The Reform of Cultivation Mode of Chinese University English Translation Talents in the Age of Artificial Intelligence

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Abstract

The advent of the era of artificial intelligence will make artificial intelligence steadily integrate into the cultivation mode for translation talents, greatly innovate the concepts and methods of translation teaching in college English in China, and continuously improve the quality of talent cultivation. The paper aims to analyze the connotation and main characteristics of artificial intelligence, and then probe into the current situation of English translation talents cultivation in Chinese universities. Finally, it puts forward the path of reform of the cultivation mode for translation talents from the aspects of the objectives of translation talent cultivation and curriculum system, teaching philosophy and teaching methods, teaching resources and teaching tools as well as the teaching evaluation.

Key words: Artificial intelligence; Chinese university; English translation; Teaching mode; Reform

The age of artificial intelligence has arrived. In July 2017,the State Council of China issued" The Development Plan of the New Generation Artificial Intelligence", which proposed that "the development of intelligent education will help intelligent technology promote the reform of talent cultivation mode and teaching method, and build up a new educational system that cover intelligent learning and interactive learning"[1]. In March 2018, Premier of the State Council of the People's Republic of China pointed out in a government report that "strengthening the development and application of new generation of artificial intelligence and promoting 'Internet +' in many fields such as medical care, pension, education, culture, sports, etc."[2] Artificial intelligence has had a significant impact on English translation education in China. On the one hand, it has given birth to a new perspective and new format of English translation education, and on the other hand, it has also promoted the reform of the English translation talent cultivation mode. How to respond to the innovation of artificial intelligence as a major technology and concept through the transformation of translation teaching, and to cultivate translation talents who can adapt to future social development and maintain human self-esteem are propositions that translation teachers and researchers must reflect on.

1. FIRSTLY, THE CONNOTATION OF ARTIFICIAL INTELLIGENCE

It is generally accepted by academics that the concept of artificial intelligence (AI) originated from the Dartmouth "Summer Research Project on Artificial Intelligence" initiated by McCarthy, Minsky and Shannon in 1956, (Dong, 2009) Artificial Intelligence was first proposed as an academic term at this conference. Since then, the development of artificial intelligence has been ups and downs, but it really moves towards the level of knowledge

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[1] *Notice of the State Council of the People's Republic of China on Issuing the Development Plan on the New Generation of Artificial Intelligence.* Retrieved from http://www.gov.cn/zhengce/content/2017-07/20/content_5211996.htm
[2] *Report on the Work of the Government of the People's Republic of China in 2018.* Retrieved from http://www.mod.gov.cn/topnews/2018-03/05/content_4805962_4.htm

The Reform of Cultivation Mode of Chinese
University English Translation Talents in the Age of
Artificial Intelligence

application, which has more general practical value, is the deep learning technology proposed by Geoffrey Hinton and others in 2006. (Liang & Liu, 2018) The deep learning technology means categorizing patterns with the use of multi- layers artificial intelligence neural networks and data sets. With this technology, artificial intelligence surpassed human eyes for the first time in terms of the accuracy of image recognition, and gained breakthrough development in 2015. (The Electronic Frontier Foundation, 2017) Microsoft reduced the word error rate of English speech recognition to 5.9% in 2016. (Liang & Liu, 2018) It shows that artificial intelligence is almost comparable to humans in terms of language applications and image recognition.

Academic circles have different definitions as for the concept of artificial intelligence,. The artificial intelligence in this research mainly refers to the core technologies of language processing, logical operations, and intelligent speech, supported by artificial intelligence chips, cloud computing platforms, and big data information and the concept along with methods which are mainly applied to the language and image recognition. Under this circumstance, integrating artificial intelligence into English translation teaching can innovate the cultivation mode of English translation talents and better the quality of talent cultivation.

2. SECONDLY, THE CHARACTERISTICS OF ARTIFICIAL INTELLIGENCE APPLIED TO ENGLISH TRANSLATION TEACHING

The rapid development of artificial intelligence translation technology not only profoundly changes the format of English translation, but also brings major opportunities for the development of related industries. The typical characteristics of artificial intelligence technology applied to English translation teaching are manifested in customized teaching modes, intelligent teaching platforms and automated data processing.

