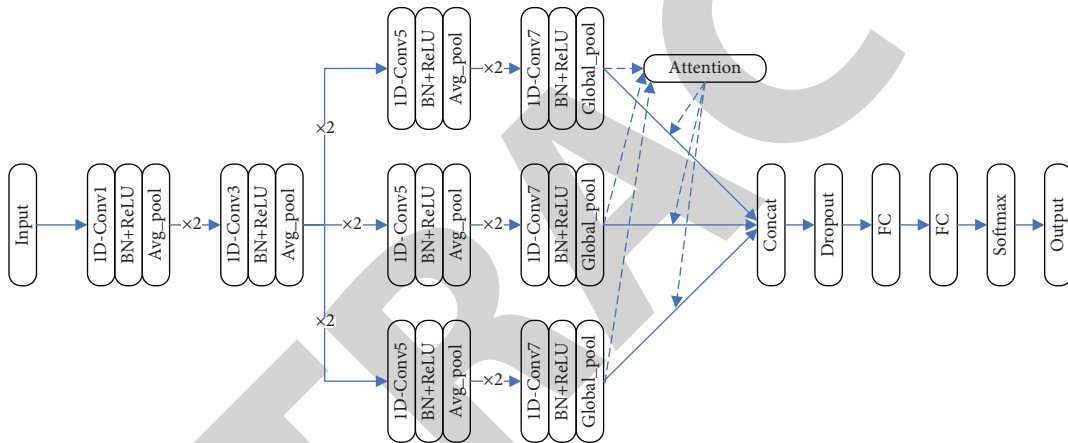


FIGURE 3: The structure of MACNN.

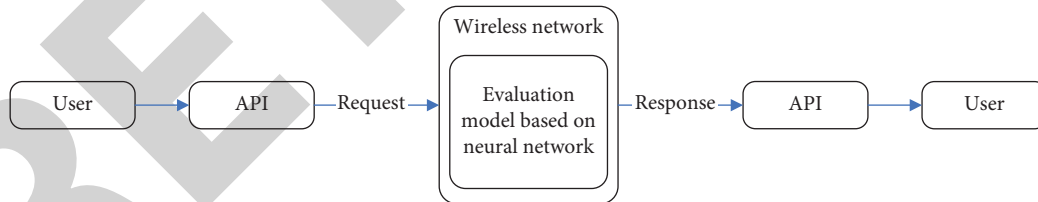


FIGURE 4: The structure of designed system.

Then, estimate the model performance and compare it with other models.

4.1. Dataset and Details. This research uses big data technique to obtain the necessary training and test sets for the NN training and model evaluation. There are 98349 samples in the training set and 39271 samples in the test set. The input of each sample is a feature vector containing 10 indicators, which is closely related to the ideological and political education management of college students. The specific indicators are shown in Table 2. The label of each sample is a 10-level quality evaluation result.

To facilitate the input of this feature data into the NN, it needs to be dimensionally expanded. In this work, the evaluation metrics used are precision and recall.

4.2. Comparison of Evaluation Method. To verify the reliability of the MACNN method designed in this paper, this work first compares it with other methods. The compared methods include BP, SVM, 1D-CNN, and 1D-ResNet, and the experimental results are shown in Table 3.

Compared with other methods, the MACNN method designed in this work can achieve the best performance: 95.2% precision and 93.6% recall rate. Compared with the

TABLE 2: The detailed information of evaluation index.

Index	Specific meaning
X1	Management goals are specific
X2	Management execution is powerful
X3	Management methods are diverse
X4	Management mechanism is sound
X5	Management resource allocation is reasonable
X6	Management team is high level
X7	Management restraint mechanism is reasonable
X8	Management system is coordinated
X9	Management is networked
X10	Management training is complete

TABLE 3: Comparison of evaluation method.

Method	Precision	Recall
BP	82.90	80.201
SVM	88.61	85.300
1D-CNN	91.22	87.803
1D-ResNet	93.70	91.305
MACNN	95.21	93.601

best methods listed in the table, 1.5% precision improvement and 2.3% recall improvement can be obtained, respectively. This verifies the effectiveness and correctness of the MACNN method.

4.3. Evaluation on Dropout Strategy. This work uses the dropout strategy in the NN. This paper conducts relevant comparative studies to verify the efficacy of this strategy (Figure 5).

Compared with not using the dropout strategy, after using this strategy, the precision and recall improved by 1.3% and 1.4%, respectively. This verifies the correctness of using the dropout strategy in this work.

