Research on the principles and implementation of English translation under AI intelligent technology

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Abstract. With the development and transformation of society, English has gradually become one of the invisible requirements of society for talents, and English learning has become the general trend. The rapid development of artificial intelligence (referred to as AI) technology has profoundly affected all walks of life in life. Among them, machine translation involved in the language service industry, known as "AI in AI", has always been regarded as the last highland of human wisdom. It has also attracted many universities and research institutions to conduct research on it. It has attracted corporate giants including Google and Ali to actively invest. In this context, in terms of English translation, machine translation has gradually become equal to human translation to a certain extent. Many colleges and universities have begun to put artificial intelligence technology into English translation teaching, and study how to use artificial intelligence to improve classroom quality. At the same time, artificial intelligence translation also has certain shortcomings. This paper explores the practice of English translation teaching in colleges and universities under the background of artificial intelligence, and further explores the advantages and disadvantages of artificial intelligence in college teaching practice.

Keywords: artificial intelligence; college English translation; practical research

1 Introduction

With the development of AI technology today, all walks of life are scrambling to apply AI technology, and education is not to be outdone. In the face of education, it can be said that "Al technology penetrates into the essence of learning and the core of education" China's Al+ educational technology is at the forefront of the world, but the practical application of Al+ educational technology lags behind [1]. The college stage is an important turning point on the road of students' learning and growth. The main goal of teachers is not to help students take exams, but more importantly, to equip students with the ability to adapt to society. Teachers should focus on improving students' oral English ability and translation ability, so as to lay a solid foundation for students to enter society and work soon [2]. In the context of artificial intelligence, teachers need to find new and effective teaching concepts to improve the practical effect of translation teaching. This is a problem that college teachers have paid great attention to in recent years. Appropriate application of artificial intelligence in English translation teaching in colleges and universities can greatly stimulate students' learning enthusiasm, help

students to think creatively, and encourage students to actively participate in English translation learning.

2 Intrinsic attributes of artificial intelligence in English translation activity classes in colleges and universities

2.1 Inducibility

Artificial intelligence can guide English translation to a certain extent, and guide students to analyze English, thereby enhancing the accuracy of translation accuracy. Therefore, English translation needs to pay attention to independent learning. By training English translation skills, we can ensure that the translation teaching content is in line with the context, so as to enhance the cognition of English [3]. Under the action of artificial intelligence, students can quickly go deep into the context and increase students' understanding of the translation language, thereby promoting the improvement of students' English translation ability, enabling students to better communicate in English and understand the meaning expressed by the other party [4]. Through English translation, students can gain more solid basic knowledge from translation, encourage them to actively participate in translation activities, increase their participation in English classes, and ensure the effectiveness of English translation courses. In the process of English translation, it is necessary to evaluate students' translation in a timely manner so that students can understand their own translation skills. Artificial intelligence can be used to evaluate students' translation level, so that teachers can manage their translation status, improve translation teaching, and enhance the pertinence of translation teaching. In addition, it can also judge the accuracy of students' translation, so that teaching can be selected according to the translation ability, students can read the translation independently and improve the efficiency of English translation.

2.2 Theoretical

English translation learning methods are highly theoretical, requiring students to quickly master English translation methods in order to correctly understand English [5]. In the English classroom, we also need to pay attention to the correct use of translation methods. In addition, we must also pay attention to integrating into the cultural atmosphere of English teaching, so that students can quickly master English, thus ensuring the accuracy of English translation methods; however, colleges also need to pay attention to the effectiveness of English translation, provide students with accurate directions, so achieve better translation goals. The college's English translation teaching time is generally 16 hours, and students must improve the quality of translation through teaching training [6]. Therefore, it is necessary to study and improve the English classroom technology in universities, so that computer technology can penetrate into education, so as to improve the intelligence of students in English translation. Because the computer has a very good error correction function, it can grasp the students' translation situation and improve the English translation teaching. In addition, in order to cultivate students' English translation ability, it is necessary to adopt an all-English teaching form, so that students can better integrate into the English translation environment and improve the utilization rate of the classroom.

