

Retraction

Retracted: Design of Ideological and Political Communication Path of Curriculum under the Background of Intelligent Information of New Media

Mobile Information Systems

Received 8 August 2023; Accepted 8 August 2023; Published 9 August 2023

Copyright © 2023 Mobile Information Systems. 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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1].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.

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] H. Lu, "Design of Ideological and Political Communication Path of Curriculum under the Background of Intelligent Information of New Media," *Mobile Information Systems*, vol. 2022, Article ID 4459877, 11 pages, 2022.

Research Article

Design of Ideological and Political Communication Path of Curriculum under the Background of Intelligent Information of New Media

Han Lu 

School of Culture and Media Huanghuai University, Zhumadian, Henan 463000, China

Correspondence should be addressed to Han Lu; 20121249@huanghuai.edu.cn

Received 15 July 2022; Revised 12 August 2022; Accepted 10 September 2022; Published 3 October 2022

Academic Editor: Le Sun

Copyright © 2022 Han Lu. 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.

In order to improve the effectiveness of the safe, high-quality, and efficient communication mechanism of ideological and political courses in the new media perspective, the ideological and political communication path of courses in the new media perspective based on blockchain technology is designed. Mainly through the organic combination of online communication, offline-online dynamic feedback, and offline communication, based on the blockchain structure, an online information transmission path of online ideological and political courses leading to offline and offline feedback online is formed. In this path, the new media network platform uses the method based on bad information screening to screen out bad information, obtain a relatively safe ideological and political course information and cultural source, and then spread the information. Through the optimization strategy of PBFT consensus protocol based on a C4.5 decision tree, the trust environment for the dissemination of ideological and political courses is constructed. The network load balancing channel allocation algorithm based on the maximum flow of curriculum ideological and political communication path is adopted to ensure the network fluency and realize the efficient dissemination of curriculum ideological and political information. The experimental results show that the designed path can realize information security, high quality, and efficient sharing of ideological and political courses and has good performance.

1. Introduction

This sentence is amended to read: Under the background of new media and new information technology, the difficulty of information supervision is further increased. New media is characterized by virtuality, interactivity, and interest [1, 2], which caters to the psychological characteristics of young college students in the new era, such as their own personality and curiosity about new things. The new media has been warmly welcomed and pursued by students, which has greatly impacted the traditional serious and monotonous ideological and political education model [3, 4]. Therefore, studying how to effectively use new media to enhance the pertinence and effectiveness of ideological and political education in colleges and universities is the key link to implement ideological and political education in colleges

and universities under the new media vision in the new era [5].

Some studies define new media as follows: “new media refers to the science and technology that takes computer as the core for communication, which can facilitate or strengthen the interaction among users and facilitate users to obtain the latest information” [6]. Some scholars put forward a new point of view that new media will no longer be any kind of media with special significance and can be displayed in corresponding new media forms according to actual needs [7]. On the path of ideological and political education in colleges and universities, scholars have studied it from the perspective of external causes. Some people propose that it is necessary for the government and the media to form a joint effort to create a good media environment and further strictly examine and remove the bad

information and content in different forms of mass media [8]. However, in view of the problem of ideological and political communication path design in the curriculum from the perspective of new media, most of the existing studies are based on text.

Course education under the new media era of the transmission path for innovative design, mainly through the fusion of “blockchain + spread” application, from the network technology security level for solving ideological course safe transmission path, and introduce the network load balancing channel allocation algorithm, remove in new media network platform used for spreading ideological instruction courses bad information, building trust environment, Form a good atmosphere to promote the dissemination of ideological and political courses and ensure that the new media network platform used for the dissemination of ideological and political courses will not be overloaded.

2. Ideological and Political Communication Path of Curriculum in the Perspective of New Media Based on Blockchain Technology

2.1. Path Design. Blockchain technology is applied to the information dissemination of ideological and political courses under the new media perspective. The information dissemination of ideological and political courses under the new media perspective is mainly based on network courses. The ideological and political communication path of new media based on blockchain technology is mainly through the organic combination of online communication, offline-online dynamic feedback, and offline communication, forming an information security communication path of network curriculum with online leading offline and offline feedback online. Figure 1 shows the details.

As shown in Figure 1, the communication modes in the ideological and political communication path of curriculums from the perspective of new media based on blockchain technology are divided into online communication, offline communication, and offline-online communication. The relationship between online and offline is online leading to offline and offline feedback online, and this path uses the blockchain structure to decompose the overall propagation path into source record chain, joint check chain, platform record chain, cultural information chain, and dynamic feedback chain. Each chain complements the other. In the actual communication process, each chain exists in different propagation paths, which will be described in detail as follows.

The online communication path is composed of an information source record chain, joint check chain, platform record chain, and cultural information chain. After multiple screening and processing, it spreads excellent cultural information about the ideological and political curriculum.

The communication path of the source record chain is network user → new media network platform → joint gatekeeper. First of all, users transmit the information of ideological and political curriculum to the new media

network platform. In this process, the new media network platform automatically extracts the cultural elements of the ideological and political curriculum information and uses an effective communication method for ideological and political information of curriculum based on the bad information screening method to screen out the bad information and obtain a relatively safe cultural source of ideological and political information of curriculum. The platform records it on the blockchain to form a source recording chain. Due to the privacy of user operations and the unknown security level of the source, the source records use the private chain structure [9]. In the private chain, the user’s writing permission is strictly controlled, the privacy is well protected, and the operation behavior is traceable, so as to restrict the user’s communication of ideological and political curriculum information and control the occurrence of communication risk of ideological and political curriculum information from the source. Finally, the platform grants the joint shutdown source record chain with reading permission to pass the information on the chain to the joint gatekeeper. The communication path of the joint gatekeeper chain is the joint gatekeeper → new media network platform. The information sources of ideological and political curriculums preliminarily screened are uploaded to the new media network platform, checked by the government, the platform, and user representatives, and recorded on the joint check chain in the network environment after the PBFT (Practical Byzantine Fault Tolerance) consensus protocol optimization strategy based on C4.5 decision tree which is processed. The processed ideological and political curriculum information can be regarded as a safe source and has the right to spread. The operation authority of the joint chain will be granted to the communication platform, and the new media network platform will transform the chain structure to expand the communication scene. The propagation path of the platform record chain is the new media network platform → joint shutdown system. In addition to the reliable source of ideological and political curriculum information, the safe communication of ideological and political curriculum information also depends on the legal communication platform. Before information disclosure and sharing, the new media network platform should be selected first, and whether the new media platform submitted by the user is legal [10]. Firstly, the joint gatekeeper reads the formal website information recorded on the platform, compares the application information with the platform records, and blocks the communication platform if the platform is not included in the required filing. After ensuring the reliability of the platform, the shutdown system will be granted to a reliable communication platform to record and disclose safe ideological and political curriculum information.

