Effective Model of the Communication Path Conversion of Ideological and Political Education in Colleges and Universities based on New Media

Lili Li[1*]

[1]Zhejiang University of Water Resources and Electric Power 508 No.2 Ave, Qiantang District, Hangzhou 310018, China

Corresponding author: Lili Li, lili134765@outlook.com

Abstract. In order to improve the effectiveness of the communication path conversion of ideological and political (IAP) education in colleges and universities (CAV), this paper uses the original SPH method to carry out the core steps of numerical solution to disseminate IAP education data. In the implementation process of SPH method, finding nearest neighbor particles is a crucial step, which is related to the computational efficiency of numerical solution. Moreover, this paper proposes to improve the political education communication path conversion algorithm, and applies the particle information search technology to the IAP education data search and communication. In addition, this paper constructs an effective model for the communication path conversion of IAP education in CAV based on new media. From the experimental analysis, it can be seen that the effective model proposed in this paper can improve the efficiency of IAP teaching.

Keywords: new media; ideology and politics; communication path; effectiveness model.

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1 INTRODUCTION

CAV are important bases for cultivating outstanding builders and successors of society and the country. They are the main positions for ideological education work, and they are also the main battlefields for ideological and cultural integration and collision. In the ideology of CAV, "how to say" and "what to say" are the core content of its construction, and it is also the key to relieve the predicament of college ideology construction. Therefore, it is necessary to strengthen the transformation of the discourse system of ideological education in CAV, and insist on replacing boring discourses with popular, intuitive and life-like discourses. Moreover, it is necessary to build a discourse system that is close to the real life, real needs and cognitive abilities of discourse objects, so as to effectively improve the overall output quality of college ideology, expand the influence of college ideology, and stabilize the foundation of its construction [1].

Discourse is an important cultural carrier in the education ideology. Discourse conversion and expression are the main contents of the construction of the basic theory of IAP education in CAV and the construction of campus culture. This enables discourse conversion and expression to have a cultural attribute, including the fundamental goal and value of cultural education. Adhering to the principle of "cultural people" is the basic principle that IAP education in CAV has followed for a long time [2]. Discourse is the main constituent unit and element of ideology. CAV are the main positions for talent cultivation and inheritance and innovation of knowledge and culture, as well as the more concentrated positions of intellectuals. The expression of discourse needs to follow the preciseness of language expression, conform to the daily habits of Chinese expression, and never blindly pursue individuality or nothing, let alone use obscure and sensitive words and discourse, and clearly express the true meaning.

The logic should be clear, the structure should be reasonable, the form should be scientific and standardized, and the ideas conveyed should be educational, infectious and popular [3]. The influence of art is the prominent and main feature of the discourse system of ideological education in CAV. Scientific and reasonable discourse expression is the organic combination of thought and art. The expression of ideological education discourse in CAV should not be implemented by documents or meetings, and should not simply use the traditional way of "indoctrination". To constantly promote the in-depth integration of ideological education discourse expression, literary and artistic discourse, campus culture and other aspects, we should use as many personalized and characteristic languages as possible, through a long period of exploration and practice, we have formed a distinctive educational discourse expression system and style, and then imperceptibly made college ideology realize the ideal effect of moistening things silently [4].

The development of ideology has changed and innovated with the change of practice and society, and the discourse communication carrier will also strive to move forward, which leads to the pluralistic, multi-modal and multi-modal characteristics of the discourse expression of ideological education in CAV. The diversity of discourse expression is also affected by discourse content, communication media, discourse subject, discourse goal and other factors [5]. Although CAV are a special place where intellectuals are concentrated, the influence of values, interests and other aspects, to a certain extent, determines that the discourse expression of ideological education in CAV should actively explore new experiences, create new ways, continue to promote the transformation of the discourse system of ideological education, better adapt to the different development situation, and form a multi-dimensional, multi form Multi group communication of ideological education discourse [6]. While conforming to the needs of diversified development, the expression of ideological education discourse in CAV should closely combine the actual needs of the CPC Central Committee for professional talents, social expectations and the direction of talent training in CAV, deeply explore the organic combination of ideological education discourse transformation with teaching and research, teaching, management and services, and infiltrate the Marxist ideology into the whole process of moral cultivation and IAP education, Unify the ideas of teachers and students to the level of national major decisions and deployment, and to the level of innovation and development of CAV, and fundamentally realize the widespread recognition of ideas and universal adherence to values.

