

Study of the Direction of Schooling under the Influence of ChatGPT

Huishuang Yao

College of Education and Sports Sciences, Yangtze University, Jingzhou, Hubei, 434020, China

Abstract: As the most widely used chatting tool, ChatGPT has attracted much attention in all walks of life, and its impact on education cannot be ignored. The article describes the basic meaning and positioning of ChatGPT, and argues that although ChatGPT promotes the emergence of a new ecosystem of school education, changes in the way of school education and teaching, and the development of teacher-student relationships in schools, it also brings challenges to the teaching morality and ethics, the realization of students' individual values, and changes in the evaluation system of teachers. In the future, it is necessary to establish a school education system that is compatible with the new AI, cultivate teachers with "unique values", and set educational goals focusing on students' comprehensive literacy, in order to promote the in-depth integration and common development of school education and AI.

Keywords: ChatGPT; Artificial Intelligence; School Education.

1. Introduction

ChatGPT (Chat Generative Pre-trained Transformer), released on November 30, 2022, is a chatbot program developed by OpenAI, which has sparked widespread attention from all sectors of the community with its powerful language comprehension and text generation capabilities upon its release. It is able to understand and imitate human language, interact according to the context of the chat, and even replace human beings in writing emails, essays, copywriting and other contents. With the trend of digitalization and informatization of education, what kind of impact will such a powerful AI program have on school education? Will schools change in content or form as a result? How can ChatGPT be fully utilized to modernize, reform and develop school education? These questions are worth exploring both theoretically and practically.

2. Basic Meaning: "Analyzer" and "Creator"

ChatGPT is a new AI technology-driven natural language processing tool from OpenAI, an AI research lab in the U.S. ChatGPT uses the Transformer neural network architecture, also known as the GPT-3.5 architecture, which is a model used to process sequential data, with language comprehension and text generation capabilities, in particular, it connects to a large number of corpora to train the model, which contain real-world conversations. These corpora contain real-world conversations, which gives ChatGPT the ability to know astronomy and geography, as well as the ability to interact according to the context of the chat, making it possible to communicate in chat scenarios that are almost indistinguishable from those of real human beings.

Regarding how to position the nature of ChatGPT, Prof. Li Zhengtao, director of the Institute for Basic Education Reform and Development at East China Normal University, pointed out that "before ChatGPT appeared, there were other 'chatbots', but the role played by the 'chatbots' in the past was not the same as the role played by the 'chatbots' in the past. bots' took on the role of more of a sifter and mover of

information, while the emergence of ChatGPT means that the role of AI has changed." [1]

First, it is an "analyzer" with strong text analysis and language analysis capabilities. Secondly, it is a "generator", with powerful text generation ability, ChatGPT can not only generate summaries, fairy tales, teaching programs, scientific research papers and other textual information, but also generate the corresponding scenes, which is very powerful. Because it is a "generator", it also has the role of a "creator". In addition to the simple transportation and copying of human language, ChatGPT can also create smooth and logical statements based on context and background, which is more powerful than other forms of "chatbots" in the past. ChatGPT is more advanced and intelligent than any other form of "chatbot" in the past. It can be said that ChatGPT has upgraded artificial intelligence from an analytical traditional robot to a new type of generative and creative robot.

The confirmation of ChatGPT's "creator" nature also means that we can no longer look at artificial intelligence from the previous perspective. Although AI cannot completely replace human intelligence, the emergence of ChatGPT indicates that AI is challenging human intelligence at a new level. School administrators must think about how to use artificial intelligence represented by ChatGPT to promote the change of school education management mechanism and the reconstruction of talent cultivation mode, and respond to the fundamental question of "what kind of people to cultivate" and "how to cultivate people" in the new context.

3. Educational Impact: Both Challenges and Opportunities

Although ChatGPT is not an intelligent software developed specifically for education, its functions have an important impact on education. In the opinion of many people, ChatGPT has become an intelligent arena and intellectual wrestling ring for human intelligence and artificial intelligence. We do not deny that the development of artificial intelligence has brought many challenges to school education, but there are certain opportunities beyond the challenges.