2.1 Customized Teaching Mode
Artificial intelligence can self-learn and construct students 'learning models based on students' personal data, performance records, learning characteristics, social preferences and other databases, and will constantly modify the learning model parameters from the updated data information, which can help to realize individualized and differentiated customization of students learning, and assist teachers in better analyzing their academic situation in order to teach according to their aptitude. At the same time, teachers can monitor each student's learning situation, learning characteristics, and personalized learning needs through an intelligent teaching system, so as to positively promote dynamic lesson preparation and teaching quality.

On the other hand, the customized teaching mode can realize the push of students' individualized learning resources and learning services, and help students improve their autonomous learning ability. It not only makes students happy to learn, but also find adaptive learning methods and learning ideas. Like Knewton, the most influential adaptive learning platform, it can provide students with adaptive customized learning content and learning predictive analysis, so as to achieve customized learning experience.

2.2 Intelligent Teaching Platform
With the advent of the "Internet + knowledge" era, information resources have grown exponentially. The vast amount of information data contains rich value and energy, making the English translation teaching platform resources increasingly rich and diverse, but the problem of information load also makes it difficult to identify the compatibility of teaching resources, and even takes more time to sift, discriminate and deploy high-quality teaching resources. The artificial intelligence teaching platform can solve this confusion well. Based on knowledge expression and intelligent algorithms, artificial intelligence constructs algorithm models, and then relies on big data foundations and high-performance operations to build intelligent teaching platforms, which can accurately and quickly provide suitable teaching resources and environments for English translation teaching.

Nowadays, intelligent teaching platforms are springing up and developing, such as WETRANS, translation school, Blackboard, Moodle and i Smart translation teaching platform, etc. In the future, more and more intelligent English translation teaching platforms will appear. With the integration of online teaching environment and offline living environment, these rich and diversified educational resource allocation will continuously bring new learning experiences to learners.

2.3 Automated Data Processing
Compared with humans, artificial intelligence is better at memorizing, standard-based logical operations, and automated data processing, especially evaluating well-defined tasks. Artificial intelligence can realize automatic review and evaluation, and timely feedback information and data to teachers and students, which not only helps teachers have more energy to focus on classroom teaching, but also improves the timeliness and accuracy of evaluation feedback, and improves the efficiency of teaching and learning. In recent years, with the rapid development of intelligent technologies such as language translation and text mining in English translation, the automatic assessment technology for text subjective questions has gradually matured, and it has begun to be applied in large-scale English translation examinations in China, which produced a good effect.

3. THIRDLY, THE CURRENT SITUATION OF ENGLISH TRANSLATION TALENT CULTIVATION IN CHINESE UNIVERSITIES IN THE ERA OF ARTIFICIAL INTELLIGENCE

3.1 Focusing on the Cultivation of Practical Interpreter and Translators and the Setting of Traditional Translation Courses

The author found that many universities in China still emphasize to cultivate practical middle and low port interpreters and translators, rather than take the "artificial intelligence + English translation" inter-disciplinary talent cultivation as the main goal. The reason is that many executives, teachers and students believe that artificial intelligence is just technology, lacking emotional concern, cultural cognition and value judgment, and it is difficult to replace humans. To become excellent translators and interpreters, the biggest challenge is language and culture difference. Even if skillfully employing artificial intelligence technology in translation, it is somewhat difficult to help understand cultural differences. Therefore, artificial intelligence has little impact on talent cultivation, and it is still the mainstream to cultivate practical interpreters and translators.

In terms of curriculum, traditional translation courses are still the main ones, and the courses involving artificial intelligence are few. For example, some foreign language universities have a large number of various professional basic courses, professional development courses, and professional orientation courses, but only in the translation introduction course, artificial intelligence-related theories is mentioned as secondary points. Most of the courses offered are mainly translation theory, translation technology and industry courses are scarcely provided, and post-editing courses are fewer.