At present, there are two tendencies in the actual teaching process of CAV, namely, dare not say anything and dare to say anything [7]. The former mechanically analyzes the knowledge in the textbook according to the content of the textbook, confuses ideological education with general education, and simply believes that the IAP curriculum belongs to a tool discipline. Such teaching methods will certainly fail to achieve the desired teaching effect. The latter is a phenomenon that is contrary to the mainstream values in teaching. It criticizes the dominant principles and policies in an all-round way, praises the free and democratic ideas of western countries, or talks about vulgar things to cater to contemporary college students, which seriously reduces the teaching status of the original IAP curriculum. The statement of class struggle is only the product of market competition. It tells about the competition between enterprises and workers for wage labor, which is confused with the difference between capitalists and enterprises, and cannot explain in detail the fundamental reason why capitalists exploit surplus value [8]. For CAV, efforts should be made to achieve the transformation from textbooks to teaching languages, because the premise of such work as ideology, which needs to be defended, can only be that the majority of teachers are truly convinced by their deep understanding of the Marxist ideology. Unfortunately, many teachers are usually powerless to interpret real life using the basic theory of Marxism [9].

We need to give more life narrative strategies to the ideological education discourse system in CAV, and also strengthen the objective and rational criticism and reference of the network popular language. Network popular language is mainly a colloquial expression popular in the network world, which is a reflection of the mainstream culture on the network and discourse expression [10]. Behind the popular language on the Internet is the public, especially the so-called grassroots people. They have explored a common suggestion among different social conflicts and contradictions and tried to express it in a more understandable language form. Popular language on the Internet has a profound and important impact on contemporary society, which is particularly evident in contemporary college students [11]. It should be obvious that the focus of popular language on the Internet is changing quietly, from the initial light teasing, to the wanton catharsis, to the focus on social hot topics in recent years.

These changes, on the one hand, reflect the continuous improvement of the quality of the vast number of Internet users, especially college students who have gradually become the main force of the Internet, on the other hand, with the frequent occurrence of social hot events in recent years It is related to the objective reality that there are many social contradictions [12]. Under the background that modern informatization has become the trend of social progress in the new era, although network popular language is not the mainstream spiritual culture of society, it can truly reflect the inner voice of netizens, especially grass-roots groups. In this regard, CAV must attach great importance to the relationship between the ideological education discourse system and the network popular language. Teachers classify the network popular language on the basis of ensuring their own clear awareness and close attention [13]. We should always adhere to the guidance of Marxism and keep a clear understanding in the process of expanding the discourse system. We should firmly draw a clear line with those vulgar and extreme popular expressions, and be alert to their negative impact on the mainstream educational discourse system at any time [14]

Based on the new media technology, this paper constructs an effective model for the communication path conversion of IAP education in CAV, and improves the auxiliary teaching role of the intelligent system of IAP education.

2 IAP EDUCATION COMMUNICATION ALGORITHM

2.1 The Core Formula of the SPH Method

The core formula of smooth particle hydrodynamics (SPH) method is mainly obtained by two steps: integral representation (IR) with function approximation and particle approximation with function discretization.

The essence of the IR of a function is to use integral to approximate the function. Because the kernel function (KF) plays a crucial role in the integral approximation process The IE obtained by the IR is the basic formula of discretization, that is, before using the particle to discretize the function, it is necessary to use the IR to approximate and represent the function.

Definition 1: In the SPH method, the integral expression (IE) of the function $f(\mathrm{r})$ at any point $\mathrm{r}\left(x_1, x_2, x_3, \cdots x_n\right)$ in the n-dimensional space is:

$$f(\mathrm{r})=\int_{\Omega} f(\mathrm{r}')\delta(\mathrm{r}-\mathrm{r}')d\mathrm{r}' \tag{2.1}$$

Among them, f is the function of the n-dimensional coordinate vector r, Ω represents the integral volume containing r.

$$\delta(\mathrm{r}-\mathrm{r}')=\begin{cases}1, & \mathrm{r}=\mathrm{r}' \\ 0, & \mathrm{r}\neq\mathrm{r}'\end{cases} \tag{2.2}$$

From the formula (1) in Definition 1, it can be known that the function can be written in the form of integral by using the Dirac function. The properties of the Dirac function determine that the IE (1) of the continuous function $f(\mathrm{r})$ is accurate, that is, the formula (1) is an formula rather than a sub-formula. The IE of $f(\mathrm{r})$ can be rewritten as:

$$f(\mathrm{r})\approx\int_{\Omega} f(\mathrm{r}')W(\mathrm{r}-\mathrm{r}',h)d\mathrm{r}' \tag{2.3}$$