3. Practical content of English translation activity courses in colleges and universities under the background of artificial intelligence

3.1 Improving artificial intelligence translation technology

Translatology is an important theoretical basis of language translation in our country. However, English translation teaching under the background of modern artificial intelligence can bring great help to the research and development in the field of cultural translation [7]. Therefore, in order to make important progress in English translation teaching in Chinese universities, China's new generation of artificial intelligence translation research also needs to be further improved. In the past, translation training in colleges and universities mainly adopted large-scale subject training methods to make students familiar with translation rules and gain translation experience [8]. Traditional translation tools are mainly paper dictionaries. Now, in the context of artificial intelligence, artificial intelligence translation technology can be updated and transformed to adapt to the university's translation philosophy, ensuring that English translation classes can be changed with the help of new artificial intelligence translation technology. In the field of innovation ability cultivation, we need to pay more attention to the use of artificial intelligence translation technology, not just learning traditional translation ability, so as to meet the new needs of English translation in the new era. To this end, in terms of English translation, the British Academy can also develop an artificial intelligence translation program. The social media giant Meta (formerly Facebook) has created an artificial intelligence model capable of translating 200 different languages, including many languages that are not supported by current commercial tools. Recently, the project will be open-sourced so that more people can build on its work for in-depth development [9]. Allow users to directly understand the results of artificial intelligence translation. Therefore, teachers of English colleges should change the original English translation course system and teaching atmosphere, so that students can form new reading concepts in the future reading process, so as to improve the quality of English translation teaching as much as possible.

3.2 Emphasis on situational cognition translation guidance

The two different types of languages, English and Chinese, have great differences in their language and cultural backgrounds as well as their language expressions. Therefore, college English translation teaching based on artificial intelligence technology should pay attention to the guiding function of situational knowledge [10]. On the one hand, when college students learn English translation, they can broaden the learning channels of translation activity courses through education and other learning channels, and provide them with special human translation activity courses and artificial intelligence litigation translation activity courses for different course areas. This will facilitate their independent thinking in different artificial intelligence translation activities, making it easier for students to quickly become familiar with English translation functions in the later stages [11]. In addition, college students should develop cross-language cultural awareness when practicing English translation. Therefore, in the stage of translation courses, teachers must provide students with a cognitive situation, so that students can correctly translate English words and sentences, and constantly introduce Western cultural background to students, so that students can have a stronger cross-language cultural awareness and reduce English Translation errors in translation learning form a new understanding of English translation from the ideological point of view.

At the same time, teachers should also do a good job of guiding when teaching English translation activities, including helping them make full use of online translation programs or other artificial intelligence methods when they encounter unfamiliar vocabulary or uncalibrated vocabulary. It not only enhances the credibility of translation results, but also enables students to realize the important value of English translation activities in their English learning career.

3.3 Realize the integration of artificial intelligence and translation

To improve classroom quality and train students' English translation ability, it is necessary to effectively integrate artificial intelligence technology and translation activity courses, which not only reflects the effectiveness of artificial intelligence translation technology in the new era, but also helps students establish a new concept of language communication [12]. The effective use of artificial intelligence technology enables students to use the "AI program" based on English translation technology to communicate intimately and strengthen their flexible translation skills. For example, teachers can let students translate directly against the translation content provided on the translation screen of the artificial intelligence system, and then the school will judge the correctness of the translation rules through the translation information through voice recognition, and then give important replies to it. Our country adopts this artificial intelligence method in the Putonghua test to ensure that each student can find a suitable translation method in actual communication.

