Research on New Development of Foreign Language Education in the Era of Artificial Intelligence

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Abstract. In recent years, the rapidly developing artificial intelligence technology is restructuring the foreign language education ecosystem, bringing unprecedented opportunities and challenges to foreign language education. In this historical context, foreign language educators must follow the trend of the times, actively embrace artificial intelligence technology, give full play to the role of teachers, innovate teaching models, strengthen the cultivation of composite foreign language professionals, promote the deep integration of artificial intelligence and foreign language education, explore new development paths for foreign language education, achieve intelligence, automation, and visualization of foreign language education, and create a new development pattern for foreign language education.

Keywords: Artificial Intelligence, Foreign Language Education, New Development.

1 Introduction

Recently, artificial intelligence technologies represented by ChatGPT and DeepSeek have developed rapidly, and significant breakthroughs have been made in fields such as machine translation and natural language processing, greatly advancing language intelligence. This not only reshapes people's lives and work patterns, but also has a profound impact on the construction of foreign language disciplines in universities, and puts forward new requirements for the cultivation of foreign language professionals. As an important component of the language service industry, foreign language education is inevitably impacted by the rise of artificial intelligence[1]. In this context, the future development direction of foreign language education has become a hot topic of discussion. In view of this, we will analyze the opportunities and challenges brought by the application of artificial intelligence technology to foreign language education, explore new paths for the future development of foreign language education, effectively impact artificial intelligence, accelerate the construction of a new foreign language education system, and have important practical significance for promoting the new development of foreign language education in universities in the new era.

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2 Opportunities Brought by Artificial Intelligence to Foreign Language Education

2.1 Improving Learning Outcomes

The application of technologies such as natural language processing, machine translation, and federated deep learning will accelerate the shift of foreign language learning towards more exploratory autonomous learning. Artificial intelligence has intelligent push function, which can recommend suitable exercises and materials based on students' learning progress and interests, adjust the difficulty of teaching content, provide personalized and adaptive learning experience, achieve goal oriented learning content, intelligent learning system, personalized learning process, humanized support services, and visualized learning effects, thus meeting the needs of different students. AI driven chatbots can simulate real conversation scenarios and help students practice speaking. Artificial intelligence has functions such as speech recognition, speech synthesis, and automatic scoring. Speech recognition technology can be used to develop voice assistants and voice control systems, while speech synthesis technology can be used for audio reading of written text. By utilizing the automatic grading function of artificial intelligence, students can receive real-time feedback while practicing speaking, writing, and listening. These feed backs can help students correct mistakes in a timely manner and improve learning outcomes.

2.2 Optimizing Foreign Language Teaching

With the application of artificial intelligence technology, foreign language teaching scenarios have become more diverse, real-time, and vivid. Artificial intelligence can create images, videos, animations, and games according to teaching objectives and content, providing rich resources for foreign language teaching, presenting teaching content in an intuitive, vivid, and interesting way, inspiring students to think, improving their learning interest, and providing diverse learning experiences[2]. Artificial intelligence can create immersive foreign language learning environments, simulate real language scenes, and enable students to communicate in a virtual world using foreign languages, thereby enhancing their language application abilities. Artificial intelligence can analyze large amounts of learning data, help foreign language teachers understand students' learning behaviors and characteristics, identify students' learning difficulties and strengths, and thus arrange teaching content, formulate teaching strategies and methods in a targeted manner.

2.3 Providing Job Opportunities

Artificial intelligence technology can provide many new foreign language related job positions, including language data analysts, instructional content designers, online language counselors, and more. Language data analysts analyze language data and use it as a basis to evaluate students' learning outcomes and teachers' teaching effectiveness. Instructional content designers develop language learning content suitable for

intelligent learning platforms or intelligent teaching platforms, combined with the application of multimedia and interactive technology, to enhance the learning experience. Online language counselors focus on utilizing artificial intelligence technology to provide personalized online language tutoring services for students based on analysis of their learning needs, interests, and performance. These new positions not only expand the application of artificial intelligence in foreign language education, but also bring new development opportunities to the education industry.