The communication path of the cultural information chain is the communication platform → network audience. Because the public chain has the characteristics of low access threshold, open and transparent data, no change, and anonymity, it is more suitable for the communication scenario of open sharing of ideological and political curriculum information. Therefore, after reading the safety ideological and political curriculum information recorded on the joint

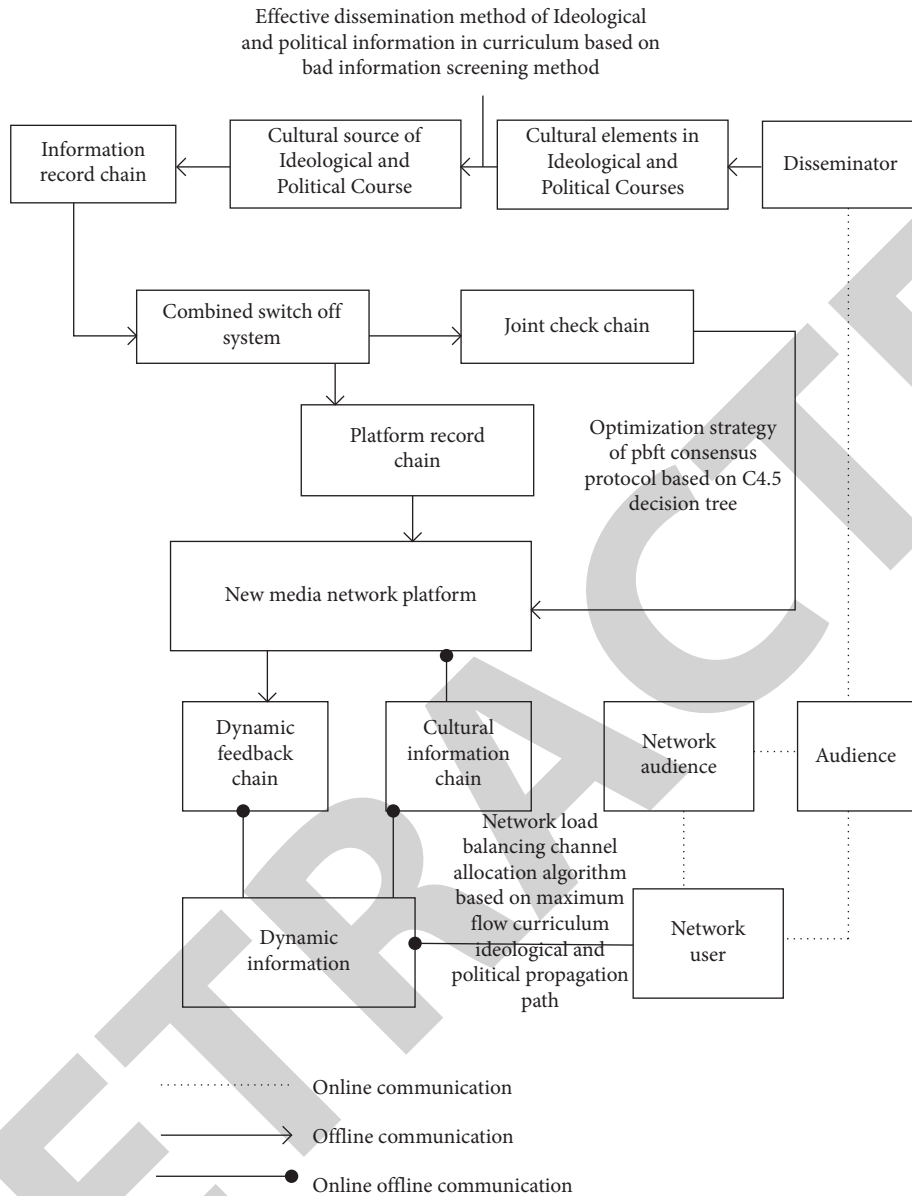


FIGURE 1: Ideological and political communication path of curriculum from the perspective of new media based on blockchain technology.

chain, the platform records it on the cultural information chain based on the public chain structure and transmits it to the audience through network communication. In the communication process, the channel allocation algorithm of network load balancing for the ideological and political communication path of curriculum based on the maximum flow is used to optimize the smoothness of network communication and the communication efficiency of ideological and political curriculum information [11].

The offline-online communication path consists of a dynamic feedback chain, which is the feedback of offline communication to online communication. The social behavior of users and their relationship network have become an important medium for information sharing and transmission, promoting the change of information flow and even communication mode. Under the guidance of information

security communication of online ideological and political curriculums, through the dynamic feedback of the audience offline, we can more intuitively understand the effect of information communication of ideological and political curriculums, and then adjust the shutdown system, and improve the online communication path [12].

The communication path of the dynamic feedback chain is network audience → communication platform → joint gatekeeper. In the process of online audiences uploading offline dynamics as the information source of ideological and political curriculums, they still need to first pass the automatic screening of the system and then record the dynamic information on the feedback chain, which will be transmitted by the platform to the united system. The security of feedback dynamics can be verified through the information processing process of the online security

communication path. If the dynamic information passes the screening, it will be regarded as a new safety information source of the ideological and political curriculum and linked to the cultural information chain. At the same time, through the traceable characteristics of the cultural information chain, it can find the cultural information that the audience has visited and is related to the feedback dynamics, screen and test its security again, and complete the secondary check on the ideological and political curriculum information. By linking new cultural trends, reprocessing recorded information sources, and finally building a safe communication path of online-offline circulation, it can expand the cultural chain structure and weave a cultural information network.