Among them, W is the smooth function, also known as the KF; h is the smooth length, and the smooth length can determine the support domain of the smooth function. It is necessary to distinguish the smooth function W from the Dirac function. After the distinction, it is found that there should be an approximately equal sign instead of an equal sign in formula (3). If it is assumed that the angle bracket $\langle\ \rangle$ represents the approximation operator of the integral notation, then formula (3) can be transformed into:

$$\langle f(\mathrm{r})\rangle=\int_{\Omega} f(\mathrm{r}')W(\mathrm{r}-\mathrm{r}',h)d\mathrm{r}' \tag{2.4}$$

It is necessary to remember to distinguish from (3), that is, the angle brackets have already expressed the approximation of the function, then (4) should be an formula. This formula is the final expression of the integral notation introduced in this subsection.

From the previous definition and analysis, we can know that the choice of the smooth function W will affect the entire approximation process. In fact, in the specific implementation, the even function is preferred as the smooth function. In addition, the smooth function also needs to satisfy several conditions listed below in most cases.

(1) The regularization condition:

$$\int_{\Omega} W(\mathrm{r}-\mathrm{r}',h)d\mathrm{r}'=1 \tag{2.5}$$

Since the integral value of the smooth function is equal to 1, this condition is also called the normalization condition.

(2) Strong peak function property, that is, when the smooth length tends to zero, it has the Dirac function property:

$$\lim_{h\to 0} W(\mathrm{r}-\mathrm{r}',h)=\delta(\mathrm{r}-\mathrm{r}') \tag{2.6}$$

(3) The compactness condition, that is, the smooth function is equal to 0 outside the support domain:

$$W(\mathrm{r}-\mathrm{r}',h)=0,|\mathrm{r}-\mathrm{r}'|>\kappa h \tag{2.7}$$

Among them, κ is a constant coefficient that together with the smoothing length h determines the support field at r.

(4) Non-negative condition:

$$W\left(\mathrm{r}-\mathrm{r}',h\right)\geq 0 \tag{2.8}$$

(5) Symmetry condition:

$$W\left(\mathrm{r}-\mathrm{r}',h\right)=W\left(\mathrm{r}'-\mathrm{r},h\right)=W\left(\left|\mathrm{r}-\mathrm{r}'\right|,h\right) \tag{2.9}$$

(6) The decay condition, that is, the value of the smooth function shows a monotonically decreasing trend with the increase of the particle spacing.

If a part of the support domain is not within the problem domain, that is, the support domain includes the boundary of the problem domain, as shown in Figure 1 and 2. At this time, since the boundary of the smooth function W is not outside the support domain, the integral of the first term on the right side of the equation (18) is no longer equal to zero. That is, for formula (19) to be established, the support domain needs to be satisfied within the problem domain. However, in the process of numerical solution, Equation (19) is often used directly as the IE of the derivative of the function, so that there will be the problem of missing particles at the boundary of the solution region, and the accuracy of the final result will naturally be relatively insufficient. Many scholars are also aware of the existence of this problem, so the original SPH method is generally modified to make up for the problem caused by the lack of particles, and then the modified SPH method is used to solve the problem numerically.

It can be known from the above analysis that, after a series of operations including the application of the divergence theorem and the integral transformation, the derivative of the field function in the IE of the derivative of the field function can finally be transferred to the smooth function. That is, the IE of the derivative of the field function does not have the derivative term of the field function, but only the function value of the field function and the derivative function value of the smooth function are determined. In this way, there is no need to place too high requirements on the continuity of the field function.

The particle approximation method is mainly a process of discretizing the expressions (such as equations (4) and (19)) obtained by the IR. The core idea of particle approximation is to approximate continuous IEs by superposition summation of function values at each discrete particle in the support domain. It is worth noting that the particles in the particle approximation method have independent material properties, that is, with physical quantities such as mass and density, so the process of particle approximation needs to take this factor into consideration. The process of particle approximation is shown in Figure 3.

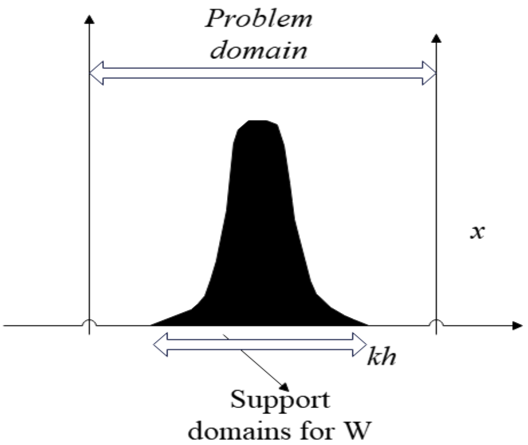

Figure 1: The support domain of the smooth function W is completely within the problem domain.