3 Challenges Brought by Artificial Intelligence to Foreign Language Education

3.1 Reducing Talent Demand

The basic demand of society for foreign language professionals is the ability to comprehensively apply foreign languages, especially the ability to output foreign languages such as writing and translation. However, with the rapid development of major language models such as ChatGPT and Gemini, beginner level foreign language learners are unable to achieve the language proficiency and efficiency of artificial intelligence models. Moreover, artificial intelligence can use natural and fluent foreign languages for oral communication, write high-quality foreign language articles, and effectively perform real-time conversion between different language texts. Artificial intelligence can translate headphones and applications in real-time, facilitating the conversion between multiple languages. In addition, AI driven language learning software can provide customized and highly interactive learning experiences, replacing traditional language learning methods, while intelligent virtual teachers and chatbots can provide language tutoring and practice opportunities 24 hours a day. All of these have reduced the demand for foreign language professionals in the market. Some positions that do not require high professional skills in foreign languages, including primary and intermediate translation and primary foreign language teaching positions, may be replaced by artificial intelligence, leading to a reduction in the employment market for foreign language talents.

3.2 Impacting Teaching Mode

The application of artificial intelligence technology in foreign language teaching has had a significant impact on traditional foreign language teaching models, while also promoting the automation and intelligence of the entire process of foreign language teaching and management. Artificial intelligence technology can analyze students' learning behavior, academic performance, and learning difficulties, determine the specific content of foreign language teaching, and provide students with the optimal learning path and personalized recommendations. It can also achieve automation and intelligence of testing, real-time evaluation of learners' oral, writing, and listening proficiency, provide detailed feedback and corrective suggestions, and replace traditional evaluation and feedback processes. Artificial intelligence technology has also

driven the development of online teaching models, enabling foreign language teaching to be conducted anytime and anywhere, greatly enhancing flexibility and convenience[3]. Virtual teachers and intelligent assistants can provide support for foreign language teaching. The intelligent foreign language teaching platform can not only provide a variety of learning resources, making the teaching content intelligent and data-driven, but also answer students' questions, provide a large number of test questions and intelligent evaluations, and push personalized learning materials based on students' actual situation and learning interests.

3.3 Shaking Teaching Subject

The teaching subjects include teachers, students, parents, school administrators, education administrative departments, etc. Among them, teachers and students are particularly important. With the development of artificial intelligence technology, artificial intelligence has begun to play the role of a teacher, and large language models with outstanding foreign language understanding and application abilities have also begun to emerge as teachers on the historical stage, leading to changes in the subject of foreign language teaching. Traditional foreign language teachers mostly conduct teaching based on prior knowledge and teaching experience, but the real-time exchange of big data not only provides massive information, but also undermines the knowledge authority of teachers, and puts higher demands on their knowledge system and teaching ability. Therefore, teachers should not only play the role of knowledge transmitters, but also become knowledge producers, constructors of learning situations, organizers and guides of learning, as well as learning partners and mentors for students. The role of students also changes with the role of teachers. Students are no longer passively learning knowledge and skills, but actively participating in the teaching process and knowledge construction with the assistance of artificial intelligence.