The offline communication path is the third safe communication path guaranteed by the abovementioned two parts of the communication path, and it is an extension of the online communication path in real life. Through the transition from offline to online communication, the online audience will introduce the online safety information of ideological and political curriculum into the offline cultural communication activities through practical activities and deliver it to the real audience. There is a two-way communication relationship between the source and the audience in the offline communication path, forming two paths: one is the two-way communication between the network audience and the real audience. It is based on multiple screening of cultural information through online communication and offline feedback and continuous optimization [13]. The audience will also give feedback on the received cultural information. On the premise of ensuring the security of cultural sources, the security of the offline cultural information transmission path will be greatly improved; the second is the two-way communication between the source and the audience. While the source uploads cultural information to the platform, it will also transmit the cultural information to the public through real interpersonal interaction. Through online review and feedback, it can also effectively restrict real communication activities and filter bad information.

2.2. Effective Communication Method of Ideological and Political Information Based on Bad Information Screening Method

2.2.1. Feature Model of Bad Information Retrieval from the Perspective of New Media.

When the new media network platform automatically extracts the information uploaded by users, it needs to use an effective information communication method for curriculum ideology and politics based on the bad information screening method to screen out the bad information and obtain a relatively safe information source that meets the needs of students. In this process, it is necessary to classify the bad information data first so as to distinguish the bad information domains at different levels. This paper uses the hierarchical structure to classify bad information. The hierarchical classification model structure of the bad information is shown in Figure 2. According to the predefined domains at different levels, the bad information features are extracted and summarized, and each

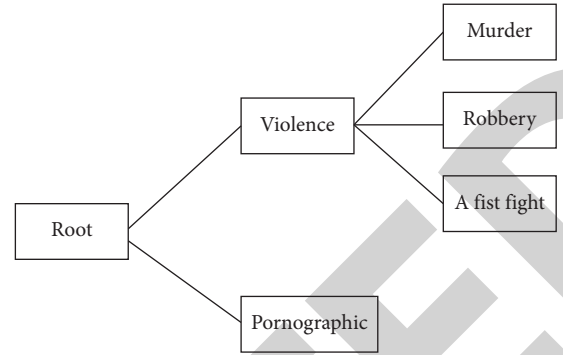


FIGURE 2: Hierarchical classification model structure of bad information.

part of the features is classified into different hierarchical classes. At the same time, all bad information data are counted, and the weights of each field are stored in the hierarchical classification tree [14].

The hierarchical classification model of bad information shown in Figure 2 is organized according to the size and relationship of the bad information domain. The closer it is to the root node, the larger the range it represents. All the child nodes of each node are the refinement of the bad information domain. If the feature word falls within the range of a subnode of a node, the bad information domain covers this node. In this model, the branch represents the category of the bad information node, and the leaf node represents the feature words extracted from the bad information data. It can be seen from the above model that the hierarchical classification tree of bad information should be found for the classification of each feature word, and then all the parent nodes of the leaf node are weighted and stored in the bad information model. The advantages of this classification are fast searching, accurate classification, scientific method, and ease of modification and optimizing the bad information model each time.

From the above description, it can be seen that the new media network platform can express the bad information of a certain category with two tuples (bad information category and bad information weight). The combination of several bad information categories constitutes a bad information set, and the set of all bad information constitutes a bad information set. The set of characteristic words contained in a bad information category is called the bad information characteristic word set of the bad information category. The characteristic words contained in all bad information categories constitute the bad information characteristic word set [15]. Assuming that the bad information set is represented by AJ and each bad information vector is represented by NAJ , as shown in formulas (1) and (2):

$$AJ = \{AJ_1, AJ_2, \dots, AJ_n\}, \quad (1)$$

$$NAJ_j (1 \leq j \leq n) = (h_j, \omega_j). \quad (2)$$

In the formula, h_j represents the j -th feature word of the bad information set, and ω_j represents the weight of the j -th feature word. The two-tuple (h_j, ω_j) represents the j -th bad

information field uploaded by the user, and n is the total number of bad information fields, that is, the total number of all branch nodes of the bad information tree.

2.2.2. Bad Information Screening and Effective Curriculum Information Communication. The vector space model has been widely considered a very effective retrieval model. It has a natural language interface and is easy to use. Vector space model can also be applied to information filtering. Since the ideological and political curriculum information uploaded on the new media network platform is mainly documents, the document resource C of ideological and political curriculum uploaded by users is identified as an n -dimensional vector, where n is the total number of subitems that can be used to identify the document resource content of the ideological and political curriculum. Each subitem is given a weight to indicate its importance. The vector identification of a document resource C of the ideological and political curriculum is $C(\omega_1, \omega_2, \dots, \omega_n)$, which is the weight of the feature item. The information filtering of the vector space model is mainly divided into four aspects:

(1) To give a vector representation of an ideological and political curriculum document, we follow the following steps:

- (a) Finding out all the words in the document resources of ideological and political curriculums
- (b) Deleting the words that appear frequently but have no practical meaning
- (c) Calculating the weight of the word that has not been deleted

The most common way to calculate the weight of word items is to use the product of word item frequency factor or reverse document frequency factor. The word frequency factor is proportional to the frequency of word items in the document. The reverse document frequency factor is used to identify the importance of word items in the document resources of ideological and political curriculums. The frequency of some word items in the document is very low, but their reverse document frequency factor is very large; while some word items appear frequently in documents, the frequency factor of reverse documents is very small [16]. In the filtering process of the vector space model, the students' demand direction is expressed in natural language. The method of representing the document resource vector of ideological and political curriculums is used to represent the vector of students' demand direction. Therefore, a student's demand direction Q can be expressed as $Q(q_1, q_2, \dots, q_n)$, where q_n is the weight.

