Value Orientation and Development of Ideological and Political Education Based on Artificial Intelligence

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Abstract. Artificial intelligence (AI) technology has brought a brand-new technological revolution. Under the background of vigorously promoting educational modernization in our country, it is a trend in the future to introduce AI technology into ideological and political education (IAPE). At the same time, it strengthens the effect of IAPE and promotes the reform of IAPE. However, due to the fact that the research in this field is still in the trial stage, there are still many problems. Therefore, this paper puts forward the research on the value orientation and development of IAPE based on AI. In this paper, the IAPE methods of colleges and universities towards the era of AI in the future are deeply studied. According to the actual needs of IAPE, combined with the characteristics of AI technology, this paper divides the future development of IAPE mode into seven categories, and analyzes the main characteristics. For the value of AI in IAPE, this paper believes that AI technology can better promote the reform of IAPE mode, especially in the teaching method, which has obvious intelligent improvement. In order to strengthen the effect of AI technology on IAPE in practical application, this paper thinks that we should strengthen the research of AI technology, especially the research of algorithm, which needs to be more intelligent and humanized. For the reform of IAPE, we should take students as the main body, enrich teaching methods, customize personalized teaching content, and cultivate students' autonomous learning ability.

Keywords: Artificial Intelligence Technology, IAPE, Reform in Education, Teaching Method

1. Introduction
Marx once made a relevant exposition that the transformation of science and technology into the world is thorough, and the changes it brings not only affect people's life style, but also their thinking mode. Changes over the centuries have proved that Marx is right, and his prediction of the future development of the world has been partially realized [1-3]. The change of science and technology has
brought about new social changes. Today, network technology has swept every corner of the world, every industry and every person's survival process. At the same time, another science and technology, AI, is also entering the process of social development with a rapid trend [4-6].

AI technology revolution will bring a new "AI era". We will enter the "AI era" from the "Internet Era". Looking back on the course of scientific and technological revolution, the first is the steam age, the second is the electrical age, and the third is the information age. The fourth revolution will be the development of AI [7-8]. From the global point of view, AI technology has become a technology field of fierce competition among countries. China must firmly grasp the opportunity of the development of AI. Similarly, AI is also a ladder and leap forward development opportunity of China's IAPE [9-10].

This paper deeply studies the current teaching mode of IAPE in China, and understands that there are still many deficiencies in the current IAPE mode in China's colleges and universities. Especially in the era of intelligence, the traditional IAPE is too theoretical and lack of practice, which makes students feel boring in learning and seriously affects the teaching effect. Therefore, this paper puts forward the research on the value orientation and development of IAPE based on AI, hoping that through this analysis, AI technology can be better applied in the existing IAPE in Colleges and universities. According to the future development direction of IAPE, combined with AI technology, this paper analyzes the mode of IAPE in the future. According to the shortcomings of the existing AI technology in the IAPE application, this paper puts forward the optimization and improvement measures. In this paper, the traditional AI decision tree algorithm is structurally optimized, which not only simplifies the calculation steps, but also improves the calculation accuracy. In the future intelligent IAPE, we should pay more attention to the "intelligence" of algorithm recommendation and the "autonomy" of individual learning. In view of this, this paper discusses in detail, and gives the specific implementation steps. This paper believes that the reform of the existing IAPE mode through AI technology not only realizes the value of AI technology, but also further improves the ability of IAPE in Colleges and universities in China.

2. AI Technology and Ideological and Political Education

2.1. Technical Characteristics of AI

Human like thinking: let the machine simulate a part of human thinking, rely on deep learning and big data technology, simulate the advanced cognitive structure of human brain, find out the patterns and laws behind the data, so as to help people do something within their ability.

Accurate calculation: understand and calculate a large amount of collected data according to a certain program, and have the ability to understand and calculate. In the field of education, it mainly collects students' basic information, learning materials and living materials, and calculates them accurately.

Standard execution: it is the result of calculation and performs intelligent tasks according to the intelligent program. On the basis of accurate calculation, the task is completed intelligently according to the calculation results.

2.2. Influence of AI on IAPE

As a technology applied in education, AI has something in common with education. IAPE is a special subject of education. When teachers complete the task of IAPE and impart educational contents, they only use teaching methods, so students' enthusiasm is not high. Therefore, it is necessary for IAPE workers to break the traditional teaching methods, with the help of some new educational means, so that IAPE can be innovative development. AI technology into education has become the latest means of education, and its intelligent learning environment and other technical platforms expand the space of IAPE. The use of AI technology not only brings opportunities to education, but also leads to the leakage of various information data and the spread of bad information. It is easy to bring some negative effects to young students, increase the difficulty of IAPE, and bring certain challenges to
IAPE.

3. Ideological and Political Education Methods in Colleges and Universities Towards the Era of AI

Any educational thought and idea must be put into practice in the educational method, otherwise it can only be a flower in the fog. The educational method is based on the reasonable educational idea and serves the educational purpose according to the educational idea.