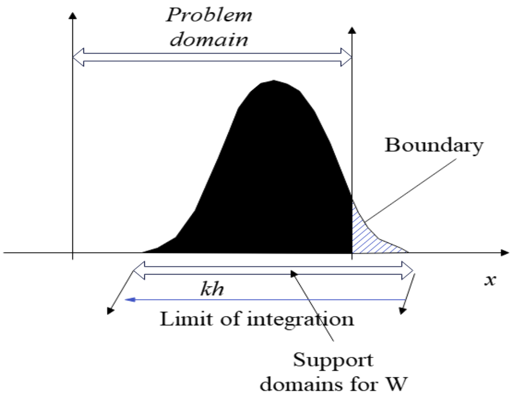

Figure 2: The support domain of the smooth function W is not completely within the problem domain.

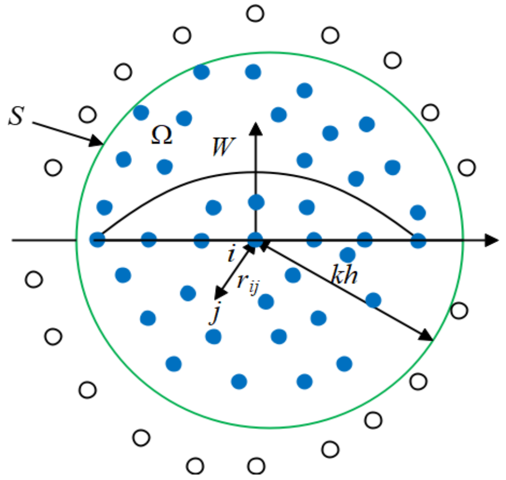

Figure 3: The scope of action of the KF in particle approximation.

Definition 3: In the SPH method, the particle approximations of function $f(\mathrm{r})$ and its spatial derivative $\nabla f(\mathrm{r})$ at particle i are:

$$\left\langle f\left(\mathrm{r}_i\right)\right\rangle = \sum_{j=1}^{N} \frac{1}{np_j} f\left(\mathrm{r}_j\right) W_{ij} \tag{2.10}$$

$$\left\langle \nabla f\left(\mathrm{r}_i\right)\right\rangle = \sum_{j=1}^{N} \frac{1}{np_j} f\left(\mathrm{r}_j\right) \nabla_i W_{ij} \tag{2.11}$$

Among them, $W_{ij} = W\left(\mathrm{r}_i - \mathrm{r}_j, h\right)$; np_j represents the density number corresponding to the j-th particle; $\nabla_i W_{ij} = -\nabla W_{ij}$.

The specific implementation process of the particle approximation method is as follows:

The differential $d\mathrm{r}_j$ at the particle j can be replaced by the volume ΔV_j of the particle. From the particle approximation method, it can be known that the particle has physical properties such as mass and density. Therefore, the density of particle j can be set as $\rho_j(j=1,2,\cdots,N)$, where N represents the total number of particles in the support domain of particle i to be solved. If the mass of particle j is m_j, the differential $d\mathrm{r}_j$ at particle j can be expressed as: $d\mathrm{r}_j=\Delta V_j=\frac{m_j}{\rho_j}$.
From the above analysis, it can be seen that the particle approximation of the field function $f(\mathrm{r})$ can finally be obtained by the discretized function IE:

$$\begin{aligned}\langle f(\mathrm{r})\rangle &= \int_{\Omega} f(\mathrm{r}')W(\mathrm{r}-\mathrm{r}',h)\,d\mathrm{r}' \approx \sum_{j=1}^{N} f(\mathrm{r}_j)W(\mathrm{r}-\mathrm{r}_j,h)\Delta V_j \\ &= \sum_{j=1}^{N} f(\mathrm{r}_j)W(\mathrm{r}-\mathrm{r}_j,h)\frac{m_j}{\rho_j}\end{aligned} \tag{2.12}$$

In order to find the particle approximation formula at particle i, we can substitute r_j into formula (12), and finally we can get:

$$\langle f(\mathrm{r}_i)\rangle = \sum_{j=1}^{N}\frac{m_j}{\rho_j} f(\mathrm{r}_j)W_{ij} \tag{2.13}$$

Among them, $W_{ij}=W(\mathrm{r}_i-\mathrm{r}_j,h)$.

