

# The Opportunities and Challenges of ChatGPT for Ideological and Political Education of College Students

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**Abstract.** In the 21st century, humanity ushered in a wave of artificial intelligence. In the context of big data, generative artificial intelligence has become an important auxiliary tool in the field of education. ChatGPT has gradually entered the learning life of students and reflected its value in ideological and political education in particular. Through a questionnaire survey, this article takes college students as the research object and aims to grasp their evaluations of using ChatGPT and their views on its application in the field of ideological and political education. Research has found that ChatGPT has advantages in optimizing ideological and political evaluation and management systems, helping students understand political theories, enriching teaching models, and meeting the personalized needs of students. The integration of ChatGPT into the class can not only improve teaching quality but also enhance student's learning efficiency and interest. However, the arrival of ChatGPT has also raised a series of ethical risks, such as spreading incorrect information, personal information leakage, academic misconduct, shallow thinking among students, and alienation of teacher-student relationships. In response to these problems brought about by ChatGPT, this article also proposes corresponding risk governance policies. It is necessary to establish a legal supervision mechanism, improve the level of software research and development, enhance the information literacy of teachers and students, and strengthen academic standardization awareness.

**Keywords:** ChatGPT, Artificial Intelligence, ideological and political education, opportunities and challenges.

## 1. Introduction

In recent years, with the rapid development of science and technology, artificial intelligence has continuously iterated. The improvement of large-scale pre-trained language models has led theoretical algorithms from theory to practical applications. Based on this, on November 30, 2022, the American artificial intelligence research company OpenAI launched a generative artificial intelligence called ChatGPT. Since its release, this technology has quickly become popular worldwide, attracting over 100 million users in just two months and then triggering a global wave of artificial intelligence. As an advanced language model, ChatGPT completely changes the traditional processing of natural language by generating human-like texts with context and coherence, providing new possibilities for human and artificial intelligence interaction [1]. In recent years, artificial intelligence has added new vitality and injected new momentum into the development of different industries, especially in the field of education, which has been widely applied. ChatGPT's massive data processing library and intelligent human-machine dialogue mechanism can empower the education industry, but it also brings new challenges. With the increasing popularity of ChatGPT, students are gradually developing a dependency mentality towards it. According to a survey conducted by the United States, 89% of American college students admit to using ChatGPT to complete homework, and over 50% of students use ChatGPT to write papers [2]. In addition, under the background of digital education, many ethical issues have emerged, such as academic misconduct, alienation of teacher-student relationships, and ideological threats. In the era of global risks, the ethical risks caused by ChatGPT technology may trigger a chain reaction, causing unforeseeable consequences to human society [3]. The college period is an important stage for cultivating and developing ideological concepts. Meantime, college students are more willing to accept new things than other groups, and they are more frequently exposed to ChatGPT in their daily lives. However, by organizing existing literature, this study found that there is still a lack of survey and analysis on

the use of ChatGPT by university students. Therefore, based on Dewey's theory of moral education, this article focuses on the university group and analyzes the opportunities and challenges brought together by ChatGPT at the ethical level according to collecting real data and then provides corresponding governance methods, to help the healthy development of ideological and political work in universities in the new era.

## **2. Method**

### **2.1. Research Design**

This article adopts the method of questionnaire survey, and through quantitative analysis, aims to grasp the cognition of college students towards using ChatGPT and their views on the impact of ChatGPT on ideological and political education. The survey questionnaire consists of 15 questions and three parts: The first part is the basic information of the survey subjects, including their gender, grade, and major. The second part involves evaluating the effectiveness of ChatGPT used by the survey subjects, including frequency of use, reasons for use, and user experience. The third part is about the basic views of the survey subjects on ChatGPT empowering ideological and political education, including risk awareness, value grasp, and trade-offs.