4 New Development Path of Foreign Language Education

4.1 Strengthening Talent Training

Foreign language education needs to seize the opportunity of interdisciplinary construction, accelerate the deep integration of intelligent technology and foreign language teaching, and train compound foreign language talents with first-class professional abilities and international level. Universities can offer courses related to artificial intelligence, such as natural language processing, machine translation, machine learning, post translation editing, and machine translation quality evaluation, to help students understand and master the basic principles of artificial intelligence and train their scientific literacy. Universities can establish majors related to artificial intelligence, such as language intelligence, language data science, and language science, to meet the needs of the development of the artificial intelligence industry[4]. Universities can offer courses or majors related to humanities to enhance the competitive advantage of foreign language professionals. Universities can offer courses on foreign literature and culture, foreign history, foreign politics, Chinese literature and culture,

Chinese history, Chinese philosophy, etc., striving to train talents proficient in foreign languages, cultures, foreign history, or foreign politics. Universities can promote the intersection and integration between foreign language disciplines and other humanities disciplines, establish the "Foreign Language Discipline+Humanities" major, covering majors such as "Foreign Language and Literature+Regional and Country Studies" and "Foreign Language and Literature+Law", and train compound foreign language professionals who are proficient in foreign language and literature, and master relevant knowledge and skills in humanities. In this way, universities can enhance the core competitiveness of foreign language talents and effectively impact artificial intelligence.

4.2 Optimizing Teaching Mode

The development of artificial intelligence technology has changed the channels and ways in which humans acquire knowledge, promoting a shift in educational concepts and innovative teaching modes. Universities should fully utilize artificial intelligence technology to promote intelligent, visual, and personalized innovation models in foreign language teaching. Universities can develop and apply an intelligent foreign language teaching platform, presenting teaching content in the form of charts and data analysis[5]. The continuous emergence of teaching and research products such as human-computer dialogue communication, reading grading, and intelligent assessment has promoted the development of new teaching models through the achievements of intelligent technology research. Universities can construct a corpus of classroom teaching discourse and an intelligent evaluation system, providing online evaluation resources and services for foreign language teaching through an intelligent evaluation cloud platform, effectively integrating daily teaching, self-directed learning, and testing evaluation. Through a personalized question bank management system, universities can cover the entire evaluation process, establish a multidimensional evaluation system, and conduct digital teaching evaluation. Universities can build a personalized learning platform and provide customized learning resources. They can create an immersive language learning environment, simulate real language usage scenarios, and enhance students' language practice abilities. Based on the smart classroom, they can build a blue box virtual studio, virtual simulation laboratory, oral training and simultaneous interpretation laboratory to provide real-time feedback on students' learning status and reliable support for personalized learning.

4.3 Firming Teaching Subject

In traditional foreign language education, teachers are usually considered as the main teaching subjects, the main designers, organizers and implementers of educational activities. Nowadays, artificial intelligence technology empowers teaching, allowing students to actively discover and discern knowledge, thereby achieving self-directed learning. During the teaching process, both teachers and students are activated, and student participation significantly increases. Based on this situation, teachers need to abandon their inherent beliefs and build a new type of teacher-student interaction

relationship. Teachers should improve their educational technology level, enhance their digital literacy, strengthen digital classroom management, remind students not to focus solely on technology, and not neglect the cultivation of critical thinking. Teachers should actively respond to the impact of various new artificial intelligence technologies and maintain a firm belief in their career positioning. The superiority of teachers over artificial intelligence lies in their ability to provide emotional support, motivate and guide students to engage in critical thinking and creative expression, help students understand and grasp humanistic ideas, provide humanistic education to students, and offer humanistic care[6]. And artificial intelligence finds it difficult to complete these complex tasks. Although students' subjectivity is stimulated and intelligent technology is constantly developing, the task of "imparting knowledge and solving doubts" can only be completed by teachers.

5 Conclusion

Foreign language education has trained a large number of outstanding talents and made important contributions to China opening up to the outside world. But with the changing international situation and the impact of various artificial intelligence technologies, foreign language education is facing new opportunities and challenges, as well as new development space. Foreign language educators must keep up with the trend of the times, keenly perceive the enormous potential of artificial intelligence in the field of language applications, make good use of technological advantages to optimize teaching models, enhance the status of teachers, train versatile talents with multiple abilities, and embrace the new development pattern of foreign language education with an open attitude to meet the development needs of the country and society.

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