It can be seen from formula (13) that the field function value at a particle can be obtained by the weighted summation of the field function value of all particles in the particle support domain and the function value of the smooth function.

With reference to the above analysis process, the particle approximation expression of the derivative of the field function can be obtained naturally:

$$\langle \nabla f(\mathrm{r})\rangle = -\sum_{j=1}^{N}\frac{m_j}{\rho_j} f(\mathrm{r}_j)\nabla W(\mathrm{r}-\mathrm{r}_j,h) \tag{2.14}$$

In the above particle approximation equation, the derivative ∇W of the smooth function is the derivative of the particle j. According to the specific expression of the derivative of the KF, we can transform the derivation of particle j into the derivation of particle i. This operation can remove the negative sign in front of the particle approximation expression of the derivative of the field function, which provides a certain convenience for the numerical solution. The particle approximation expression for the derivative of the final field function is:

$$\langle \nabla f(\mathrm{r}_i)\rangle = -\sum_{j=1}^{N}\frac{m_j}{\rho_j} f(\mathrm{r}_j)\nabla W_{ij} = \sum_{j=1}^{N}\frac{m_j}{\rho_j} f(\mathrm{r}_j)\nabla_i W_{ij} \tag{2.15}$$

Among them,

$$\nabla_i W_{ij} = -\nabla W_{ij} = \frac{\mathrm{r}_i-\mathrm{r}_j}{r_{ij}}\frac{\partial W_{ij}}{\partial r_{ij}} = \frac{\mathrm{r}_{ij}}{r_{ij}}\frac{\partial W_{ij}}{\partial r_{ij}} \tag{2.16}$$

In formula (16), r_{ij} is the distance between particle i and particle j, that is, $r_{ij}=\left|\mathrm{r}_{ij}\right|=\left|\mathrm{r}_i-\mathrm{r}_j\right|;\nabla_i W_{ij}$ indicates that the gradient operation of the KF is related to particle i.

It can be seen from formula (15) that the spatial derivative value of the field function at particle i has been transformed into the summation operation of the product of the KF gradient and the particle function value in the support domain.

To sum up, it can be seen from equations (13) and (14) that the process of particle approximation reflects that the SPH method is a particle-based meshless particle method. That is, the field function and the derivative of the field function can be discretized in the spatial direction through the superposition and summation of the particles. It is obvious that the particle approximation process does not require meshing, which is the main factor that differentiates the SPH method from the traditional mesh-based method.

2.2 Smooth Function

The SPH method is expressed by using a smooth function for integration, so the smooth function plays a crucial role in the SPH method. The parameter smooth function in the smooth function can determine the range of the support domain. Since the gradient term of the IE of the derivative of the field function is on the smooth function, the smoothness of the smooth function will also affect the accuracy and stability of the numerical solution. In the actual solution, there are many smooth functions to choose from, so this section mainly introduces several popular smooth functions.

(1) Gaussian smooth function:

$$W(R,h)=\alpha_d e^{-R^2} \tag{2.17}$$

The α_d in the formula is a coefficient matched to make the smooth function have normality, which is $\frac{1}{\pi^{1/2}h},\frac{1}{\pi h^2},\frac{1}{\pi^{3/2}h^2}$ in one-dimensional, two-dimensional and three-dimensional space respectively; $R=\frac{r}{h}=\frac{|r-r\prime|}{h}$ represents the relative distance between particles, where r is the distance between two points; h represents the smooth length.

Due to its sufficient smoothness, the Gaussian smooth function has a good performance in both stability and numerical accuracy during numerical simulation. Sufficient smoothness also determines that Gaussian smooth functions can be used to solve higher-order derivatives. In fact, the Gaussian smooth function can also maintain a good solution effect under the condition of uneven particle distribution. The Gaussian smooth function itself also has some shortcomings in application, which is mainly manifested in the relatively large support field. The large support domain contains more particles, which leads to an increase in the amount of computation, and reduces the computational efficiency of numerical solutions in practical applications.

(2) Cubic spline smooth function: Cubic spline smooth function is derived from cubic spline function, also known as B-spline smooth function.

$$W(R,h)=\alpha_d\begin{cases}2/3-R^2+(1/2)R^3, & 0\le R\le 1\\(1/6)(2-R)^3, & 1\le R\le 2\\0, & R\ge 2\end{cases} \tag{2.18}$$

Among them, the coefficient α_d is $\frac{1}{h},\frac{15}{7\pi h^2},\frac{3}{2\pi h^3}$ in one-dimensional, two-dimensional and three-dimensional space respectively.