4.4. Evaluation on the BN. This work uses the BN strategy in the NN. To verify the effectiveness of this method, this work conducts corresponding comparative experiments. It compares the evaluation performance without BN and when the BN is used, and the experimental results are shown in Figure 6.

Compared with not using the BN strategy, after using this strategy, the precision and recall are improved by 1.2% and 1.0%, respectively. This verifies the correctness of using the BN strategy in this work.

4.5. Evaluation on Multiscale Feature Fusion. This work uses multiscale feature fusion policy in the NN. To verify the effectiveness of this method, this work conducts corresponding comparative experiments. It compares the evaluation performance without multiscale feature fusion and when it is used, and the experimental results are shown in Figure 7.

Compared with not using the multiscale feature fusion strategy, after using this strategy, the precision and recall are

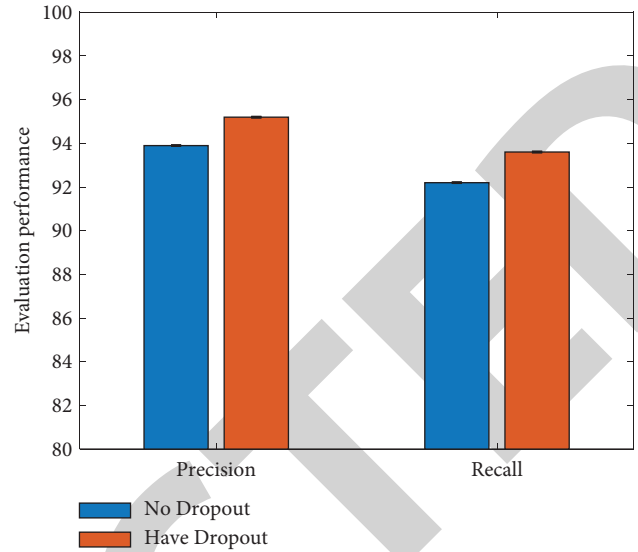


FIGURE 5: Evaluation on dropout strategy.

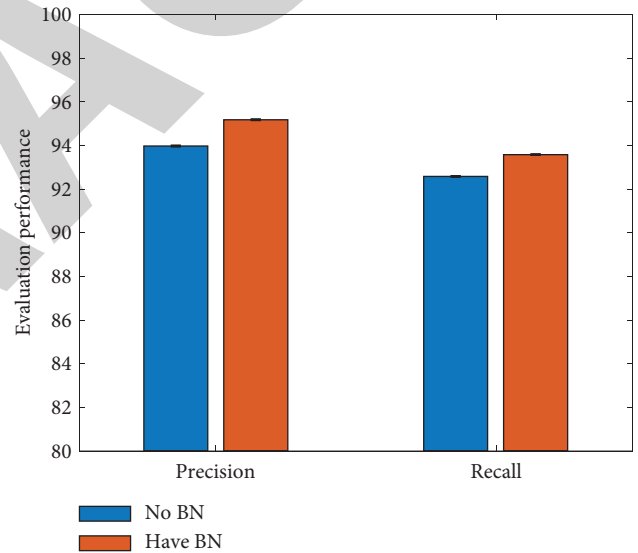


FIGURE 6: Evaluation on BN.

improved by 1.5% and 2.1%, respectively. This verifies the correctness of using a multiscale feature fusion strategy in this work.

4.6. Evaluation on Attention. This work uses the attention strategy in the NN. To verify the efficiency of this method, the work behaviors corresponds to comparative experiments. It compares the evaluation performance without attention and with attention, and the experimental results is shown in Figure 8.

Compared with not using the attention strategy, after using this strategy, the precision and recall improved by 1.5% and 1.7%, respectively. This verifies the correctness of using the attention strategy in this work.

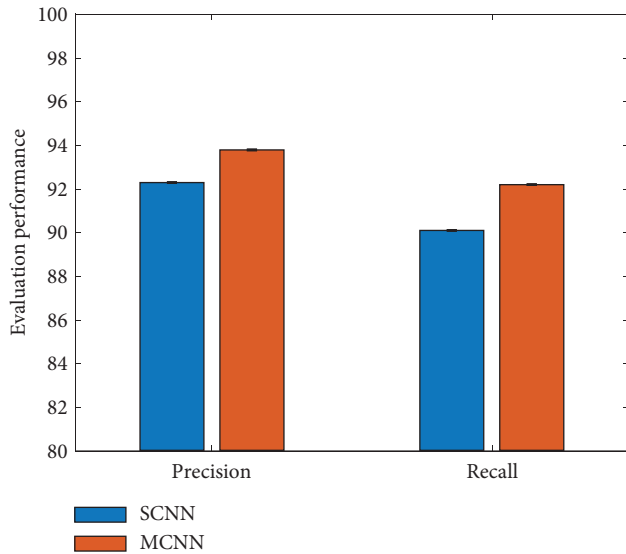


FIGURE 7: Evaluation on multiscale feature fusion.

