Fusion Development of Ideological and Political Teaching with Information Technology in the Big Data Era

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Abstract. The fusion of ideological and political teaching with the information technology is an inevitable trend in the “big data era”. After fusion with information technology, ideological and political teaching not only highlights the new technology in form but the nature, value and function of ideological and political teaching have also changed tremendously. However, compared with the requirements for their deep fusion, there are still some problems at present. The relationship between them is still “combination”, not fusion. The goal of fusion includes many aspects, such as the relative decrease in the teaching modes, the disappearance of online education concept, the emergence of customized learning, etc. The fusion strategy of ideological and political teaching with the information technology is mainly converting ideas, conduct in-depth study, improving the application skills of teachers through multiple methods, strengthen subject teaching research and application guidance and necessary information technology support, to provide a new perspective for the fusion of ideological and political teaching with information technology.

Keywords: Big Data, Information Technology, Ideological and Political Teaching, Fusion

1. Introduction
The information storm brought by “big data” has opened a new era, is changing our life, work, and thinking, and puts forward a new challenge to human cognition and the way of communication with the world. Gary King, a professor of sociology at Harvard University, once said, “this is a revolution[1-2]. The huge data resources have started the process of quantification in various fields, including academia, business, and government.” Because of its special value in the “big data era”, education has attracted much attention in this “process”[3-4]. How can education not only benefit from the big data era but also become an essential factor in promoting the process of the big data era? According to the close relationship between big data and information technology, the primary
condition for the development of education in the big data era is to implement the deep fusion of ideological and political teaching and information technology\textsuperscript{[5-6]}. What is the deep fusion of ideological and political teaching with information technology? What is the status quo of fusion? How to achieve fusion? Given the above problems, some new perspectives and viewpoints in combination with the characteristics of primary education, to make the education in the big data era more clear and prominent.

2. Status Quo: Combination, Instead of Integration

The relationship between information technology and ideological and political teaching is not a simple “1 + 1” type combination, the relationship is no longer a simple means and content for each other, information technology is not a bright tool or presentation of ideological and political teaching content, and the ideological and political teaching content is not an old content that needs to be wrapped in a new form. Secondly, they are an inseparable whole. The fusion of information technology and ideological and political course teaching has changed the ideological and political course teaching, and education has become a new “education”. This type of “education” and information technology are deeply integrated, and both coexist as a whole. The integrated ideological and political course teaching not only highlights the new technology in form, but also changes the nature, value, and function of Ideological and political course teaching correspondingly.

The Chinese teaching in primary school is taken as an example. There are massive popular auxiliary teaching software in primary school Chinese teaching, such as auxiliary Pinyin teaching (pinyin Beibei, Pinyin Master), auxiliary writing teaching (children learn to write, Chinese characters follow the spirit), auxiliary idioms teaching (Chinese idioms dictionary, idioms Encyclopedia), auxiliary ancient poetry teaching (Tang poetry 300) Kwai Yu's Poetry Library, auxiliary reading teaching (fairy tales, fables, story collections, children's reading treasure house), auxiliary composition teaching (composition fast, writing star), etc. Software to assist other disciplines such as mathematical paradise, small translators are everywhere. Hence, the software assisting the ideological and political teaching is changing with each passing day, and the updating speed of the software is dozens of times faster than that of the teaching materials. Using software to assist teaching materials can help students get more new and advanced learning content that is not in the teaching materials. In the auxiliary software, a variety of animation clips, games and fairy tales pictures are preset to attract primary school students, which can help stimulate students’ interest in learning, improve the enthusiasm and initiative of students in learning, and help teachers create a happy and upward learning atmosphere for students.

From the perspective of resource selection process, if a task \( r \) is contained by the object of a credit rationing model of small and medium-sized enterprises, then the task can no longer be mapped to the resource at this time.

The calculation formula is shown below:

\[
AT(i,j) = \sum W_{i,j}(i,j) \cdot \frac{TD}{UD} \tag{1}
\]

\[
W_{i,j}(i,j) = \frac{TP}{RBW} + RTT + FS \tag{2}
\]
Where it represents the transmission parameter, which corresponds to the transmission broadband between resources, represents the network delay, and represents the time required for format conversion, and corresponds to the data size, medium resources, and communication time corresponding to the data block.

To analyze the application and practice of information technology as a whole, the author investigated and observed many primary schools in a city, analyzed the application of multimedia equipment and software, and the data showed that 80% of subject teaching would use multimedia equipment. The utilization rate of some subjects is more than 80%, which shows that this subject is very dependent on multimedia equipment and regarded as a part of subject teaching. However, the utilization rate of some topics is less than 20%, which suggests that modern information technology is still not fully utilized.