(2) Similarity measurement between documents and students' needs: to measure the similarity between the vector representation of a document resource ideological and political curriculum and the vector representation of students' demand direction, that is, to judge whether this document is required by students, it is usually calculated by finding the cosine of the angle between the two vectors. For example, given the document resource C of ideological and

political curriculum and a student's demand direction description vector Q , then the cosine value of the included angle is the following formula :

$$\text{sim}(C, Q) = \frac{CQ}{\|CQ\|} = \frac{\sum_{j=1}^n \omega_j q_m}{\sqrt{\sum_{j=1}^n \omega_j q_m}} \quad (3)$$

The greater the cosine of the included angle between the resource vector of ideological and political course documents and the direction vector of student demand, the greater the similarity between them, and vice versa.

(3) Relevant thresholds: when the new media network platform performs information filtering, a student demand model is only approximately compared with a single document or a few documents of the ideological and political curriculum. What is discussed here is to return a certain number of documents with high similar values over a period of time. The period mentioned here must be enough to assign relevant values to the obtained documents. Of course, this is at the expense of the timeliness of the documents. In addition to timeliness, the efficiency of filtering needs to be measured by accuracy and recall rate, which is judged by the document set obtained over a period of time. If it is especially necessary to ensure high accuracy, that is, the documents of ideological and political curriculums are consistent with students' interests, the recall rate will inevitably be affected, and there must be relevant documents not found. If it wants to achieve a high recall rate, that is, to find out all the relevant documents, some of the documents found must be irrelevant, and the accuracy will be reduced. The concept of the relevant threshold value is put forward by comprehensively considering the accuracy and completeness to obtain higher filtering efficiency [17], that is, let the students set a relevant threshold value and return only the document resources of ideological and political curriculum higher than this value to the students, namely, given Q and the relevant threshold value β . For any returned document resource C of ideological and political curriculum, its correlation degree is $\text{sim}(C, Q) > \beta$.

(4) Relevant feedback: relevance feedback is widely used to improve the efficiency of information retrieval. This technology mainly modifies and improves students' needs and query functions according to the results, so that it can more faithfully reflect students' needs.

2.3. PBFT Consensus Protocol Optimization Strategy Based on C4.5 Decision Tree. The new media network platform can use a consensus protocol to establish a trusting environment and form a good atmosphere to promote the communication of document resources of the ideological and political curriculum. From the operating principle of the C4.5 decision tree, it is a customized classification method for data classification. Therefore, it is of great significance to classify and evaluate all consensus nodes before the implementation of the PBFT consensus protocol. According to the trust evaluation of consensus nodes, $|S|$ consensus nodes in the ideological and political communication path of the

curriculum in the perspective of new media based on blockchain technology are changed into $\{0, \dots, |S| - 1\}$ according to the trust level. If the current consensus master node fails or is overthrown, equation (4) is used to reselect the common master node o .

$$o = u \bmod |S| - 1. \quad (4)$$

In addition, on the basis of using the C4.5 decision tree to evaluate and classify the trust of the consensus nodes in the communication path of the ideological and political curriculum in the perspective of new media based on blockchain technology, this paper introduces the concept of voting weight and adopts the idea of “The better the trust is, the greater the voting weight is,” to reflect the differences between consensus nodes. For the convenience of research, the definition of the average voting value of consensus nodes is given below:

For the voting weight in the resource communication network of the ideological and political curriculum with the number of consensus nodes $|S|$, during the consistency consensus verification process, the reliability and response speed of the verification message provided by the consensus node t are expressed in the form of voting weight, which is recorded as V_t , as shown in the following formula :

$$V_t = t^2 + 4. \quad (5)$$

Then, the sum of the voting weights of all consensus nodes in the ideological and political curriculum resource communication network is recorded as RN_{V_t} , as shown in the following formula :

$$RN_{V_t} = \sum_{t=0}^{|S|-1} V_t. \quad (6)$$

Here, the minority obeys the majority, and the threshold of voting weight is set to be 0.5 times the total voting weight.

The optimized PBFT consensus algorithm in this paper adds an initialization process before the implementation of the three-phase protocol on the basis of maintaining the original three-phase broadcast protocol. As shown in Figure 3, since the number of all consensus nodes during the operation of the PBFT consensus algorithm is fixed, it does not support dynamic free join or exit [18]. Therefore, the initialization phase (Init) starts only when a new node joins or an old node exits.

2.3.1. Initialization Phase. The consensus nodes in the dissemination network of ideological and political course resources are evaluated by the C4.5 decision tree classification model. According to the evaluation results, all consensus nodes are allocated and given the corresponding voting weights. The main node o is selected using equation (4). If the main node in the current view u is wrong, the operation of switching the main node will be carried out. At this time, the initialization of the consensus node in the resource communication network of ideological and political curriculum is completed. If no new nodes join or old nodes exit, the trust evaluation and classification operation of the consensus node will not be restarted.

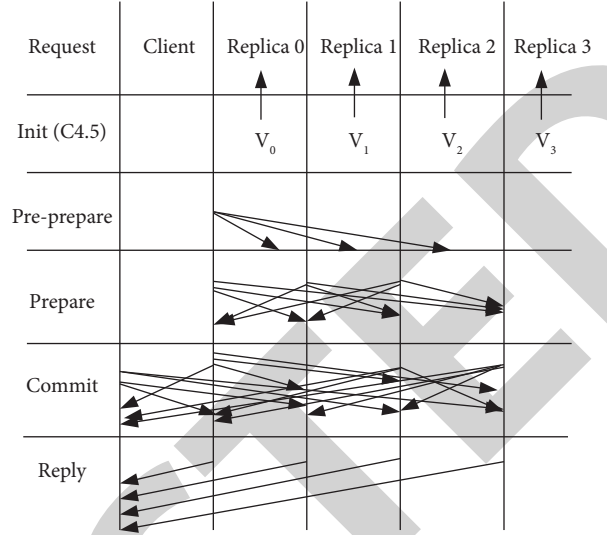


FIGURE 3: Consensus process of optimized PBFT algorithm.

2.3.2. Prepreparation Phase. In the resource propagation network of ideological and political curriculum, the consensus master node assigns the proposal number m to the ideological and political curriculum requested by the received client d , and multicast the prepared document message list of ideological and political curriculum to each subordinate consensus node.

