

Research on Dynamic Grasp Methods of Ideological and Political Education from the Perspective of Intelligent Data Analysis Platform

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Abstract: The combination of artificial intelligence technology and ideological and political education is an important form of education aimed at cultivating students' correct ideological and political awareness. This form of education is particularly important in Chinese universities because it can help students better understand and adapt to China's social and political environment. In these educational activities, teachers need to adopt a variety of teaching methods, including lectures, discussions, case studies, etc., in order to enable students to better understand and master relevant knowledge. In addition, teachers also need to focus on the cultivation of students' practical and innovative abilities in order to enable them to better cope with future challenges. In short, ideological and political education is a very important task that requires the joint efforts of teachers and students in order to make contributions to China's future development.

Keywords-Ideological and political education; Dynamic grasp; Data analysis

1 Introduction

The combination of artificial intelligence and ideological and political education is a new educational model aimed at improving the effectiveness and efficiency of ideological and political education through artificial intelligence technology. This educational model can use artificial intelligence technology to analyze students' learning situations and habits, in order to better provide them with personalized educational services. At the same time, artificial intelligence technology can also help teachers better manage and evaluate students' learning outcomes, in order to better guide their learning[1]. In addition, artificial intelligence technology can also help teachers better design and conduct ideological and political education activities to better meet the needs and interests of students. For example, artificial intelligence technology can be used to develop virtual reality education scenarios, allowing students to experience historical events and political decision-making processes more immersively, thereby better understanding and mastering relevant knowledge. In short, the combination of artificial intelligence and ideological and political education is a very promising educational model that can help students better understand and adapt to the social and political environment, while also improving the effectiveness and efficiency of education.

2 Research Status

Through reviewing the literature, it is found that foreign scholars have elaborated on the concept of new media from the following perspectives: First, understand the concept of new media from the technical level. Steve Jones has reasonably explained the origin of ideas and technology by interpreting new media related concepts, works, relevant characters, research results, etc. Levy Mannovich believes that "new media is simply a media technology that uses a set of unrelated digital information to display in corresponding media forms based on people's different levels of needs, and is essentially a digital based information flow.". The second is to understand the concept of new media from the perspective of communication. Roger Federer combed the process of media transformation from the perspective of media, and analyzed the forms and manifestations of new media. Scholars such as Rolles also believe that new media is a communication technology that uses the network as a communication carrier. Regarding the characteristics of new media, Van Klausby believes that new media has the broad dissemination of information and the main control of content editing. The most representative point of view is that of Levy Mannovich, who believes that new media has the characteristics of digital technology (i.e., digitization, modularization, automation, variability, and transcoding), and based on this, it presents the characteristics of hypermedia technology, openness of space, interactivity of subjects, and virtuality of communication.[2-3].

From a global perspective, ideological and political education is a concept with Chinese characteristics. Although there is no similar formulation of the concept of ideological and political education in foreign countries as in China, western developed countries strengthen the function of ideology through educational courses such as political education, civic education, moral education, and value education[4-5]. Therefore, the development of new media has a significant impact on politics, morality, education, and values. One is about the political impact of the development of new media. Habermas believes that new media is constructing a "public sphere" for the public to participate in politics and deliberation. In this public sphere, people can participate in discussions around issues such as social and livelihood issues, and provide a virtual community for civil society and the state to form a connection through public opinion. Therefore, the development of new media represented by social media may cause changes in the political ecology of the country[6-7]. For example, in the US presidential election, social media such as Twitter have carried a flat political organization mechanism and played an important role in public political participation, collective action, and public opinion struggles[8]. The second is about the impact of the development of new media on morality. Lawrence Kohlberg believes that once schools establish an unconventional concept of character education, it can have a positive impact on moral development. Robert A (Nisbet) pointed out that network technology can cause phenomena such as network crime, network emotional indifference, network moral relativism, and the proliferation of false information, affecting the development process of human morality. Foreign scholars mainly focus on the negative impact of new media technology on civic morality, especially the phenomenon of moral misconduct, but they also do not deny the positive role of new media technology. Therefore, we should draw on the achievements of foreign countries' analysis and research on online citizen morality to study China's citizen moral education in the new media era. The third is about the impact of the development of new media on education. The research in this field in Western countries is mainly carried out through media literacy education. As the main birthplace of media literacy

education, the UK has achieved fruitful theoretical results. Ryan Masterman Len Masterman proposed that there are three historical paradigms in media literacy education, namely, the immune paradigm, the popular art paradigm, and the reproduction paradigm. He believes that through media literacy education, teenagers can develop the ability to distinguish between the pros and cons of information and occupy the position of mainstream ideology[9-10].