3.1. ChatGPT Creates Opportunities for the Development of School Education

3.1.1. ChatGPT Promotes the Emergence of a New Ecology of School Education

ChatGPT is a technology about the processing, storage, dissemination, presentation and use of big data. As a new generation of artificial intelligence technology, it helps schools to rapidly and deeply promote the digital transformation of education, and provides a good opportunity for schools to rebuild the education ecosystem and create a new education picture.

In school education, ChatGPT can expand teacher-student interaction and enrich the form of information acquisition, change the traditional teaching and learning scenarios, and realize the in-depth change of the teaching method; it can promote open learning and knowledge technology integration through AI generation technology, and carry out personalized learning based on in-depth learning and automated learning; it can carry out a more dynamic and accurate evaluation and diagnosis of education and teaching with the help of machine learning technology, and improve school education. Evaluation and diagnosis of education and teaching can be carried out with the help of machine learning technology to enhance the precision and effectiveness of school education; the interaction between AI technology and various types of learning behaviors can be synthesized to promote the interactivity of education, improve the management style and enhance the efficiency of school management.

3.1.2. ChatGPT Promotes the Change of School Education and Teaching Methods

Skrabut (2023) proposes 80 methods for its classroom applications, which are divided into categories such as assisting in lesson preparation, providing teaching aids, creating evaluation materials, conducting classroom activities, and assisting students in independent learning. [2] Overall, the current proposals focus on the framework of teacher-led, classroom instruction, i.e., ChatGPT aids teacher teaching and student learning in group instruction. [But in fact, ChatGPT has more potential to be explored, especially at the level of directly "teaching" students. The software replaces teachers to teach students, and the algorithms control students' learning content and progress, i.e., the automation of "teaching", and its large-scale normalized application is very likely to bring about a change in the way of teaching and learning in schools.

Under the influence of artificial intelligence, what kind of teaching methods and teaching organization should be adopted by teachers in the future? How can students change their status from "receiver" to "thinker" and "explorer" in the classroom? And how can students use ChatGPT to support their own discovery learning? These are all questions that cannot be avoided by the change of school education and teaching methods in the era of ChatGPT.

3.1.3. ChatGPT Promotes the Development of Teacher-Student Relationship in Schools

The emergence of ChatGPT makes us start to think again about some old but often new questions: Who is a human being? and, why do people live? Does a machine live like a man, or does a man live like a machine? At the same time, thinking about the teacher-student relationship has drawn further attention. Since ChatGPT can replace much of the work of teachers, what role will teachers play in the growth and education of students in the future? How will teachers

educate students on moral and comprehensive qualities that AI cannot cover?

In the traditional teaching method, teachers play a leading role in the education of students, and teachers are naturally in a relatively lofty position. However, with the development of information technology and artificial intelligence, students have more channels to collect information related to the curriculum, the role of teachers in the course content delivery is gradually weakened, but this does not mean that the teacher-student relationship is about to fade. In the future, artificial intelligence will take on more of the task of knowledge transfer, and teachers will need to guide students to understand the ethics and morality of society and establish a correct outlook on the three concepts in a harmonious and intimate teacher-student relationship.

3.2. ChatGPT Poses Challenges to the Development of School Education

3.2.1. ChatGPT Brings Challenges to Teaching Morality and Ethics

Just like the "side effects" of artificial intelligence on education in the past, the use of ChatGPT also makes it easy for teachers to neglect teaching ethics. Problems such as cheating, creating false news, providing bad action plans, and appropriating the fruits of other people's labor already exist, and other unforeseen and difficult problems may arise in the future. In other words, ChatGPT is already having an impact beyond the original intent of its makers or users, and "threatens to erase the value of all maker activities and make the making of individual things less meaningful." [3]

Technological advances continue to change the way humans learn and affect the positive values of "effort" and "diligence" in the learning ethic. The emergence of internet search engines eliminates the need for learners to search for literature manually, and the popularity of statistical software eliminates the need for learners to spend time on tedious calculations and data processing. Similarly, with the trend of ChatGPT applications advancing, the connotation of traditional learning ethics must be adjusted when human-computer collaboration becomes an acceptable reality. Do students still need to be evaluated according to the old standard of "hard work"? If not, what kind of evaluation criteria are applicable to the ChatGPT era?