2.3.3. Preparation Phase. After receiving the list of pre prepared document messages of ideological and political curriculum sent by the master node, the slave node starts to verify the legitimacy of the request message and ensure that the proposal number m meets the standard value range. If the verification passes, it multicasts the preparation message with its voting weight to the whole network, and writes the preparation message and the preparation message into the message log; Otherwise, the slave node does nothing. The consensus node collects the ready messages from other nodes. If the consensus node gathers the ready messages that exceed the voting weight threshold, the node enters the ready state; Otherwise, it sends the document message of ideological and political curriculum that the consistency consensus verification fails to the client d .

2.3.4. Confirmation Phase. The consensus node in the ready state will multicast a confirmation message with its voting weight to the whole network and collect confirmation messages from other nodes. If the consensus node gathers the confirmation messages that exceed the voting weight threshold, the node enters the submission state and executes the document acquisition request for the ideological and political curriculum of the client [19].

2.4. Channel Allocation Algorithm of Network Load Balancing for Ideological and Political Communication Path Based on Maximum Flow. From the perspective of new media, the

path, of course, ideological and political communication takes the network as the carrier for course information dissemination. Because the network is open and shared, when a large number of users apply for curriculum resources at the same time, the network congestion will increase. At this time, network load balancing is very important [20]. In this paper, the channel allocation algorithm of network load balancing for the communication path of curriculum ideology and politics based on the maximum flow is used to ensure the smoothness of the network and optimize the efficiency of the curriculum ideology and politics communication from the perspective of new media.

The channel allocation algorithm of network load balancing for the communication path of curriculum ideology and politics based on the maximum flow is divided into two parts. The first stage is link-group binding; the second stage is group-channel allocation. In the first stage, all links in the same interference domain in the ideological and political communication path are sorted in descending order according to their traffic load, and the links with large loads are grouped first, and the traffic of each group is load balanced [21]. In the grouping process, it is necessary to ensure that the number of groups allocated to nodes meets the constraint of the number of interfaces. In the second stage, the maximum link load rate of each group is sorted in descending order. The group with a high link load rate is given priority to allocate channels with more remaining bandwidth, and all links in the same group are allocated the same channel [22].

In the ideological and political communication path, the load rate α_{ji} of a link is directly proportional to the load g of link f_{ji} and the interference degree $|JZ(f_{ji})|$. If α_{ji} is not greater than 1, it indicates that the more the remaining bandwidth of the link in the ideological and political communication path is, the more conducive it is to accept other new curriculum information requests [23]. That is to say when the new media network platform transmits the document information of ideological and political curriculums, it should try to use the channels with abundant bandwidth resources and fewer channels with tight bandwidth resources, so as to achieve the load balance among the channels in the network [24]. Therefore, considering the traffic load of the link and the load balance of each channel when transmitting the information traffic of ideological and political curriculum documents, a minimum optimization of α_{ji} is required during channel allocation, that is, the goal of load balance is $\text{Min } \alpha_{ji}$.

As mentioned earlier, the algorithm is divided into two stages. In the first stage algorithm, in the communication path of document resources of ideological and political curriculum, Z_{ji} is used to represent the group of document resources of ideological and political curriculum allocated to link f_{ji} . For any node j , all its neighbor node sets are $m(j)$. The set of all groups is δ , $\delta(j)$ represents the group set that the document resources of the ideological and political curriculum are allocated to node j , and w represents the group number. After each iteration, all links of a node will be

assigned to the corresponding group. In the second stage algorithm, $M(w)$ represents the set of related terminal nodes of the group w in the link allocation.

The core process of the first phase is described as follows:

- (1) describe the physical topology of the network channel used by the ideological and political communication path of the curriculum in the new media perspective as $F(U, L)$, train the link f_{ji} of each node j in $F(U, L)$ according to the traffic descending order, and group in turn, so that the number of packets of each node link is not greater than the number of interfaces of the node [25].
- (2) Link f_{ji} is grouped as follows:
 - (a) If the number of $\delta(j)$ is less than the number of users, we assign a new group w to link f_{ji} ;
 - (b) Otherwise, we select a group w and calculate its α_{ji} . If α_{ji} is the smallest, we assign a group w to the link.
- (3) group all links according to step (2) and return the grouping results of all links.

In the selection and allocation of any link f_{ji} , the group satisfying $\text{Min } \alpha_{ji}$ is preferred.

The core process of the second stage algorithm is described as follows:

- (1) We calculate the load values in all link interference domains in each group, as shown in the following formula:

$$V(e) = \sum_{f_{ji} \in F(U, L)} M(w)\alpha_{ji}. \quad (7)$$

The maximum link load rate of each group is sorted in descending order, and the channel is allocated in turn.

- (2) In the communication path of document resources of ideological and political curriculum, if the maximum link load rate in group w is the maximum value in all current groups, it selects the channel with the most remaining bandwidth to allocate to all links in group w and sends the selection results to other groups [26]. Otherwise, you can participate in the next round of channel allocation only after the channel information allocation in the receiving network is completed.
- (3) We repeat step (2) and assign until complete.

3. Results

3.1. Simulation Experiment Data and Simulation Environment Settings. The program in the experiment is written in C++ language. The hardware environment is Pentium IV 3.5 GHz CPU, the main memory is 2 GB, the hard disk is 320G, the operating system is Windows XP, and the simulation database system is SQ L Server 2005.

3.2. Screening Effect of Bad Information. In order to test the screening effect of the path in this paper on bad information when disseminating ideological and political course information, the types of bad information to be screened are set as gambling, fraud, vulgar, and fraud, and the number of documents is 5, 6, 2 and 5, respectively. Then, the screening effect of the path in this paper on the four bad information is shown in Figure 4.

It can be seen from Figure 4 that the path of this paper has a good screening effect on gambling, fraud, vulgarity, and fraud when disseminating the document information of ideological and political courses. The number of documents is 5, 6, 2, and 5 respectively, and the number of screened documents is consistent with the actual number.