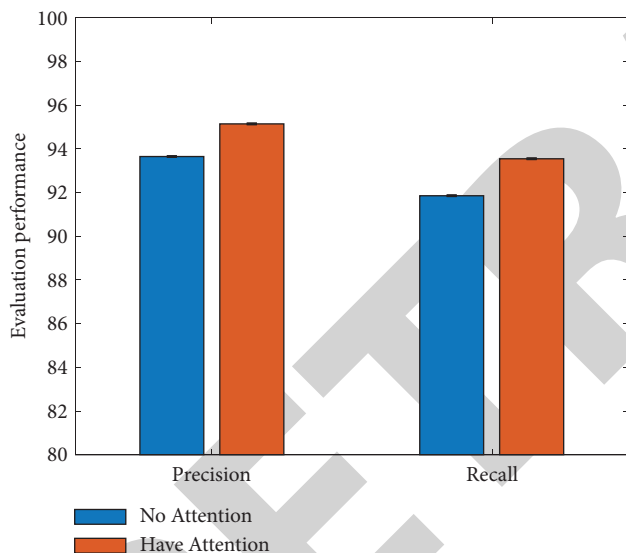


FIGURE 8: Evaluation on attention.

5. Conclusion

It is critical for colleges to use their administration to manage and teach their students' ideological and political perspectives. The people-oriented concept must be included into the intellectual and political administration of college students' education in the new era. Students in college are a distinct demographic that represents the time period in which they reside. Management concepts are continually updated by ideological and political managers, who regularly study the government's position, beliefs, and policies. There should be a defined set of objectives in place for the school's ideological or political teaching, as well as rules and regulations that are tailored to the school's specific qualities. An artificial NN is built to assess the ideological and political education management of college students on the basis of

big data, wireless networks, and AI. This work applies the convolutional NN technology in deep learning to the evaluation of ideological and political education management. It mainly aims the traditional evaluation technology algorithm that relies heavily on an evaluation system and has a low accuracy rate. The features extracted by a single NN are not rich enough, and the multiscale CN fusion does not consider the importance of the problem. A multiscale CN model MCNN is proposed. In addition, this work optimizes and improves the model, integrates the attention mechanism, and proposes the MACNN model for the management evaluation of college students' ideological and political education. Based on big data, this work collects data for NN and deploys the network model in a remote wireless network for easy access and operation at any time.

Data Availability

The datasets used during the current study are available from the corresponding author on reasonable request.

Conflicts of Interest

The author declares that he has no conflicts of interest.

References

- [1] Y. Wang, "Analysis on the construction of ideological and political education system for college students based on mobile artificial intelligence terminal," *Soft Computing*, vol. 24, no. 11, pp. 8365–8375, 2020.
- [2] J. M. Xu, "The research of ideological and political work management system for college students based on J2EE," *Applied Mechanics and Materials*, Trans Tech Publications Ltd, vol. 687-691, pp. 2533–2536, 2014.
- [3] H. Deng, "Network ideological and political education of college and research analysis," *Advanced Materials Research*, Trans Tech Publications Ltd, vol. 971-973, pp. 2591–2594, 2014.
- [4] B. Ji, Y. Li, D. Cao, and C. S. D. Li, "Secrecy performance analysis of UAV assisted relay transmission for cognitive network with energy harvesting," *IEEE Transactions on Vehicular Technology*, vol. 69, no. 7, pp. 7404–7415, 2020.
- [5] Z. Hu and J. Li, "Innovative methods for ideological and political education of college students[J]," *Educational Sciences: Theory and Practice*, vol. 18, no. 5, 2018.
- [6] H. Qiao and L. Tan, "Development and application of management information system for college students' ideological and political education," in *Proceedings of the International Conference on Intelligent Transportation, Big Data & Smart City (ICITBS)*, pp. 496–499, IEEE, Xiamen, China, 25 January 2018.
- [7] X. Lin, J. Wu, S. Mumtaz, and S. J. M. Garg, "Blockchain-based on-demand computing resource trading in IoV-assisted smart city," *IEEE Transactions on Emerging Topics in Computing*, vol. 9, no. 3, pp. 1373–1385, 2021.
- [8] Y. Xia, "Big data based research on the management system framework of ideological and political education in colleges and universities," *Journal of Intelligent and Fuzzy Systems*, vol. 40, no. 2, pp. 3777–3786, 2021.