The difference between the cubic spline smooth function and the Gaussian smooth function is that the support domain of the cubic spline smooth function is much smaller. However, the cubic spline smooth function and its first derivative can have smoothness comparable to the Gaussian smooth function in a small support field. The second-order derivative of the smooth function is piecewise, which indicates that the cubic spline smooth function is not good for dealing with higher-order derivatives.

(3) Quintic spline smooth function: The quintic spline smooth function not only has the smoothness close to the Gaussian smooth function, but also has better stability when dealing with higher-order derivatives than the cubic spline smooth function.

$$W(R,h)=\alpha_d\begin{cases}(3-R)^5-6(2-R)^5+15(1-R)^5, & 0\le R<1\\(3-R)^5-6(2-R)^5, & 1\le R<2\\(3-R)^5, & 2\le R<3\\0, & R>3\end{cases} \tag{2.19}$$

The coefficient α_d is $\frac{1}{120h},\frac{7}{478\pi h^2},\frac{3}{359\pi h^3}$ in one-dimensional, two-dimensional, and three-dimensional spaces, respectively.

(4) Wendland smooth function:

$$W(R,h)=\alpha_d\begin{cases}(2-R)^4(2R+1), & 0\le R<2\\0, & R\ge 2\end{cases} \tag{2.20}$$

Among them, the coefficient α_d is $\frac{7}{64\pi h^2},\frac{21}{2^{11}\pi h^3}$ in two-dimensional and three-dimensional space.

2.3 Particle Search Technology

In the SPH method, the solution of the partial differential equation is achieved by the summation of the particles in the compact support domain of the smooth function, so some search techniques are needed to determine which particles are contained in the support domain before approximation. In connection with the adaptability of the SPH method mentioned above, it can be seen that the distribution of particles may change in each time step, and the particle search is based on the particle distribution state at this time. Therefore, from the perspective of particle search technology, the SPH method is more flexible and adaptable. Several popular particle search techniques are described below.

(1) Full pair search method

If it is assumed that particle i is to be searched for nearest neighbors in the support domain κh, the algorithm steps of the full pair search method in this case are as follows:

Algorithm 1 Full pair search algorithm

(i) The algorithm calculates the distance r_{ij} between particle i and all particles $j(j=1,2,\cdots,N)$ in the problem domain;

(ii) The algorithm judges the quantitative relationship between r_{ij} and the radius κh of the support domain. If $r_{ij}<\kappa h$, then the particle at j is the nearest neighbor particle of particle i.

Since the full pair search method is to directly search all particles in the problem domain, it is also called the direct search method. Obviously, the complexity order of the full pair search method is $O(N^2)$. Figure 4 shows the specific operation method of the full pair search method. The full pair search method has the advantage of being simple to implement, but since this method needs to search all particles in the problem domain once in each time step, it can be seen that the computational efficiency is general.

(2) Linked list search method

If it is assumed that the nearest neighbor particle search for particle i is to be performed in the support domain κh, the algorithm steps of the linked list search method in this case are as follows:

Algorithm 2 Linked list search algorithm

(i) The algorithm divides the problem domain into equal meshes, and the size of each element mesh is κh;

(ii) The algorithm calculates the distance r_{ij} between particle i and all particles j in the cell grid and adjacent cell grids;

(iii) The algorithm judges the quantitative relationship between r_{ij} and the support domain radius κh. If $r_{ij} < \kappa h$, then the particle at j is the nearest neighbor particle of particle i.

It can be seen from the algorithm description of the linked list search method that the algorithm does not need to traverse all the particles in the problem domain, and obviously the calculation amount is much smaller than that of the direct search method. Moreover, the algorithm can reach the complexity order of O(N) when the meshing is sufficiently small. However, it should be noted that the algorithm depends on the size of the support field radius, so the applicability of the algorithm should be reconsidered for the problem that the support field size is not fixed. The specific operation method of the linked list search method can refer to Figure 5.

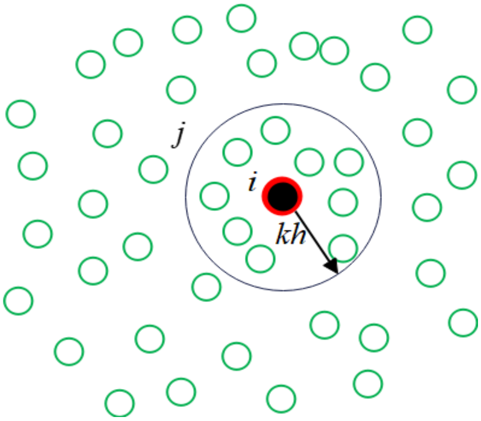

Figure 4: Direct search method.

