The Impact and Challenges of ChatGPT on Foreign Language Education in China

Jing Yang

School of Foreign Languages, West China Normal University, Nanchong, China

Abstract

With the arrival of a new global technological wave, real-time generative interaction tools represented by ChatGPT are widely used in various industries. Against the backdrop of its enormous impact and challenges in the field of education, this article aims to explore the impact and challenges of ChatGPT on foreign language education in China, and propose corresponding response measures. However, challenges such as unstable language quality, lack of humanized communication, reliance on technological equipment, the need for manual supervision, and ethical privacy issues also need to be addressed. Therefore, when applying ChatGPT for foreign language education, we need to fully consider its advantages and limitations, combine traditional education methods, and jointly promote students' language learning and cross-cultural communication.

Keywords
ChatGPT, foreign language education.

1. Introduction

Recently, a large artificial intelligence language model called ChatGPT has become popular. As a language model, ChatGPT can bring many impacts and challenges to foreign language education in China. Essentially, ChatGPT is a large-scale language model (LLM) that employs a training approach of "reinforcement learning from human feedback" to understand and process human written and natural languages, with strong content generation capabilities. ChatGPT can respond to various input questions, engage in multiple rounds of dialogue with users, and assist humans in completing a series of tasks. In other words, ChatGPT's functions are not limited to simple chatting, but can also do homework, write papers, translate, create poetry, and even write code, check for program errors, and so on. According to a research report by UBS, ChatGPT attracted approximately 123 million active users in less than three months after its launch, becoming the fastest growing user application in history. Bill Gates, the founder of Microsoft, believes that ChatGPT will "change the world"; Linguist Noam Chomsky stated that ChatGPT is "essentially high-tech plagiarism" and "a way to avoid learning". The global explosion of ChatGPT has become an indisputable fact. At the same time, due to ChatGPT's powerful problem-solving and writing abilities, it immediately became a focus of attention in the education and academic circles. Jeremy Weissman pointed out that 'ChatGPT is a plague on education'. As educators, it is necessary to calmly consider and explore the application of artificial intelligence technology in the education ecosystem, in order to fully leverage the advantages of digital technologies such as ChatGPT and minimize the negative effects it brings to education.

2. The impact of ChatGPT on foreign language education in China

Microsoft co-founder Bill Gates is optimistic about the future of the artificial intelligence tool ChatGPT, stating that such tools are no less important than the invention of the internet and will "change our world". ChatGPT technology can be said to be one of the greatest advancements
in artificial intelligence capabilities since the advent of online search engines, and will provide enormous opportunities for progress in various aspects of society. ChatGPT and other intelligent systems have brought new opportunities to promote the development of education, mainly including restructuring the traditional learning model, changing the school teaching model, and accelerating the Digital transformation of education.

### 2.1. Reconstruct traditional learning mode

Learning mode refers to the learning activity structure and learning methods constructed under the guidance of the theoretical and practical framework of learning environment design to achieve certain learning objectives. It can be generally divided into two categories: exploratory learning mode and receptive learning mode. The inquiry learning mode emphasizes autonomy, inquiry and collaborative learning, innovative learning, and pays attention to the high-level thinking ability of learners; The receptive learning mode emphasizes the learning of others, acceptance and competition, inheritance, and pays attention to the learning of learners' basic knowledge and low-level thinking ability. At present, although curriculum reform is being carried out, teachers still occupy a dominant position in teaching, fully leading students' learning process in teaching process, teaching design, and teaching behavior. Students also rely more on the way teachers impart knowledge in the classroom, and their learning behavior, knowledge application, and knowledge accumulation mostly lack autonomy. Classroom teaching has the nature of passive acceptance. At present, the release of new artificial intelligence represented by ChatGPT, which can generate text based on their powerful algorithms, is based on a corpus of approximately 1 trillion words (from 60000 Wikipedia articles and millions of books and websites). Although such machines cannot replicate human in-depth analysis skills and critical thinking abilities, they can make suggestions for changes in writing style or grammar, and they can also provide learning assistance for students. Traditional course evaluation focuses on examining students' mastery of basic knowledge. However, due to the emergence of intelligent machines such as ChatCPT, it has become easier for students to acquire factual and conceptual knowledge. The traditional receptive learning model is no longer suitable for current and future society, and students need to master procedural and metacognitive knowledge more. The transformation of students’ demand for knowledge types will also promote the transformation of learning models from receptive learning to exploratory learning, and from learning low order thinking abilities to learning high order thinking abilities.

### 2.2. Transform the teaching mode of schools

Technology and education have always been interactive, and every iteration and breakthrough of modern technology will have a huge impact on teaching models. The rapid development of intelligent machines, represented by ChatGPT, has a huge driving force in changing the traditional "teacher student" centered teaching mode. The teaching mode of future schools will present a triangular state of "teacher student machine". ChatGPT, a generative and creative robot that constantly integrates into society and improves itself, has strong adaptability and can analyze data and generate text, which will bring great opportunities to teaching. Firstly, it can serve as a teaching assistant for teachers, providing teaching tools to help them prepare, attend classes, grade homework, and help teachers solve students’ doubts, saving teachers’ time and energy. Teachers can also use them to design learning tasks related to artificial intelligence, allowing students to participate in solving real-world problems and achieving learning goals. Secondly, ChatGPT can not only serve as a teaching assistant, but also as a virtual teacher. In most schools, a teacher usually needs to be responsible for guiding multiple students, and the heavy workload greatly affects the efficiency of teaching according to their aptitude. Intelligent systems such as ChatGPT can provide solutions and accurate answers when students encounter problems. If there are still doubts, further communication
with teachers can improve teaching efficiency and provide teaching quality. Finally, Suhomlinski once said that "real education is self education". Students can also become their own educators in the intelligent era. Students can use intelligent technology to provide personalized learning help, adjust learning goals and real-time feedback, complete tasks in the field of disciplines, and improve their creativity and critical thinking, so that their abilities in all aspects can be improved and meet the requirements of the digital era for talent.