3.3. Communication Effect of Ideological and Political Curriculums. Education curriculum, the new media network platform for feedback to the students' course documents and demand direction similar degree, can reflect the path of political education course communication effect, as mentioned above, measure the vector representation of a document and the student demand direction vector representation of similar degree, and also is to judge whether the document is required for students, Usually, the cosine of the Angle between the two vectors is calculated. The larger the cosine of the Angle between the document vector and the direction vector of student demand is, the greater their similarity is, and vice versa. Therefore, the ideological and political course documents required by a student are set as an introduction to the Basic Principles of Marxism and an outline of Modern and Contemporary Chinese history. In the simulation data with gambling, fraud, vulgar, and fraud, the communication effects of the two kinds of ideological and political course documents are shown in Figure 5 after the application of the path in this paper.

According to Figure 5, the paper path before use, the new media network platform for feedback to students' political education curriculum document and the included Angle cosine value between students demand is greater than 0.04, the paper path, after using new media network platform for feedback to students' political education curriculum document and the included Angle cosine value between students demand is less than 0.02, significant difference, This proves that the path of this paper can ensure the quality of the dissemination of ideological and political course resources from the perspective of new media.

3.4. Load Balancing Effect. The experiment mainly takes the throughput, end-to-end delay, and network channel load of the new media network platform in the communication of ideological and political curriculums as performance indicators, and sets the types of ideological and political curriculum documents required by a student, which are an introduction to basic principles of Marxism (referred to as ideological and political curriculum 1 in the simulation experiment diagram) and outline of modern Chinese history (referred to as ideological and political curriculum 2 in the simulation experiment diagram). The change of network

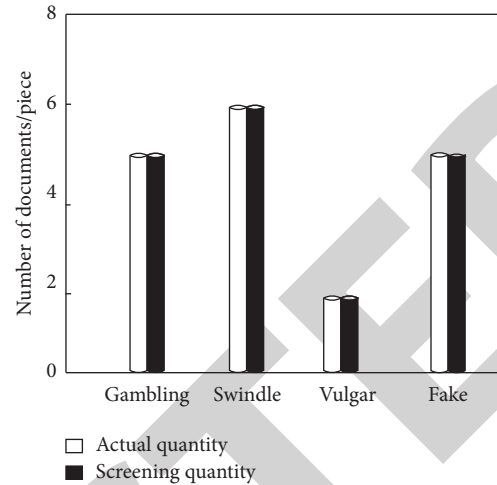


FIGURE 4: The screening effect of this path on four kinds of bad information.

throughput with the number of curriculum documents is shown in Figure 6, the change of end-to-end delay with the number of curriculum documents is shown in Figure 7, and the change of channel load with the number of curriculum documents is shown in Figure 8.

According to Figures 6–8, the paper path after use, when students need education curriculum document type, respectively is an introduction to the basic principle of Marxism and modern history of China outline type, new media network platform in the spread of political education course throughput increase along with the increase of the document number, the end-to-end delay increased with the number of documents, However, the maximum delay is only 0.02 s, and the network channel load also changes slightly with the increase of the number of documents, and the load value is less than 0.15. The reason is that the path in this paper fully considers a load of links and channels when allocating channels so that a load of each channel in the network is relatively balanced, and the problem of overload will not occur.

To sum up, when disseminating ideological and political course document information, this path has a good effect on screening gambling, vulgarity, and fraud. The number of screened documents is consistent with the actual number, which can ensure the dissemination quality of Ideological and political course resources. After using the path in this paper, the network channel load also changes slightly with the increase in the number of documents, and the method studied has good performance.

4. Discussion

Based on the research content of this article, the main problems of ideological and political communication in the curriculum are discussed as follows:

4.1. The Loss of the Center of Communication Subject and Authority. The subjects of ideological and political education in colleges and universities are professional teachers and

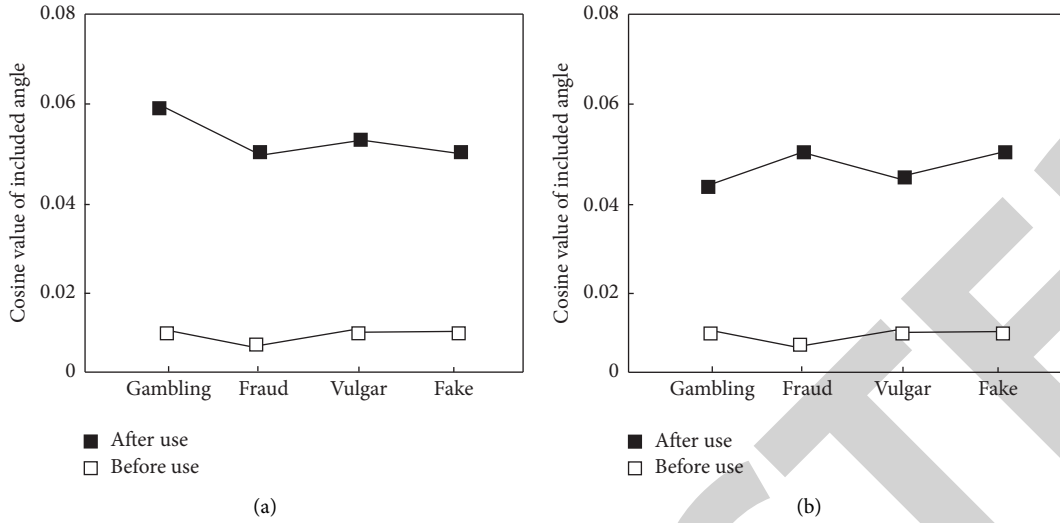


FIGURE 5: Communication effect of ideological and political curriculum, (a) basic principle of Marxism, and (b) outline of modern Chinese history.