3 Design of dynamic system

System framework refers to the abstraction and encapsulation of some common functional modules to form a reusable software architecture in software development in order to improve development efficiency and code reusability. The structure of a system framework typically includes the following aspects:

Module division: A system framework is typically composed of multiple modules, each responsible for different functions. Modules communicate through interfaces to achieve decoupling between modules.

Interface Definition: Each module in the system framework has its own interface, which defines the functions and services provided externally by the module. The design of the interface should be as simple, clear, easy to use, and extensible as possible.

3. Data Structure: The data structure in the system framework refers to the format and type of data transferred between modules. The design of data structures should take into account data security, scalability, and ease of use.

4. Control process: The control process in the system framework refers to the calling relationship and execution sequence between modules. The design of the control process should be as simple, clear, understandable, and maintainable as possible.

5. Error handling: Error handling in the system framework refers to the handling of error situations that occur when transferring data between modules. The design of error handling should take into account the type, level, and handling of errors.

6. Logging: In the system framework, logging refers to recording important information and error information during system operation. The design of logging should consider the format, level, and storage method of logs.

Security: Security in the system framework refers to the ability to protect a system from malicious attacks and illegal access. The design of security should take into account the vulnerabilities and attack methods of the system, and take corresponding security measures.

In summary, the structure of the system framework should be simple, clear, easy to understand and maintain, and should also have good scalability and reusability.

The business logic program mainly analyzes the operation process of each functional module in the system and completes the whole process of dynamic grasp of Ideological and political education in a logic driven manner. The business logic program in this system includes input processing program, data extraction program and auxiliary training program.

The main reason for the poor effect of the previous training system is that the system can not effectively compare the training degree and the differences in the training effect, resulting in the user can not fully understand his limitations. Therefore, for subsequent comparative analysis, the data extraction program is the core program of the system. The specific procedures are as follows:

Step 1: receive training files and decode them;

Step 2: split training data;

Step3: extract features. The periodic characteristic parameters are extracted by using autocorrelation function. The extraction formula is as follows:

$$f_i(k)^1 = \sum_{t=1}^N x_i(t) x_i(t+k) \quad (1)$$

$f_i(k)^1$ represents the pitch period of the signal; k Represents the delay amount of time; N Represents the frame length; $x_i(m)$ Generation training signal; t Represents time.

Mel cepstrum coefficients are extracted by Mel filter. The extraction formula is as follows:

$$f_i(k)^2 = \sum_{i=0}^M G(i) \cdot \sin\left(\frac{n\pi}{M}\right) \quad (2)$$

$f_i(k)^2$ represents the i Mel cepstrum coefficient of the segment signal; $G(i)$ represents the logarithmic energy output by the second Mel filter;

The formant frequency is extracted by linear predictive coding. The extraction formula is as follows:

$$f_i(k)^3 = \frac{F(L_i)}{2\pi} \cdot T \quad (3)$$

$f_i(k)^3$ represents the formant frequency; T Represents the signal sampling period; F Represents a prediction error filter; L_i Represents the signal bandwidth

Step4: multi feature fusion and normalization.