3. Accelerate the process of Digital transformation of education

With the rapid development of intelligent technology, countries all over the world pay close attention to the Digital transformation of education. China also attaches great importance to the Digital transformation of education. The important spirit and core essence of the 20th National Congress of the Communist Party of China is to make good use of digital technology innovation in the digital age to contribute to social development and stability. "To promote the digitalization of education, building a learning society and a learning country with lifelong learning for all is called 161. Comrade Huai Jinpeng has also said on many occasions that he would comprehensively carry out digital strategic activities and promote the Digital transformation of education. The core of Digital transformation of education is to promote the digital transformation of all elements, all businesses, all fields and all processes 1171. The digital transformation of education refers to the transformation from traditional people in the context of the digital era. The transition from engineering education and learning to human-machine harmonious teaching and learning aims to cultivate digital awareness, cultivate digital thinking, enhance digital capabilities, and build a new ecosystem for educational development, forming a new pattern of digital education governance. Generative artificial intelligence, represented by ChatCPT, can be reasonably utilized as a useful assistant for almost all types of work. Its powerful interactive functions can promote human-machine integration in education, and it can serve as a "digital driving machine" in the education field to reshape the education ecosystem, including teaching space, teaching process, education evaluation, and education governance. It will also cultivate qualified talents for the digital age, It will lay a solid foundation for China's education Digital transformation.

The Challenge of ChatGPT to Foreign Language Education in China:
1. Unstable language quality: Although ChatGPT can generate natural language, its generated language quality is unstable, which may lead to syntax error, inaccurate translation and other problems, which may affect students’ learning effect.
2. Lack of humanized communication: Although ChatGPT can simulate human language communication, it lacks humanized communication methods such as emotional expression and intonation, which may affect students’ learning experience and communication effectiveness.
3. Dependency on technical equipment: Using ChatGPT requires reliance on technical equipment, such as computers, mobile phones, etc., which may lead to students’ dependence on technical equipment and a lack of practical language communication skills.
4. Manual supervision is required: The language generated by ChatGPT requires manual supervision to ensure its quality and accuracy. This requires a significant investment of manpower and time costs, which may limit its application in foreign language education.
5. Ethics and privacy issues: ChatGPT can generate any language, including inappropriate speech and false information. This may raise ethical and privacy issues and require strengthened regulation and management.

ChatGPT has brought some impacts and challenges to foreign language education in China. Although ChatGPT has the potential to provide more language learning resources and improve language learning efficiency, it still needs to address challenges such as unstable language quality, lack of humanized communication, reliance on technological equipment, the need for
manual supervision, and ethical privacy issues. Therefore, when using ChatGPT for foreign language education, it is necessary to comprehensively consider its advantages and limitations, maximize its advantages, and avoid its potential negative impacts. Therefore, in response to these impacts and challenges, we can take the following measures:

1. Combining traditional education methods: ChatGPT can serve as an auxiliary teaching tool, combined with traditional teaching methods, to better meet students' learning needs.

2. Strengthen technology research and development: In order to improve the application effect of ChatGPT in foreign language education, it is necessary to strengthen technology research and development, continuously improve its language generation quality and humanized communication ability.

3. Strengthen teacher training: In order to better use ChatGPT for foreign language education, it is necessary to strengthen teacher training and improve teachers' technical level and teaching ability.

4. Strengthen supervision and management: In order to avoid issues such as inappropriate speech and false information in foreign language education, ChatGPT needs to strengthen supervision and management, establish an effective regulatory system and management system.

5. Respect personal privacy: When using ChatGPT, it is necessary to respect personal privacy, protect students' personal information and privacy, and avoid their abuse or leakage.

In short, ChatGPT, as an emerging technological means, has brought many opportunities and challenges to foreign language education in China. When applying ChatGPT for foreign language education, it is necessary to fully consider its advantages and limitations, combine traditional education methods, strengthen technology research and development, strengthen teacher training, strengthen supervision and management, respect personal privacy, and other aspects for comprehensive consideration and management, in order to better play its role in foreign language education, improve students' language learning effectiveness and communication ability. In addition, it should be noted that the application of ChatGPT in foreign language education needs to be matched with educational goals and student needs. Therefore, educators need to choose appropriate ChatGPT application models and teaching methods based on students’ learning needs and levels, in order to better achieve educational goals. We look forward to the application of ChatGPT in foreign language education to provide students with a better learning experience and effectiveness. At the same time, we also look forward to avoiding its potential negative impact in the process of using ChatGPT, fully utilizing the language learning resources and personalized chemistry learning capabilities provided by ChatGPT, and providing students with a better learning experience and effectiveness. At the same time, it is necessary to strengthen technological research and development, strengthen teacher training, strengthen supervision and management, and respect personal privacy, in order to better play the role of ChatGPT in foreign language education and promote students’ language learning and cross-cultural communication.

References