3.2 Focus on Lecture-Based Teaching Methods and Traditional Translation Teaching Concepts

Most of the English translation teaching in Chinese universities is still based on the traditional lecture-based teaching, and there are fewer intelligent classroom teaching methods combined with artificial intelligence. Although the intelligent translation teaching system or artificial intelligence robot is connected to the translation classroom, which can effectively improve the teaching efficiency and the quality of talent cultivation, the author found that there are too many difficulties in promoting artificial intelligence teaching systems or robots to enter the classroom, such as insufficient capital investment, insufficient staff and student training, the poor cooperation of the departments among the office of academic affairs, finance and information. Therefore, lecture-based teaching, student participation, assignment, consolidation and check are still the mainstream methods of college English translation teaching in China.

In the aspect of teaching concepts, most teachers still put focus on traditional translation knowledge teaching, which aims to improve English translation ability, and seldom involve the combined use of artificial intelligence and translation. For example, teachers who teach translation pay more attention to the choice of words, sentence structure, and meaning; while teachers who teach oral and visual translation attach more importance to students' translation manners, including the continuity and fluency of sentence translation, and the ability to handle crises. Most teachers' teaching ideas focus less on the requirements and goals of artificial intelligence translation, and less on students' ability of "human-computer collaboration".

3.3 Less Use of Intelligent Technology in the Access to Teaching Resource and Classroom Teaching Tools

In translation classroom teaching, teaching materials generally cannot meet the teaching needs. Teachers need to supplement the classroom teaching content, including text, video and audio, and other forms of learning materials. But teachers tend to use Baidu to search and accumulate in stead of applying the artificial intelligence products. This case brought about the heavy workload and the hard matching of the teaching. Just like Superstar Learning Link currently used by many teachers, yet most of them only used for data upload and student attendance statistics. Classroom teaching tools are also less involved in artificial intelligence and are still dominated by traditional teaching. In terms of student learning, teachers will also recommend students to use artificial intelligence-related software, but they are mainly low-intelligence autonomous learning aids, including applets, public accounts, app and the other forms. Numerous intelligent learning tools do make students collect and contact those diverse learning materials more convenient, but the massive amount of information materials also brings the trouble of information load and identification, and low learning effectiveness and low adaptability.

3.4 Teacher-Oriented Summarized Teaching Evaluation Methods

Teaching evaluation is an important part of English translation teaching. The author discovered that the evaluation of English translation course in most of Chinese universities are still under the guidance of teachers and consist of two parts: normal grades and final exam grades. The proportion of process assessment accounts for no more than 50%, usually 30% at most. Normal grades include attendance, class participation and assignment; Final exam assessment generally account for more than 50% of the total score, mostly 70%, primarily through paper or computer-based tests. Teachers' feedback on students' learning is mostly carried out in the way of classroom assignments, and seldom select personalized feedback and tutoring. It can be seen that artificial

The Reform of Cultivation Mode of Chinese
University English Translation Talents in the Age of
Artificial Intelligence

intelligence technology is rarely used in Chinese college English translation teaching to analyze personalized students' learning situation.

4. FOURTHLY, THE PATH OF CHINESE COLLEGE ENGLISH TRANSLATION TALENT CULTIVATION MODEL IN THE ERA OF ARTIFICIAL INTELLIGENCE