3 EFFECTIVE MODEL OF THE COMMUNICATION PATH CONVERSION OF IAP EDUCATION IN CAV BASED ON NEW MEDIA

The influence of network topology on dynamics has long been studied. The structure of social network is the structural basis for the study of IAP education information communication and the evolution of public opinion. The topological structure of IAP education network should be selected as the underlying network as possible in accordance with the actual network type. The schematic diagram of attitude tendency and information communication is shown in Figure 6.

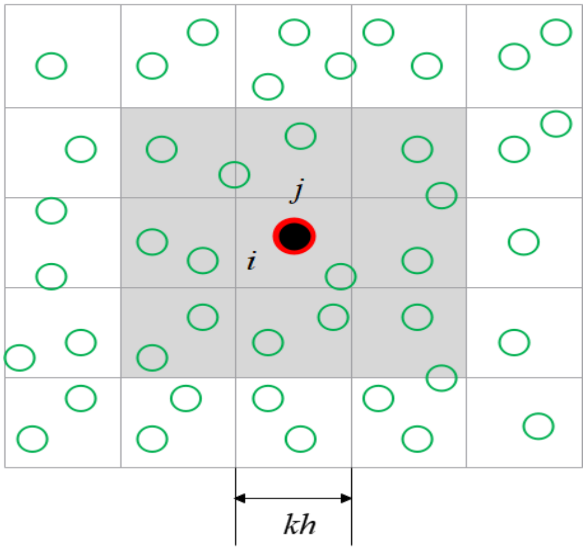

Figure 5: Linked list search method.

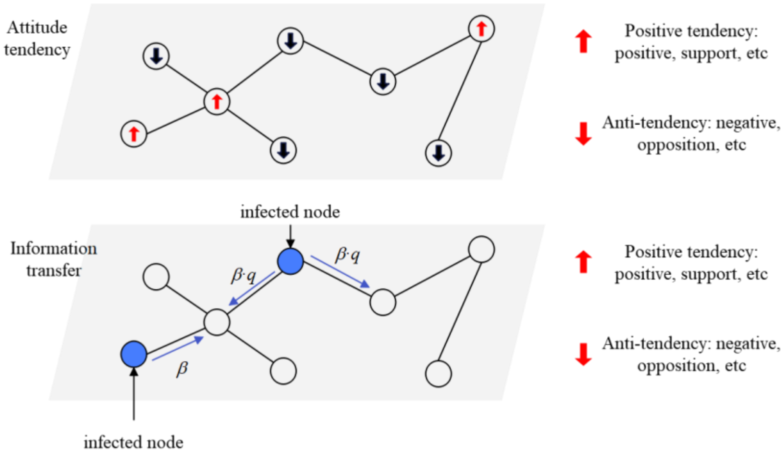

Figure 6: Schematic diagram of attitude tendency and information communication.

This paper proposes a multi-source knowledge base index alignment algorithm for IAP education based on BERT, which effectively utilizes the semi-structured and unstructured information of entities in the encyclopedia knowledge base to achieve entity alignment of multi-source heterogeneous knowledge bases. Moreover, this paper proposes two index construction methods on this basis, which effectively improves the efficiency and recall rate of entity alignment. The entity alignment framework is shown in Figure 7.