3.2.2. ChatGPT Threatens the Realization of Students' Individual Values

There is no doubt that the misuse of ChatGPT jeopardizes the ontological value of education, i.e. students' self-development. Previous AIs have proven that students have a natural inertia in learning, and when a learning tool is abused, many students acquire an irrational dependence on it, seeking existing answers and explanations directly without thinking when faced with a problem, and even using AIs to cheat on exams.

An important goal of learning education is to cultivate students' ability to think independently and solve problems, but the abuse of ChatGPT will undoubtedly affect the formation of students' values and character, which in turn will prevent students from obtaining a solid foundation of knowledge, jeopardize the overall development of students, and reduce the ontological value of education.

3.2.3. ChatGPT Demands Changes in the Teacher Evaluation System

At present, the evaluation of teachers in school education

mainly focuses on teaching hours, titles and ranks, and research achievements. In the era of ChatGPT, teachers can utilize AI to generate corresponding lecture programs, lecture ideas, obtain classroom materials more conveniently, and even directly produce needed research results. Under this influence, do the evaluation dimensions of teachers need to change? What kind of change needs to happen? These are all issues that need to be studied in school education.

4. Direction of Development: Deep Integration and Joint Development

ChatGPT's research and development and progress have created both opportunities and many risks and challenges for the development of school education. To give full play to the positive role of artificial intelligence in teaching practice and prevent the tendency of mechanized teaching, it is necessary to deeply integrate school education with artificial intelligence, so that the two can promote each other and develop together.

4.1. Establish a School Education System That is Compatible with the New Artificial Intelligence

4.1.1. ChatGPT Requires Changes in School Education Teaching Methods and Concepts

In the context of human-computer interaction, the traditional lecture method seems to make teachers lag behind ChatGPT, which has more knowledge reserves, stronger memory and extraction ability, and can present more information needed by students. This requires that teachers' teaching should shift from emphasizing knowledge transfer to emphasizing ability development, and the development of students' abilities inevitably requires more flexible and varied teaching methods.

Dewey said: education is life. Education is growth, education is the transformation of experience. Education itself is "living", the learning of existing knowledge should be combined with living education, into the cognitive structure of the students, the formation of individual experiences different from others, so that everyone becomes a different person. The ChatGPT can present to students a distillation of existing knowledge according to their requirements, but it cannot replace the process of students gaining experience through concrete practice, it cannot make students gain the feeling of interacting with real scenes and real people, and it cannot give students various emotional experiences in communication and interaction as their parents, relatives, friends, teachers and classmates do. The ChatGPT can improve the efficiency of students' knowledge learning, but it will not help students to become a socialized human being as the school and the family do. The emergence of the ChatGPT tells us, in a reverse way, the following The emergence of ChatGPT shows us that life education, labor education, practical education, social-emotional cultivation, and love education, which have been neglected in the past, are of great importance in students' "adulthood". Schools and teachers should work together with students' families and society to develop educational resources and create educational situations. The implementation of value guidance, emotional cultivation, creativity training, habit formation, career guidance, psychological guidance. It is more urgent than teaching book knowledge and should be the core of education.

4.1.2. ChatGPT Requires Changes in the Form of School Teaching Organization

The form of teaching organization is a certain structural way of implementing teaching activities, subject to the degree of popularity of education, the nature of the subject, the teaching task constraints, and its development and change also reflects the requirements of the mode of social production. In early education, due to the small number of students and the small amount of knowledge, the individual teaching method is commonly used to teach knowledge and develop abilities. With the development of economy and science and technology, knowledge has ushered in a big explosion, and the enhancement of the requirements for the quality of workers has also prompted more students to flock to the school to receive education, in this context, the classroom teaching method has become the optimal choice, which can maximize the efficiency of the knowledge transmission and cultivate a large number of laborers to adapt to the needs of the society. Currently, the advancement of artificial intelligence such as ChatGPT has challenged the class lecture system again, and the form of teaching organization must inevitably be combined with the development and application of artificial intelligence to make corresponding changes.