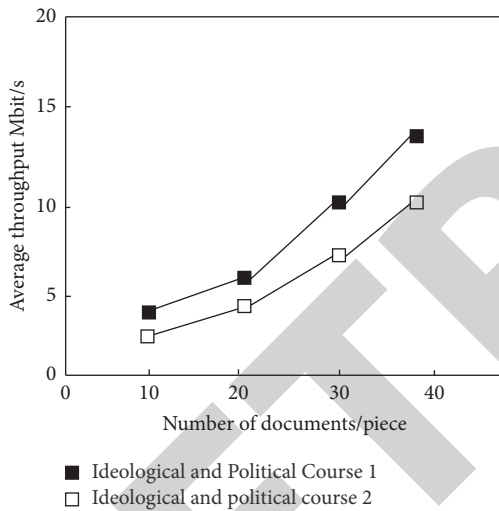


FIGURE 6: Throughput test results.

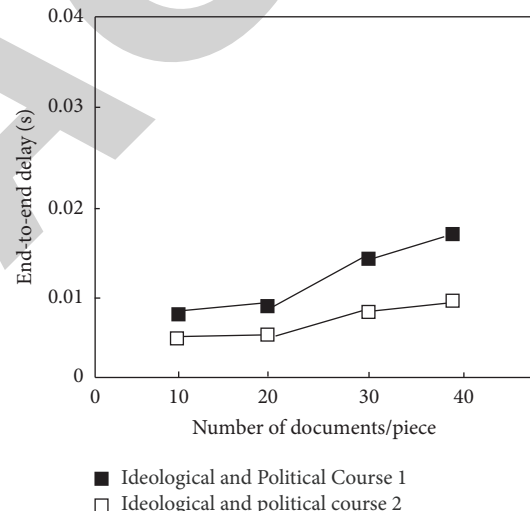


FIGURE 7: End-to-end delay test results.

counselors. In the past curriculum education, they are the communication center and even the authority in communication. Because in the educational environment of traditional media, the amount of information and awareness of teachers are much higher than that of students. Students can only obtain information and learn knowledge through classes, books, and other means. Under the impact of new media, students' ability to obtain various information has been greatly enhanced, the "knowledge gap" between teachers and students has become smaller and smaller, and some students even surpass teachers. Therefore, the dominant position and authoritative image of teachers are greatly affected. On the other hand, many ideological statements and views on the Internet, combined with social contradictions, have attracted attention and heated discussion. Instead, they have become topics of interest to young college students, further aggravating the shift of the communication center.

4.2. The Absence of New Carriers and Communication Channels. The curriculum education in colleges and universities has always hoped to reform the communication carriers and channels, and move closer to the new media, so as to improve the ability to control the new media means. In 2016, the official WeChat account of the Central Committee of the Communist Youth League officially announced its entry into Zhihu. In 2017, it officially entered the video website Bili Bili, which reflects the breakthrough and attempt of higher education to integrate into new media. However, as far as the ideological and political curriculums in colleges and universities are concerned, due to the long-term formation of the inherent model of classroom teaching and ideological and political education, even if some colleges and universities have invested in "two-micro and one-end," the overall effect is very little. Coupled with the lack of mainstream media in the construction of new media

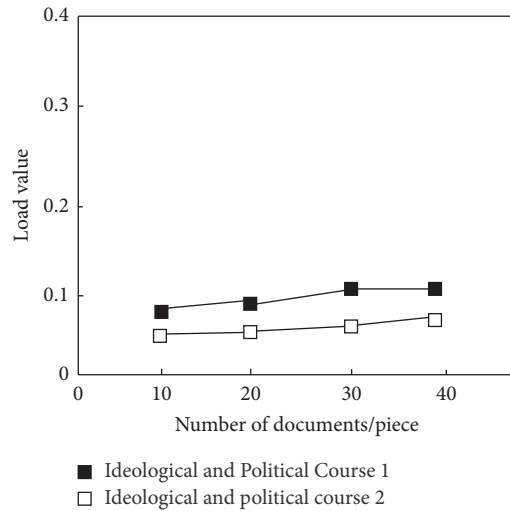


FIGURE 8: Network channel load test results.

channels, some college students are getting farther and farther away from the mainstream voice in cognition and interest.

4.3. The Supply of Knowledge Content and the Vacancy of Realistic Demand. The outdated content of curriculum knowledge communication and the rigid teaching form has become problems criticized by many college students. Relatively speaking, the content of curriculum teaching is relatively fixed and the form is relatively single, especially in the classroom. There are many ideological and political contents in the curriculum, which are simply “Ideological and political + Curriculum” grafting, and there is no real sense to excavate the ideological and political flash points and materials in the major and curriculum. In the application of new media channels, although many colleges and universities have set up an official account, official WeChat, etc., in the actual operation, these are just traditional media wearing a “New media” coat, and their role is mostly limited to publicizing policies and releasing information. Some of the ideological education sections and contents are too political, have too much theoretical communication, are far from the life of college students, and it is difficult to organically integrate with the curriculum knowledge system, which greatly reduces the attractiveness and readability of knowledge communication, let alone interaction and resonance. This kind of communication fundamentally ignores the essence of communication rather than propaganda and ignores the real needs and demands of students.

5. Conclusion

Carried out under the current new media era of ideological and political education in colleges and universities should pay attention to new technology, new media for the major effect of the ideological and political education work, the current condition, the ideological and political education should focus on new media to bring the great opportunities and challenges, and constantly promoting of the

development and application of new media in ideological and political education, new media and the ideological and political education further integration, let it truly become a powerful and effective tool and a new platform for ideological and political education in colleges and universities, further realize the innovation of ideological and political education methods and educational approaches, let the ideological and political education in colleges and universities from static to dynamic, from plane to three-dimensional, and create a new pattern of ideological and political education in colleges and universities. In order to build a prosperous, democratic, civilized, and harmonious socialist country, we will continue to train and transport excellent personnel.

Based on course education under the new media era of the transmission path for targeted research and design based on blockchain technology course education under the new media era of propagation path, the path to blockchain mode propagation course of education information and the bad information have good screen out effect, after the application of this path, it can ensure the high-quality dissemination of ideological and political course information in the new media network platform, and it will not lead to the problem of heavy load on a new media network platform.

Data Availability

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Conflicts of Interest

The authors declared that they have no conflicts of interest regarding this work.