- [9] X. Liu, Z. Xiantong, and H. Starkey, "Ideological and political education in Chinese Universities: structures and practices," *Asia Pacific Journal of Education*, vol. 1, pp. 1–13, 2021.
- [10] Y. Wang, "Big data era influence on college students' ideological and political education and innovation strategy [C]," in *Proceedings of the Eighth International Conference on Measuring Technology and Mechatronics Automation (ICMTMA)*, pp. 126–128, IEEE, Macau, China, 11 March 2016.
- [11] L. Huang, "Teaching management data clustering analysis and implementation on ideological and political education of college students [C]," in *Proceedings of the International Conference on Smart Grid and Electrical Automation (ICSGEA)*, pp. 308–311, IEEE, Zhangjiajie, China, 11 August 2016.
- [12] L. Li, "Teaching of ideological and political education for college students from the perspective of culture [J]," *DEStech Transactions on Social Science Education and Human Science*, vol. 1, pp. 656–661, 2017.
- [13] W. Jiang, "Problems and countermeasures of ideological and political management of college students based on network information [C]," *Journal of Physics: Conference Series*, IOP Publishing, vol. 1744, no. 4, Article ID 042005, 2021.
- [14] B. Zhang, V. Velmayil, and V. Sivakumar, "A deep learning model for innovative evaluation of ideological and political learning [J]," *Progress in Artificial Intelligence*, vol. 2, pp. 1–13, 2021.
- [15] K. Li, "The application of people-oriented thinking in the management of college students' ideological and political education," *International Journal of Social Science and Education Research*, vol. 2, no. 7, pp. 115–119, 2019.
- [16] L. Zhang, "Analysis on new approaches of ideological and political education in colleges under new media environment," *Creative Education*, vol. 06, no. 22, pp. 2427–2432, 2015.
- [17] S. Zheng, "Research on the integration and expansion of ideological and political education resources based on the network platform under the guidance of the big ideological and political concept [C]," *Journal of Physics: Conference Series*, IOP Publishing, vol. 1648, no. 3, Article ID 032040, 2020.
- [18] C. Yu and W. Guo, "Individualized teaching for college students' ideological and political education based on the concept of cognitive science," *Educational Sciences: Theory and Practice*, vol. 18, no. 6, 2018.
- [19] L. Ying and P. Linqun, "Voluntary service: the important carrier of ideological and political education of college students [J]," *Canadian Social Science*, vol. 11, no. 2, pp. 98–105, 2015.
- [20] P. Yihui and T. Keqin, "Method innovation of undergraduate ideological and political education based on network environment," *Procedia Engineering*, vol. 15, pp. 2752–2756, 2011.
- [21] S. Xiao, Q. Kong, M. Song et al., "Teaching reform of CNC technology course under the ideological and political education [J]," *International Journal of Social Science and Education Research*, vol. 2, no. 10, pp. 36–41, 2019.
- [22] W. Ren, "Research on ideological and political education of college students from the perspective of college network public opinion [C]," in *Proceedings of the Annual International Conference on Social Science and Contemporary Humanity Development (SSCHD 2020)*, pp. 15–19, Atlantis Press, Xi'an, China, 18 Decembre 2021.
- [23] Q. Gao and L. Ai, "Problems of ideological and political education of college students in the era of big data [C]," *Journal of Physics: Conference Series*, IOP Publishing, vol. 1852, no. 3, Article ID 032037, 2021.
- [24] X. Zhao and J. Zhang, "The analysis of integration of ideological political education 21th innovation entrepreneurship education for college students [J]," *Frontiers in Psychology*, vol. 12, 2021.
- [25] W. Han, "Using information technology to improve ideological and political education and student management efficiency in colleges [C]," *Journal of Physics: Conference Series*, IOP Publishing, vol. 1533, no. 2, Article ID 022126, 2020.
- [26] W. Li, "The study significance and individual value positioning of the ideological and political education of college students [J]," *Canadian Social Science*, vol. 11, no. 5, pp. 89–93, 2015.
- [27] J. Zhao and Y. Zhang, "Design of ideological and political education management model for university student based on ecological cognition," *[J]. Ekoloji*, vol. 28, no. 108, pp. 433–437, 2019.
- [28] R. Dai, "Research on the innovation and development of ideological and political education in colleges and universities based on computer technology [C]," *Journal of Physics: Conference Series*, IOP Publishing, vol. 1744, no. 3, Article ID 032213, 2021.