3. New Education and Approach of Ideological and Political Teaching Based on Information Technology

The deep fusion of information technology and ideological and political teaching will inevitably bring about new changes in ideological and political teaching. Education will take on a new look and a new way. The innovation of Ideological and political courses under the background of information technology lies not only in the teaching means but also in the teaching concept. Information technology brings mobile learning tools and learning resources to education and new teaching methods to the curriculum. If teachers use the original teaching theory to carry out ideological and political theory teaching activities, there will be a phenomenon of using the old “theory” to guide the new “practice”, which obviously cannot adapt to the situation of learning and general application in the new era. For example, many students show a strong desire to learn by using mobile terminals to assist ideological and political classroom learning. However, due to the lack of correct guidance and reasonable norms of teachers, there is no systematic learning methods and skills, which leads to low learning efficiency.

![Pie sales data](image)

**Figure 1.** Knowledge points pushed in spare time and attitude of discussion in class

Figure 1 shows that for self-study in spare time of some knowledge points pushed by information technology, teachers organize discussion in the teaching, and 28.38% of the students interviewed are very interested in this teaching method; and 38.12% of the students hope to try new teaching methods
in this way; then 26.24% of the students are neutral, and from the perspective of education and culture, the continuous application of mobile learning promotes the birth of new teaching methods It has made profound educational changes.

![Graph](image)

Figure 2. Focus points of college students on mobile learning

For mobile learning, a new way of learning, the concerns of college students are shown in Figure 2. For mobile learning, 34.1% of college students pay more attention to the learning effect, 30.5% of college students pay attention to learning resources. If they think that the learning effect is excellent and mobile resources are abundant, they will choose mobile learning.

4. Ideological and Political Teaching and Improvement Measures Based on Information Technology

From the practical needs of Ideological and political teaching. Every lesson and every method that teachers teach should be based on the needs of the practice, not on theoretical logic, not on subjective wishes. The principle of teaching arrangement should be problem-based. The content and method of video classroom teaching should be pointed out. It is necessary to reverse the arrangement of information-based teaching based on effectiveness. From the needs of students to carry out ideological and political teaching. As a teacher, we should go deep into the real situation, every family, and every student. To know what each student needs and whether each family has the conditions for information-based teaching is an essential prerequisite for individualized instruction and arranging students for video teaching in and after class. Teachers should arrange information-based education according to the characteristics of students, student-centered, age characteristics and development needs of students. Both MOOC and flipped classrooms are a form of personalized learning for students.

The application ability of subject teachers’ information technology expand training channels should be improved to lay a solid foundation for professional development. To help teachers to adapt to the modern education environment and improve the use of information technology, it is necessary for schools to make overall arrangements and carry out centralized and unified training according to local conditions. The main training forms are as follows: on-site demonstration and explanation, hands-on operation of teachers; on-line training of various multimedia materials collection and processing techniques, courseware production methods, and hiring experts to do special lectures on the fusion of
information technology and multiple disciplines. Teachers are encouraged to participate in information technology training. Leaders of colleges and universities should give high support to it training, help in-service teachers learn modern teaching technology, participate in the implementation of the in-service teacher training program, provide enough time and necessary funds for training and learning, arrange teachers to go out for education and training, and carry out inter-school communication activities. Meanwhile, it is required to formulate corresponding incentive mechanisms and safeguard measures, commend and reward excellent teachers, and improve teachers' enthusiasm in using new technology in teaching.

Free resource bases are established to explore excellent teaching resources with quality assurance. We will strengthen the research on the development strategy and sharing mechanism of national infrastructure resources and establish a free excellent resource base for primary and secondary schools with sustainable development capacity. To explore how to deliver outstanding teaching resources to all kinds of areas in a faster way. Strengthen the development and utilization of excellent curriculum resources, as well as the teaching research on the fusion of subject curriculum and information technology, and explore how to develop exceptional results with high-quality assurance and effective promotion of efficient learning in students, and strengthen R&D of professional software. To improve the quality of educational software is to leverage the characteristics of computers, endow educational software with the characteristics of personalized and intelligent learning, get rid of the image of “educational software is e-book” for a long time, improve the effectiveness of learning, strengthen the discipline characteristics of educational software, develop and improve the fundamental quality of educational software, and expand the application of software. Strengthen the research and development and promotion of discipline education software, change the status quo that teachers rely too much on general software, and deepen the reform and innovation of the application mode of discipline information technology.

5. Conclusions
Attention should be paid to the stage of infrastructure construction investment to drive the reform of educational informatization in the whole society more effectively. The construction of information resources should follow the standardized technical route strictly and integrate the resources. The application development should comply with the international standards and consider the development of characteristic projects applicable to the national conditions. Semi-official authority should be established for the leadership of educational informatization, and a competition system should be built to study the educational informatization. The humanistic spirit should be valued in the personnel training process, and the Internet should be used to provide diversified course services. Only when the state develops the specific laws and policies and offers financial support as required to the educational information industry can its development be promoted. In the aspect of teaching resource construction, it is necessary to prepare more targeted and practical learning resources guided by the design concept of “Extensive sharing, effective consolidation, and full utilization”, focusing on serving for the teaching under the guidance of front-line teachers. The proportion of multimedia dynamic resources should be expanded, and the application effect of the resource base should be focused to accomplish the overall education system reform.
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