The ChatGPT era no longer emphasizes the teacher's indoctrination of students, and the focus of teaching has shifted from the transmission of knowledge to the cultivation of students' overall personality. Under this cultivation goal, what form of teaching should be used to carry out? Is it to improve the class lecture system? Or should we learn from western countries and adopt design teaching method and group teaching? Or should we put forward a new form of teaching organization in the light of the actual situation of Chinese education? This requires more in-depth thinking and research.

4.1.3. ChatGPT Requires Changes in the School Evaluation System

Changes in the school evaluation system include both changes in the student evaluation system and changes in the teacher evaluation system. For a long time, China's school education on the evaluation of students has always existed focus on the level of knowledge, light ability quality problem, although in recent years, constantly emphasizing the comprehensive quality of students and the cultivation of a comprehensive personality, but in some areas and some sections of the school, our evaluation system does not reflect this requirement, "only the theory of scores," the phenomenon has always been prevalent. The application of ChatGPT is also a reminder to the school management to pay enough attention to the comprehensive quality of students, and to include students' information collection ability, synthesizing and summarizing ability, and innovative thinking ability into the scope of students' evaluation and assessment, so as to prevent test scores from being the only indicator for evaluating students.

Similarly, in the assessment and evaluation system of teachers, the proportion of teaching hours and teaching tasks is gradually reduced, the application of new technologies and methods by teachers is emphasized, and more emphasis is placed on the cultivation of students' comprehensive abilities by teachers, and corresponding evaluation dimensions and indicators are established, which will be the direction of the reform of the future teacher evaluation system.

4.2. Cultivating Teachers with "Unique Values"

With the development of artificial intelligence technology, the main role of teachers is no longer simply to teach knowledge and skills, teachers will play a more powerful and unique "instrumental" role in the student learning process. In the future, teachers may not necessarily be proficient in all the knowledge of the subject areas they teach, but they must have the awareness and ability to cultivate students' ideals and beliefs, thinking and emotions, will and courage, reflection and introspection, creativity and innovation, imagination and aesthetics, and other human traits, as well as the skills and methods to stimulate students' interest in learning, establish new learning experiences and solve students' learning problems, and they must master the value of human-computer dialogue and build intelligent learning. The educational technology and educational wisdom of mining human-computer dialogues, building intelligent learning environments, and collaborating with artificial intelligence to educate people must be mastered. The rapid development of artificial intelligence will highlight the unique value of teachers as "human teachers" and strongly promote the further reshaping and upgrading of teachers' abilities. On the one hand, future teachers should implement the fundamental task of cultivating moral integrity, and be good at cultivating the necessary character and key abilities of students; on the other hand, they should strive to become "experts" with a certain degree of information technology literacy and skills, and be able to deeply understand the nature and value of technology, and even have a certain degree of breakthrough and creativity in technology.

4.3. Setting up Educational Goals Focusing on Students' Comprehensive Literacy

From the perspective of technological development trend, ChatGPT will be widely used in various fields in the future and be able to better process relevant information, will continue to improve the quality of text generation, and realize more accurate and intelligent prediction. Therefore, students should take the initiative to connect with the future and make improving IT literacy an important task in their learning and development. Schools and teachers should guide students to understand and master the language expression and use skills of AI such as ChatGPT, so that they can better converse and cooperate with AI; guide students to improve their thinking, judgment, and reasoning skills, so that they can accurately

understand the results generated by the use of AI; and guide students to improve their technological ethical literacy, critical thinking, humanistic sentiment, and curiosity, so that they can better harness the power of artificial intelligence rather than being manipulated.

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