### **2.2. Results**

This survey selected undergraduate students from Heilongjiang University as the survey subjects, and randomly distributed and collected questionnaires to 60 college students through Questionnaire Star. In the end, 60 questionnaires were effectively collected, with a 100% validity rate. Among them, there are 12 male students and 48 females, all aged between 18 and 22 years old and covering majors in literature, history, science, and engineering.

According to the survey results, 33.3% of college students frequently use ChatGPT and only 8.2% of college students have never used ChatGPT. It can be seen that over half of college students will use ChatGPT in their daily lives. For college students, the main purpose of ChatGPT is to assist their studies rather than accompany chatting. The survey results also show that 81.67% of university students use ChatGPT to complete homework, and those who use ChatGPT to search for information and write papers account for 65% and 46.67% respectively, and only 23.33% engage in chatting. In the question "Why do you use ChatGPT", the vast majority of college students agree that ChatGPT can quickly process a large amount of information, and is both convenient and fast to use, which accounts for 86.67% and 85% respectively.

In terms of evaluating the effectiveness of using ChatGPT, 90% of students believe that the answers provided by ChatGPT are only partially credible, and 70% of students believe that their answers are only partially understandable, indicating that college students generally have doubts about the authenticity and reliability of ChatGPT's answers. Meanwhile, the survey results show that the arrival of artificial intelligence technology is gradually weakening the dominant position of traditional teachers. During the process of completing homework, compared to 38.33% of college students choosing to consult with teachers, 45% of students are more inclined to directly ask ChatGPT for answers.

## **3. Discussion**

### **3.1. Application Values**

In the context of artificial intelligence, ChatGPT has become an important auxiliary tool in modern teaching classrooms. Based on the opportunities brought by ChatGPT in empowering ideological and political education, college students generally believe that ChatGPT has played a significant collaborative role in optimizing ideological and political evaluation and management systems, enriching teaching models, helping students better understand political theories and personalized

customization of educational content. Firstly, ChatGPT has an intelligent algorithm matching mechanism, which combines artificial intelligence with the ideological and political class evaluation system to more accurately balance and evaluate the learning levels and learning process of different college students, thereby more efficiently formulating teaching schemes and objectives for students. Secondly, with the foundation of flexible algorithmic mechanisms, ChatGPT can provide teachers with new ideas for teaching design. From a single theoretical knowledge lecture to a new teaching model that integrates artificial intelligence, ChatGPT's intervention in ideological and political classes will inject new ideas into traditional teaching models, which can greatly strengthen interest in the classes and make them more conducive to students accepting knowledge. In addition, for students, ChatGPT's cross-modal learning forms a data system of interrelated ideas, political concepts, values, and moral educational knowledge within the internal elements of data [4]. By driving associated personality elements, students can be placed in a flexible and comfortable learning space, free from dull and boring learning forms, and thus gain a deeper understanding of theoretical knowledge [4]. ChatGPT can also customize corresponding learning plans and contents for students according to their needs, providing tailored assistance to students [3]. For educators, by combining natural language processing models with ideological and political education, students will be provided personalized and highly matched courses and learning contents, which not only meet the individual needs of different students but also improve their learning efficiencies [5].

### 3.2. Challenges and Difficulties

However, combined with other statistical data, this study found that ChatGPT also brings a series of challenges. This survey mainly focuses on five aspects regarding the risks associated with ChatGPT empowering ideological and political education. Among them, the ones with higher proportions are the loss of independent thinking ability caused by excessive reliance on ChatGPT and the impact on traditional teaching methods (the alienation of the teacher-student relationship), followed by the belief that ChatGPT carries the risk of spreading erroneous information.

ChatGPT technology has excellent content-generating capabilities. By setting and adjusting different parameters, ChatGPT can automatically generate high-quality, coherent, and consistent text that meets personalized needs [6]. The intervention of artificial intelligence in ideological and political education provides great convenience for college students, but the focus of education should not only be related to the study of its knowledge but also pay attention to the cultivation of students' abilities. Excessive use of ChatGPT can lead to students becoming dependent on ChatGPT and reducing their sense of learning engagement. For a long time, it will weaken students' independent thinking abilities which is not conducive to cultivating their critical thinking and independent innovation consciousness, thus violating the original intention of combining artificial intelligence with ideological and political education.