4.1 Optimize Talent Cultivation Goals and Curriculum System

In the era of artificial intelligence, Chinese universities should optimize the talent cultivation system as soon as possible, and adjust the cultivation objective of practical low-to-medium port translation talents to the inter-disciplinary talent of "artificial intelligence + English translation" so that artificial intelligence can better integrate and serve the cultivation mechanism of English translation talents. The rapid development of speech intelligence will reduce the demand for ordinary low-end human translation. Therefore, it is essential to vigorously promote the role of language intelligence technology and corpus technology in the cultivation of inter-disciplinary talents of "artificial intelligence + English translation". (Zhao, 2019) On the other hand, it is necessary to establish the latest intelligent English translation curriculum system, add and open artificial intelligence translation-related courses timely in order to lay a good foundation of intelligent knowledge and technology for students. Attention should be paid to the systematicness and coordination of the types of courses, and to highlight the application-oriented courses of the industry. Meanwhile, it is also necessary to reduce the proportion of translation theory courses, increase the proportion of translation technology and industrial courses, especially to strengthen the content courses of post-editing, enhance students' technology and skills, and emphasize "coordination of translation and teaching, dual-track integration", (Zhao, 2019) which respond to the demand for translation talents in the artificial intelligence era.

4.2 Develop Teaching Concepts and Methods of Teacher-Student Interaction and Human-Machine Collaboration

In the era of artificial intelligence, effective teaching concepts and methods are not only reflected in teacher-student interaction activities, but also in human-machine collaboration activities. Through the application of intelligent teaching technology in English translation teaching, the traditional teaching mode of teacher giving lectures and student listening to lectures has been changed. Students no longer learn mechanically and passively, but naturally become individualized and autonomous learning subjects. Many students are not keen on studying translation theory, but prefer to watch foreign films with original sounds. Teachers can use the intelligent platform to play the latest English videos, and do the translation task together with students, and then use intelligent translation software to translate. After that, students are allowed to compare the translation of intelligent machines with human translation. This can not only improve the collaboration of teachers and students as well as human-machine, but also better students' translation skills, and allow students to truly feel the differences in Chinese and English language, especially the differences between human translation and intelligent machine translation. Finally, the teacher can teach the students the translation-related theoretical knowledge based on the formal materials, so as to increase students' interest in English translation learning, and improve the teaching level of English translation.

4.3 Adopt Intelligent Teaching Platforms to Innovate Classroom Teaching Tools and Teaching Resources

Under the context of artificial intelligence, various intelligent platforms for English teaching and corresponding intelligent software for translation teaching have developed rapidly, and the technology has become more mature and stable. Such as Superstar Learning Link, Enterprise WeChat, Tencent Class, etc. are widely used intelligent teaching platforms. The popularity of laptops, tablet computers and smart phones has also provided support for the use of various intelligent teaching platforms. Teachers should establish new teaching concept of the intelligent era, be familiar with various intelligent translation teaching platforms, learn the intelligent translation teaching software and operating procedures of the main units, in order to master intelligent teaching technology and innovate teaching methods. Moreover, teachers should make full use of artificial intelligence algorithm models, conduct extensive search and integration of teaching materials, and accurately and quickly provide highly matching teaching resources and environments for teaching. At the same time, for students' individualized autonomous learning, teachers should use the advantages of artificial intelligence's big data operations and customization to help students obtain more targeted autonomous translation learning resources and environments to improve the effectiveness of student learning.

4.4 Innovate Teaching Evaluation Methods Through Artificial Intelligence Automated Data Processing Technology

Intelligent automation technology has great advantages in information memory, rule operations and data processing. Thus teachers should make full use of artificial intelligence technology systems to innovate teaching evaluation methods. The artificial intelligence based on big data makes the evaluation of students and problems more accurate and scientific. The principal part

of evaluation should be shifted from teacher-oriented evaluation to joint participation of teachers and students. However, intelligent evaluation system can provide a path for all users (teachers and students) to participate in evaluation, and intelligent operations enable to combine teacher-student evaluation and student-student evaluation, online evaluation and offline evaluation, formative evaluation and summative evaluation together, making the evaluation more comprehensive and objective. Through the tracking, recording and assessing of the intelligent teaching evaluation system, the corresponding intelligent analysis results of the academic situation can be formed in time. Teachers can make formative evaluations of students' learning situations, pay attention to individual differences, and teach students according to their aptitude. Students can receive learning situation information and personalized feedback. All of these can allow teachers and students to locate problems in translation teaching timely, help teachers adjust teaching plans and methods, and help students modify learning behaviors and attitudes to achieve better teaching goals.

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