It is impossible for people to produce products like machines and mass production. The differences between people are mainly reflected in personality, thinking and so on. The growth of human beings changes with the changes of times, environment and knowledge, and the process of growth is the gradual formation of values. The contemporary youth grow up in an era of knowledge explosion, AI and universal competition. Compared with their predecessors, they are facing more choices in the future. The dilemma of choice is mostly due to personal uncertainty and lack of understanding, as well as interference from the outside world. The more external information we receive, the more difficult it is to digest, because we cannot grow fast. Therefore, the cultivation of values is the direction of life, and the world of thought is the world of action. Under the power of AI and network, IAPE should explore effective education methods, broaden vision and understand life. Through the research of this paper, the future development methods of IAPE under AI are statistically analyzed, as shown in Table 1.

| Serial number | Name                          | Main features                                                                 |
|---------------|-------------------------------|-------------------------------------------------------------------------------|
| 1             | Docking Education             | Accuracy, fit, non-overlapping, knowledge width improvement                    |
| 2             | Puzzle solving education      | Problem based targeted education                                              |
| 3             | Truth seeking education       | Systematization, paying attention to the knowledge education of logical thinking |
| 4             | Promoting good education      | Case teaching to form a positive and good world outlook                        |
| 5             | Aesthetic education           | Give full play to the advantages of humanism and carry out teaching by means of artistic aesthetics |
| 6             | Perception Education          | Special topic summary, comprehensive connection, feeling in the heart          |
| 7             | Extended education            | Extracurricular reading, self-study and field visit                           |

4. Discussion

4.1. A Comparative Analysis of AI IAPE Mode and Traditional IAPE Mode

At present, the development of IAPE is in a new historical period. This change comes from the change of educational subject, the development of educational environment and the development of educational technology. Therefore, IAPE should keep pace with the development of science and technology and the pace of environmental change, and closely combine the IAPE with the application of AI. In order to further verify the actual effect of the IAPE mode using AI technology, this paper takes a university as an example, and carries out the AI IAPE method and the traditional IAPE method, in the level of human-computer interaction (b), the richness of teaching content (c), personalized teaching (d), student's dominant position (E), Curriculum Optimization (f), teaching cost (g), teaching
effectiveness Results (k), and student satisfaction (L) eight aspects of the evaluation, using the 100 point system for comparative analysis.

According to the comparison results of Figure 1 and Figure 2, compared with the traditional teaching method, AI has obvious advantages in IAPE. All the scores are significantly higher than the traditional teaching methods, and are higher than 15% of the scores. This paper analyzes that AI is the general direction of the development of modern education in the future, and AI technology plays an indispensable role in modern education. Ideological and political teaching should keep up with the development of the times and make changes in teaching mode.

**Figure 1:** Comparative analysis of main indicators between AI IAPE mode and traditional IAPE mode

**Figure 2:** Comparative analysis of the main indicators between the AI IAPE mode and the traditional IAPE mode
4.2. Decision Tree Algorithm
Classification decision tree model is a kind of tree structure which classifies instances. It is composed of nodes and directed edges. Nodes can be divided into two types: the internal node represents an attribute attribute, and the leaf node represents a class. Decision tree classifier is an inductive learning algorithm based on instance data.

Let \( p \) be a random variable with a finite number of values:
\[
p(x_i) = p_i, i = 1, 2, \ldots, n
\]
Then the entropy of variable \( H(p) \) is defined as:
\[
H(p) = -\sum_{i=1}^{N} p_i \log p_i
\]
(2)

The greater the entropy, the greater the uncertainty of the variable. The conditional entropy \( p \) represents the uncertainty of the variable under the condition of the variable \( x \). the conditional entropy of the variable under the given condition of the random variable is:
\[
H(y|x) = \sum_{i=1}^{N} p_i H(y|x_i)
\]
(3)

4.3. Value Analysis of AI Applied to IAPE
AI greatly reduces repetitive labor and promotes people's thinking innovation and social progress. AI is essentially a comprehensive innovation of technology, which is the simulation and simulation of human thinking and consciousness. From the perspective of deep data and AI, it is based on AI. Among them, big data obtains value through the analysis of massive data, which makes people's thinking mode change from small data to big data, from cause and effect to big data. Deep learning is a process of analyzing the development characteristics and operation rules of things by mastering the massive big data, and then predicting the future development trend. The algorithm is an intermediary application to realize deep learning of big data, and it is the logical structure of AI decision-making. Only through the powerful algorithm, can we accurately predict the big data collection, so as to find the law.

4.4. Pay Attention to the "Intelligence" of Algorithm Recommendation, and Pay More Attention to the "Autonomy" of Individual Learning
AI makes the algorithm more intelligent, and intelligent recommendation greatly facilitates the accurate acquisition of information. But the algorithm recommendation without intervention is easy to lead to fixed information and value imbalance, which is not conducive to learners' autonomous learning and independent thinking ability. The reason why AI cannot replace human beings is that human beings have the ability of autonomous learning and innovation. Therefore, we should strengthen the cultivation of individual self-learning and information recognition ability; strengthen the guidance of individual self-efficacy and the goal of obtaining information value. If individuals have high self-learning ability and media literacy, they can consciously avoid excessive recommendation caused by users' preference for the algorithm.

5. Conclusions
In the research on the value orientation and development of IAPE based on AI, this paper deeply studies the mode of IAPE in Colleges and universities in China, and makes a detailed analysis of it. According to the characteristics of AI technology and the possibility of its application in IAPE, this paper studies the future development of intelligent IAPE. The analysis shows that AI technology has a broad application prospect in the field of IAPE, and AI technology has brought a variety of practical and different teaching modes to the traditional IAPE. Greatly optimize the traditional IAPE teaching mode, promote the modernization of IAPE, intelligent construction. In this paper, the specific value of
AI technology in IAPE is analyzed in detail, and the existing AI technology should strengthen the research of algorithm, make the algorithm more intelligent, and targeted optimization and improvement of the algorithm of IAPE. The value premise of AI is accurate algorithm and strong practicability, which is the premise of better application of AI technology in IAPE in the future. The analysis shows that the research in this paper has achieved ideal results and made a contribution to the application of AI technology in IAPE in China.

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