The intervention of ChatGPT in ideological and political education will cause the alienation of teacher-student relationships, which can easily reduce the level of emphasis students place on the ideological and political classroom. In traditional teaching, teachers play the role of knowledge transmitters. However, the emergence of artificial intelligence has shaken this position of teachers, reduced the humanistic interaction between teachers and students, and gradually revealed a one-way trend in knowledge transmission from a two-way perspective. In the relaxing and equal dialogue environment created by artificial intelligence, once students form excessive trust in technological logic and form a "dialogue gap" with teachers in real life, it will continuously challenge the authority of teachers in knowledge [4]. In this case, the value-leading function of ideological and political education is gradually being weakened, which will ultimately create chaos in the order and main roles of ideological and political classrooms [4].

Big data, as a new technology, is integrating into ideological and political education, which has become a hot topic of social concern. However, the loopholes in its inherent algorithmic mechanisms may lead to "information cocoons" and "knowledge blind spots", thereby posing a threat to students' ideologies [4]. In the process of ChatGPT's intervention in ideological and political classrooms, its

rich data reserves can help students search for a large amount of ideological and political theories in a short period, but the source of information is not publicly available, so students cannot guarantee the accuracy and reliability of answers. What's more, this non-public technical limitation can also lead to algorithmic black boxes. For untrained ideological and political theories, ChatGPT has the potential to mislead and even spread ideas that contradict mainstream social values [4]. In this case, users need to perform a secondary screening of the information they receive. However, the cognitive level and judgment ability of college students are limited, and their values are still in an immature period. Therefore, they are easily misled by incorrect information, which in turn tends to affect the healthy development of their ideological concepts.

In addition, students who use ChatGPT improperly may be involved in academic disputes, which weaken and challenge the fairness of ideological and political education [7]. In January 2023, to prevent academic fraud, the Paris Institute of Political Studies banned all faculty and students from using artificial intelligence software represented by ChatGPT [8]. For the vast majority of university students, the definition of academic norms is relatively vague. At the same time, due to the opaque information source of ChatGPT, it is difficult to determine its ownership and origin. Therefore, students may unintentionally engage in academic misconduct such as plagiarism and plagiarism, and in serious cases, it may even lead to intellectual property disputes [3].

ChatGPT also poses technical and ethical risks of data leakage. Since its launch in 2022, there have been multiple cases of privacy breaches caused by the use of ChatGPT worldwide. Although the application of artificial intelligence technology brings convenience to students, it will blur the boundaries of personal privacy [9]. What's worse, there is currently no regulatory mechanism to make strict control on ChatGPT, and for college students, judgment abilities, and practical experience are limited as well. If they only focus on the effectiveness of using ChatGPT and ignore the risk of personal information input in the process of seeking answers, it may lead to data privacy leakage, thus breeding new social and ethical issues [10].

### 3.3. Risk Governance Policies

Based on survey data, the risk governance measures of ChatGPT empowering ideological and political education can be mainly carried out from four aspects: improving the design of relevant laws, developing technical level, enhancing information literacy of teachers and students, and strengthening academic integrity education.

In the face of moral and ethical risks such as privacy breaches, data abuse, and intentional dissemination of erroneous information caused by ChatGPT, the government must take a leading role. In the process of ChatGPT's involvement in ideological and political education, the government should be cautious and closely monitor the dynamics of relevant platforms, ensure that their ideas conform to mainstream social ideologies, and abide by ethical norms of ideological and political education [6]. In response to the opacity and closure of its algorithm programs, relevant governments and institutions can establish a strict legal regulatory system, increase supervision and management of the platform, and allow the power of the law to penetrate the entire process of empowering ideological and political education through artificial intelligence [4].