The so-called artificial intelligence technology is a new type of science and technology produced by simulating the cognitive characteristics of the human neural network, which can respond to the consciousness of the human body [13]. If it can be integrated into the English translation course, it can not only greatly improve the classroom effect, but also enhance students' interest in learning the course. At the same time, teachers also need to consider the importance of probationary education factors, so that students can form a higher subject quality in translation, so as to adapt to the high-quality teaching concept of the new era. Only by fully integrating artificial intelligence translation into college English translation can the translation ability of college students be improved to the greatest extent. As shown in Figure 1, the workflow of the artificial intelligence translation system.
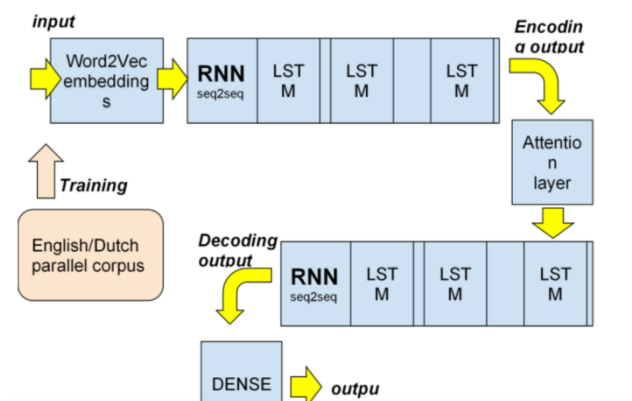

Fig.1. The workflow of the artificial intelligence translation system

4. Existing problems in the classroom teaching of English translation in colleges and universities

First of all, due to the continuous reform and innovation of English classrooms in colleges and universities, more and more emphasis is placed on students' comprehensive abilities and characteristics. Translation ability is an essential prerequisite to ensure the social development and survival of students, so it has increasingly attracted the attention of university teachers.

Secondly, the compilation of college English textbooks focuses on the basic knowledge of students, leaving little room for them to think. The focus is on the lack of certain pertinence in the formulation of translation content, and there is no targeted translation teaching for students' professional characteristics. This is not conducive to cultivating their actual reading ability, let alone cultivating their reading ability in the field of professional language.

Finally, the teaching content and teaching form of the current teaching practice of English translation in colleges and universities should be changed. With the continuous development and reform of language, the content and methods of language teaching are also constantly changing. In addition, the single language classroom method also brings boring feelings to the students, and the lack of interest in the traditional classroom teaching method is also a major phenomenon at present.

4. The practical and innovative path of English translation activity courses in colleges and universities under the background of artificial intelligence

4.1 Introduction of artificial intelligence facilities

In the context of artificial intelligence, attention should be paid to the deployment of intelligent facilities to create a basic environment for intelligent English teaching and promote the integration of artificial intelligence into work [14]. As for English translation, the school should make reasonable use of the equipment. Under normal circumstances, it is also necessary to carry out courses in multimedia classrooms, which is also conducive to the expansion of school hardware facilities and make the school hardware space more perfect. At the same time, we should also pay attention to the reasonable use of advanced software technology, provide students with intelligent translation software, and use it as a task of translation teaching, and the task of artificial intelligence has great educational significance, making translation teaching more practical[15]. To better integrate artificial intelligence, teachers must master intelligent software technology, correctly apply intelligent technology, ensure the correctness of technology use methods, and promote the development of intelligent translation teaching. Artificial intelligence is the key to ensuring the quality of translation teaching, and artificial intelligence must be used reasonably to create a good basic teaching environment.

4.2 Learning with artificial intelligence

In the English translation activity class, it is necessary to determine the dominant position of students, improve students' independent learning ability, and help teachers use artificial