Acknowledgments

This work was supported by the 2021 Henan Higher Education Teaching Reform Research and Practice Project “Construction and Practice of Mixed Teaching Mode of Broadcasting, Hosting and Creation in Application-Oriented Universities from the Perspective of Curriculum Ideology and Politics,” (2021SJGLX534). Research and Practice on the Reform of Ideological and Political Teaching Mode for Normal University Students Majoring in Chinese Language and Literature in Henan Province-Taking Western Literature as an Example (2022-JSJYZD-052).

References

- [1] X. L. Yao and L. L. Xiang, “The application of network interactive teaching mode in the reform of modern ideological and Political Education -- on the innovative exploration of College Students’ Ideological and political education from the perspective of new media,” *Chemical Reagents*, vol. 42, no. 04, pp. 475–485, 2020.
- [2] Y. L. Jia, “Research on the means of Ideological and political education in College Curriculum under the new media environment,” *Tea in Fujian*, vol. 41, no. 11, pp. 196–205, 2019.
- [3] Y. Zhang, J. Wang, K. Liang et al., “Practice and exploration of curriculum ideological and political education in the

- construction of online teaching teams in medical universities,” *Advances in Applied Sociology*, vol. 11, no. 04, pp. 194–199, 2021.
- [4] Y. Si, “On the influence of party history education on ideological and political education for medical students,” *Journal of Higher Education Research*, vol. 3, no. 2, pp. 141–145, 2022.
- [5] P. Wang, “Realization of the effectiveness of discurriculum in ideological and political education,” *World Scientific Research Journal*, vol. 6, no. 4, pp. 308–311, 2020.
- [6] X. Li, “Current situation and measures to improve the ideological and political education among students in higher vocational institutions,” *Journal of Contemporary Educational Research*, vol. 5, no. 5, pp. 107–110, 2021.
- [7] Y. Li, “Research on the practice of implicit ideological and political education in tertiary institutions,” *Region - Educational Research and Reviews*, vol. 3, no. 2, pp. 26–25, 2021.
- [8] F. Zeng and L. Liu, “Improving the quality of ideological and political education in colleges and universities in big data age,” *Journal of Physics: Conference Series*, vol. 1852, no. 3, pp. 032034–032044, 2021.
- [9] Y. Dang, “Teaching practice of ideological and political education in specialized courses—operations research—as an example,” *OALib*, vol. 7, no. 7, pp. 1–4, 2020.
- [10] Y. Yi and W. Dan, “The realization of ideological and political education in college English based on cultural confidence,” *Creative Education*, vol. 11, no. 11, pp. 2193–2198, 2020.
- [11] J. Kosseff, “First amendment protection for online platforms,” *Computer Law & Security Report*, vol. 35, no. 2, pp. 199–213, 2019.
- [12] H. Lu and X. X. Sang, “The practical path of security risk prevention and control in schools from the perspective of kisikogesellschaft,” *Theory and Practice of Education*, vol. 42, no. 10, pp. 24–28, 2022.
- [13] J. Chen, F. Zhao, and H. Xing, “Research on security of mobile communication information transmission based on heterogeneous network,” *International Journal on Network Security*, vol. 22, no. 1, pp. 145–149, 2020.
- [14] H. Rui, L. Huan, H. Yang, and Z. YunHao, “Research on secure transmission and storage of energy IoT information based on Blockchain,” *Peer-to-Peer Networking and Applications*, vol. 13, no. 4, pp. 1225–1235, 2020.
- [15] K. S. Aloufi, “6LoWPAN stack model configuration for IoT streaming data transmission over CoAP,” *International Journal of Communication Networks and Information Security*, vol. 11, no. 2, pp. 304–312, 2022.
- [16] L. Xin, “Optimization of load balancing scheduling model for cloud computing resources in abnormal network environment[J],” *Journal of Advanced Computational Intelligence and Intelligent Informatics*, vol. 23, no. 2, pp. 356–361, 2019.
- [17] L. H. Binh and T. V. T. Duong, “Load balancing routing under constraints of quality of transmission in mesh wireless network based on software defined networking,” *Journal of Communications and Networks*, vol. 23, no. 1, pp. 12–22, 2021.
- [18] Y. Liu, Z. Zeng, X. Liu, X. Zhu, and M. Z. A. Bhuiyan, “A novel load balancing and low response delay framework for edge-cloud network based on SDN,” *IEEE Internet of Things Journal*, vol. 7, no. 7, pp. 5922–5933, 2020.
- [19] K. Ramya, M. Sayeekumar, and G. M. Karthik, “Software defined networking based solution in load balancing for media transfer in overlay network,” *Journal of Computational and Theoretical Nanoscience*, vol. 17, no. 1, pp. 43–47, 2020.
- [20] S. A. Hashemi and H. Farrokhi, “Mobility robustness optimization and load balancing in self-organized cellular networks: towards cognitive network management,” *Journal of Intelligent and Fuzzy Systems*, vol. 38, no. 3, pp. 3285–3300, 2020.
- [21] O. T. Sule, R. Rojas-Cessa, Z. Dong, and C. B. Lin, “A split-central-buffered load-balancing clos-network switch with in-order forwarding,” *IEEE/ACM Transactions on Networking*, vol. 27, no. 2, pp. 467–476, 2019.
- [22] A. k. Et al, “Load balancing for software defined network using machine learning,” *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, vol. 12, no. 2, pp. 527–535, 2021.
- [23] Q. Geng and X. Q. Huang, “Multi-terminal adaptive load balancing algorithm simulation under cloud platform,” *Computer Simulation*, vol. 36, no. 05, pp. 386–389, 2019.
- [24] J. W. Li, J. Zhang, and J. C. Zhao, “A load balancing shortest path routing algorithm for SRIO network,” *Computer Engineering*, vol. 46, no. 03, pp. 214–221+228, 2020.
- [25] B. L. Zheng and Y. H. Li, “Study on SDN network load balancing based on IACO,” *Computer Science*, vol. 46, no. S1, pp. 291–294, 2019.
- [26] X. H. Yang, X. Zheng, and L. Liang, “Research on value implication and practical path of college ideological and political theory curriculums in the era of “Internet+,”” *E-education Research*, vol. 41, no. 12, pp. 71–78, 2020.