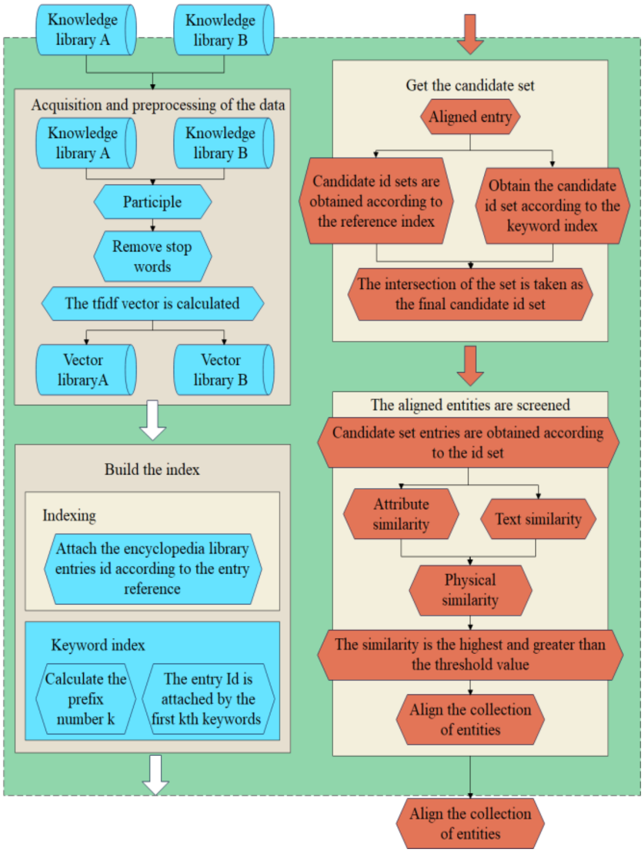

Figure 7: Entity alignment framework.

After constructing the effective model of the communication path conversion of IAP education in CAV based on new media, this paper examines the information dissemination effect of the model. The collected flow distribution diagram is shown in Figure 8. It can be seen from Figure 8 that the queue size not only increases in a certain interval, but gradually decreases after that.

Based on the analysis in Figure 8, the effectiveness of the effective model of the communication path conversion of IAP education in CAV based on new media proposed in this paper is verified, and the practical performance of the model is calculated, and Table 1 is obtained.

From the above analysis, we can see that the effective model of the communication path conversion of IAP education in CAV based on new media proposed in this paper can effectively improve the effect of IAP education.

4 CONCLUSIONS

The ideological construction of CAV uses too much political language, communication language, policy and abstract academic language, and the discourse expression is monotonous, rigid, mechanized, completely ungrounded, and lacks a certain affinity. This results in an unsatisfactory final effect and the inability to achieve the purpose of disseminating education, making the combination of the state and individual will a key issue facing the ideological construction of CAV.

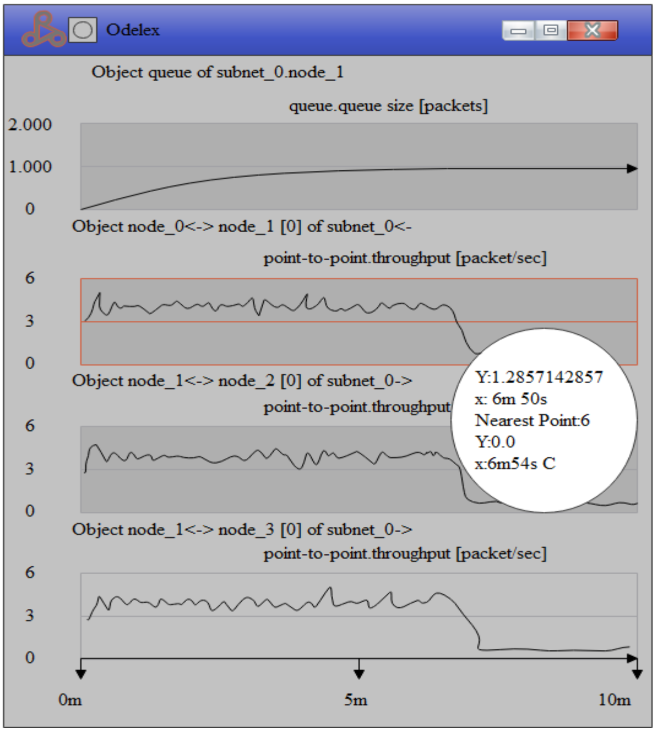

Figure 8: Queue traffic changes of model as the load increases.

Num	Validity	Num	Validity
1	86.2055	14	85.5223
2	85.5841	15	86.4764
3	83.5964	16	87.7279
4	86.0098	17	81.9081
5	84.4017	18	83.3033
6	80.1898	19	86.5373
7	85.5997	20	78.1474
8	86.2142	21	80.1633
9	82.4170	22	82.7330
10	78.0073	23	80.2952
11	85.6244	24	81.4672
12	83.0029	25	79.1020
13	86.9894	26	86.0926

Table 1: Test of the performance of the effective model of the communication path conversion of IAP education in CAV based on new media.

Ideological work is an important work in education, which is related to the security and stability of the country, the harmonious development of society and the quality of personnel training in CAV. Based on the new media technology, this paper constructs an effective model for the communication path conversion of IAP education in CAV, and improves the auxiliary teaching role of the IAP education intelligent system. It can be seen from the experimental analysis that the effective model of the communication path conversion of IAP education in CAV based on new media proposed in this paper can improve the efficiency of IAP teaching.

Lili Li, https://orcid.org/0000-0002-2195-4386

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