intelligence to work. In translation teaching, teachers should strictly follow the curriculum and make full use of various functions of artificial intelligence [16]. On the one hand, it can provide students with rich learning materials, create a good independent learning environment, and promote the development of translation teaching; on the other hand, it can stimulate students' interest in learning. The artificial intelligence environment enables teachers and students to communicate better, solve students' translation problems, and in turn improve students' translation ability. In addition, artificial intelligence can also recommend translations to students, which is convenient for students to deal with similar translation problems, so that students can be fully exercised, improve their English translation ability, improve their problem-solving ability, and achieve good translation results.Figure 2 below is an example of the Transformer translation model structure.Figure 3 shows an example of AI learning routes.
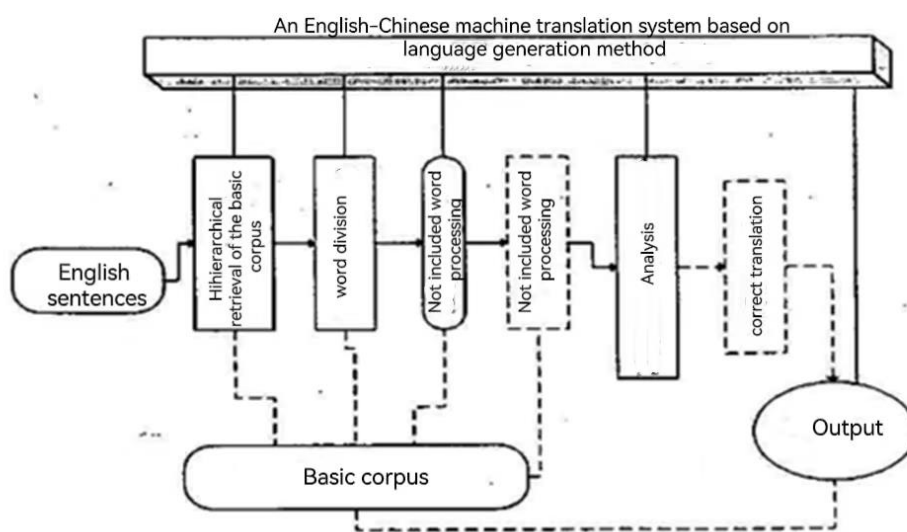

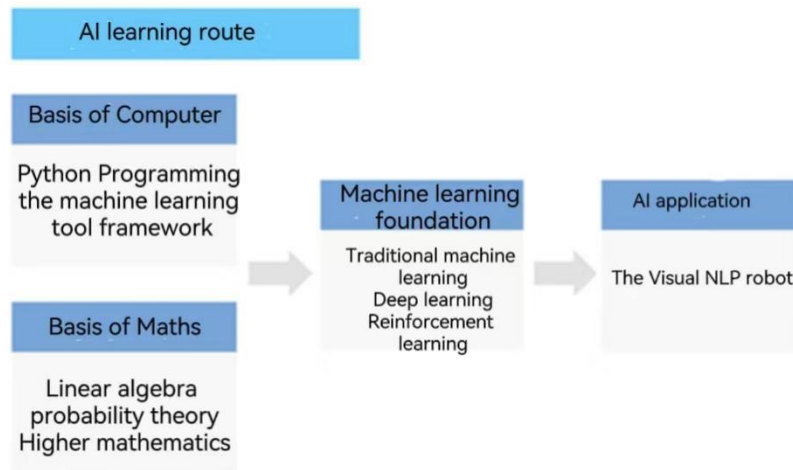**Fig. 2.** Grammar-based English-Chinese translation system

Fig. 3. Artificial intelligence learning route

4.3 Clarify your own role positioning

In translation teaching, teachers must clarify their own roles, let students become the main body of translation teaching, change teaching concepts, and improve the perfection of teaching methods. In order to improve students' practical ability, it is necessary to change the traditional teaching methods and improve the efficiency of English teaching [17]. English translation teaching must pay attention to practicality, and a lot of learning and training should be carried out for students, so that students can participate in English translation, which is convenient for teaching and allows students to complete English translation independently. The same is true in the context of artificial intelligence, which needs to play a role in learning. It not only improves students' translation experience, but also has strong error correction ability, improves students' translation accuracy, and helps to improve students' translation ability. In the form of teaching, teachers must pay attention to the application of artificial intelligence, improve students' interest in learning, and ensure the smooth development of teaching.

5. Conclusion

To sum up, under the background of artificial intelligence, college English translation teaching practice needs to conform to the development trend of the times, apply artificial intelligence into the teaching process, and explore the unique advantages of artificial intelligence in teaching practice, so as to improve the teaching quality. For this reason, colleges and universities and teachers need to conduct in-depth research and comprehensive discussions, adopt scientific and effective strategies, and effectively integrate artificial intelligence into the practice of college English translation teaching, so as to cultivate all-round talents, promote social development, and promote future translation Contribute to the development of learning in a positive direction.

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