Faced with the intervention of ChatGPT in ideological and political education, it is necessary to construct an algorithmic framework with correct thinking, and use mainstream social ideology as the foundation for its development and usage [6]. At present, China has developed generative artificial intelligence similar to ChatGPT. Based on this, domestic enterprises should continue to improve their independent research and development level and accelerate the localization process of ChatGPT. By integrating mainstream social thinking into artificial intelligence products, relevant enterprises are responsible for shouldering the mission of ideological governance, concentrating their advantages on safer application products, and creating a technological environment conducive to cultivating students' moralities, values, worldviews, and outlooks on life [11].

In the late 19th and early 20th centuries, based on Charles Pierce's pragmatic philosophy, the famous American philosopher, educator, and psychologist John Dewey proposed the famous Dewey's

theory of moral education. He emphasized the important role that schools play in carrying out moral education and advocated the formation of a "trinity" of indirect moral education through school life, teaching methods, and textbooks. In the context of the new era, students have more diverse ways to obtain information and knowledge, no longer limited to traditional classroom content [9]. Therefore, universities should vigorously carry out digital education to enhance the information literacy of teachers and students and assist teachers in creating a digital ideological and political classroom that keeps pace with the times. Meantime, combining ideological and political knowledge with social life can stimulate students' learning interests, thereby effectively promoting the high-quality development of ideological and political education in universities in the new era [12].

Furthermore, Dewey believed that in the process of conducting moral education, educators should adhere to the concept of people-oriented, improve the moral judgment ability of the subject, and vigorously exert human subjective initiative and independent creativity. The focus of ideological and political education is not only on the knowledge level but also on the cultivation of students' abilities [9]. When reducing the learning burden of college students and improving their efficiencies, ChatGPT also weakens students' dependence on teachers. However, this does not mean that the role of teachers will be replaced. The arrival of the information age promotes the transformation and upgrading of traditional teacher roles and teachers should actively adapt to the new position in the artificial intelligence environment, assume the role of supervisors in the process of students applying artificial intelligence resources, and guide students to reasonably integrate artificial intelligence such as ChatGPT into the study of ideological and political education [11]. For a long time, the comprehensive qualities of innovation awareness and ability of college students will also be improved, thereby cultivating more high-quality young talents for society and the country [13].

#### 4. Conclusion

Through a questionnaire survey, this article focuses on exploring the impact of ChatGPT on ideological and political education from an ethical perspective and then proposes targeted governance suggestions. Research has found that ChatGPT plays a significant role in promoting the development of ideological and political education for college students. In daily use, ChatGPT can meet the personalized needs of students, and the integration of this technology with teaching can promote diversified development of the modern classroom, stimulate students' interests in learning, and greatly improve the quality of teaching. However, ChatGPT will also lead to shallow thinking among students, alienation of teacher-student relationships, academic misconduct, and ideological risks. In response to the various ethical risks brought about by ChatGPT, efforts should be made from four aspects: government, enterprises, universities, and educators. It is essential to leverage the regulatory role of the government to improve the hardware level of domestic generative artificial intelligence and guide college students to use ChatGPT correctly and efficiently. By integrating information technology in the new era into ideological and political education, educators can accelerate the construction of modern classrooms and promote the transformation and upgrading of ideological and political education in universities. This article collects real data to understand the real feelings of college students towards using ChatGPT, which has reference significance for clarifying the dual impact of ChatGPT on ethics. However, the questionnaire survey in this article mainly focuses on Chinese university students, and the sample size is limited, which cannot represent the situation of other countries and cultures. Therefore, in future research, the scope of the survey subjects should be expanded, while also taking the real thoughts of university teachers on ChatGPT into account, which is more conducive to the in-depth and comprehensive exploration of this topic.

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