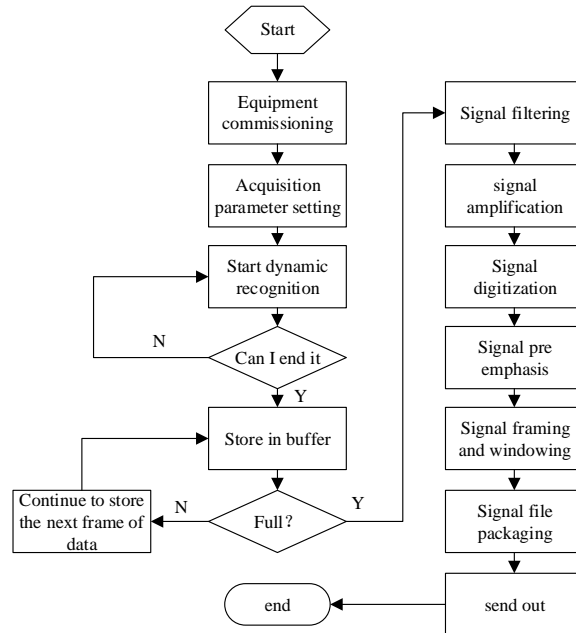


Figure 1 overall process of the system

4 Experiment

Calculate the dynamic grasp of Ideological and political education of 20 students and calculate the scores. The results are shown in Table 1:

Table 1 system calculation results

Student	Comprehensive score
1	0.94
2	0.81
3	0.87
4	1.22
5	0.81
6	1.57
7	0.62
8	0.92
9	0.76
10	1.19
11	0.71
12	0.65
13	0.84
14	0.93

15	0.91
16	0.57
17	0.54
18	0.66
19	0.92
20	0.72

It can be seen from table 1 that the ideological and political education of about 80% of the 20 students can be effectively grasped after the application of the system.

Through the in-depth analysis of this article, we can find that the development logic of Ideological and political education is to adapt to the situation and tasks, adapt to the changes of the situation and tasks, and keep pace with the times. With the deepening development of social transformation and military reform, great changes have taken place in the environment, object, scope and mode of Ideological and political education, which puts forward new and higher requirements for ideological and political education. Therefore, it is necessary to expand the content of education, make efforts to promote the scientization of the content system of Ideological and political education, plan the educational activity plan, and timely compare the standards and tables with the spirit of the superiors to ensure that the arrangement of educational content conforms to the spirit of the superiors; We should draw up education plans in a scientific way, and organically integrate periodic special education, regular ideological education, and situation and policy education, so as to truly make ideological and political education condense people's minds and stimulate motivation. Innovate methods and means, actively develop and utilize new technologies and new carriers, and improve the scientific and technological content of Ideological and political work.

5 Conclusion

- (1) The system proposed in this study focuses on the overall grasp of the situation by picking up the students' thoughts. After the comparison and analysis of the system and the standard situation, the training suggestions are given.
- (2) After repeated correction, the system proposed in this study achieves the purpose of training. After testing, the system has good auxiliary training function and meets the system design goal.

References

- [1] Tang Qi. (2020) Improvement of the participation of Ideological and political educators in training [J]. Times report, 05: 150-151
- [2] Jin Shutong. (2020) Research on Ideological and political education in continuing education and training [J]. Inner Mongolia Education, 11: 14-15
- [3] Xu Ling. (2019) Practical discussion on Ideological and political education for vocational training trainees [J]. Vocational technology, 18 (09): 64-67.
- [4] Ding Ling. (2019) Analysis on the ideological and political education and training methods of

- college student party members in the new era [J]. *Intelligence*, 15: 116
- [5] Wang Jian. (2018) A brief discussion on the promotion of training on the ideological and political education of employees [J]. *Shanxi Agricultural Economics*, 11: 120 + 133.
- [6] Wu Gang. (2013) On how to strengthen the ideological and political education of trainees [J]. *Qiushi*, S1: 221-222.
- [7] Gao Jingqi, Shi Lianxiang. Research on the development of Ideological and political education in Colleges and universities in Hebei Province in the early days of the founding of the people's Republic of China [J]. *Journal of College of adult education, Hebei University*, 2022,24 (02): 105-111.
- [8] Wang Qin Research on the construction of Ideological and political education community in Colleges and universities [D]. *Guizhou Normal University*, 2022.
- [9] Zhang Jie, Duan Xinghua, Ding Kai. Analysis of research hotspots of Ideological and political education based on knowledge map [J]. *JOURNAL OF INNER MONGOLIA AGRICULTURAL UNIVERSITY (SOCIAL SCIENCE EDITION)*, 2022,24 (02): 46-52.
- [10] Mu Chengli. Objectives and principles of Ideological and political education for graduate students in the new era [J]. *Journal of Inner Mongolia Normal University (PHILOSOPHY AND SOCIAL SCIENCES)*, 2022,51 (01): 19-24