Research on CAT into MTI Teaching in GDUFS

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Abstract. The rapid advancement of computer and Internet technology and the increasingly frequent international cooperation and exchange have led to the increasing demand for translation. And the rapid change of translation means and tools, the transformation of translation process and operation mode from the traditional manual workshop make translation more modernized, informationized and commercialized. This paper analyzes the necessity and feasibility of computer-assisted translation teaching and explores the advantages and shortcomings of the computer-assisted translation teaching mode by analyzing the questionnaire survey of computer-assisted translation teaching in the Faculty of Western Languages and Cultures of Guangdong University of Foreign Studies.

Keywords: Computer-aided translation, GDUFS, professional master's degree

1 Introduction

Changes in the field of translation have given rise to a revolution in translation technology, and various computer-assisted translation tools have sprung up, bringing about great progress in translation productivity. The new market drives new development, and the new era calls for new translators. In order to better meet the needs of the translation market, improve students' translation practice level and cultivate broad-caliber and compound translation talents with both academic knowledge and professional skills, Computer aided translation (CAT) has gradually entered the curriculum plan of master of translation majors (MTI) in various universities.

In the process of translation, there are a lot of repeated or similar sentences and fragments. Manual translation of even the simplest sentences requires writing once. CAT technology has automatic memory and search mechanism, which can automatically store the content translated by users. When a user translates a sentence, the system automatically searches for the sentence that the user has translated. If the current sentence

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has been translated by the user, the previous translation results will be automatically given; For similar sentences, translation references and suggestions will also be given.[1]

CAT is a software with self-learning function. It will learn new words, grammar and sentence patterns as users use it, saving users more time. Cat is also equipped with an enhanced tool cam (computer aided match), which can convert the data previously translated by the user into a reusable memory. In this way, users do not need to repeat the previous work, so as to improve the translation speed and accuracy.

2 Computer aided translation

Computer-aided translation is developed from machine translation (MT). Unlike the earlier translation systems based on grammatical rules, in the early 1990s, with the advancement of computer Internet technology, assisted translation research began to combine corpus construction with statistical methods, and the more effective technology at present is translation memory (TM).[2]

Machine translation (English: machine translation, often abbreviated as MT for short) belongs to the category of computational linguistics. Its research uses computer programs to translate words from one natural language to another. Simply put, machinetranslation is the process of replacing words from one natural language with words from another. Through the training of corpus, more complex automatic translation can be achieved, including better handling of different grammatical structures, vocabulary recognition, idiomatic correspondence, etc.[3]

At present, translation machines can sometimes get understandable translation results, but if they want to get more meaningful translation results, they often need to edit them properly when inputting sentences to facilitate computer program analysis. Therefore, mt+ed is often combined with manual editing when using machine translation.

With the improvement of AI technology, a new machine translation neural network machine translation (NMT) has developed rapidly. Neural network machine translation uses artificial neural network to model a complete sentence by using a single integration model, so as to predict the possibility of a sequence of words after translation. Google's machine translation is a leader in this technology.

Computer-aided translation system, records the translation completed by translators through artificial intelligence search and comparison technology, using reference database and translation memory program. When encountering the same and repeated sentence patterns, phrases or professional terms, it can provide translation suggestions and solutions to translators to save translation time and cost, At the same time, ensure the consistency of translation quality and style.

In short, computer-aided translation is to make full use of the database function to store the translated text content. When similar or identical translated sentences are encountered in the future, the computer will automatically compare and advise the translators to use the existing translation in the database as a possible translation, allowing the translators to decide whether to accept, edit or refuse to use, rather than handing the sentences and words to the software for processing, and the software processing results

will be the final translation results. In computer-aided translation, the results of computer processing are only for the reference of translators, not the final translation results. It is ultimately up to translators to determine the most suitable translation results.[4]

Translation memory is a database that stores all translated sentences or sentence segments. Most of the current translation projects are huge in number, topic-focused, time-critical and quality-demanding, which will inevitably lead to the problems of duplicated translation materials and difficult to unify terminology styles. And translation memory uses database technology to automatically match the terms related to the original text to be translated and update the database during translation, thus greatly improving the translator's work efficiency and translation productivity, and helping to unify the translation style of the translated text. At present, the mainstream CAT tools include Trados, TransWhiz, Wordfast, Yashin CAT, etc., and the more widely used one is Trados translation software.[5]

The use of Trados translation software requires high foreign language skills of translators, that is, the quality of translation depends on the level of translators rather than computer-assisted translation software. There are two reasons for this: First, during the initialization of Trados software, the background corpus is blank, and the process of translators' translation is the process of building their own corpus; second, the translation process requires translators' decision making as the system carries out translation hints based on the corpus rather than direct translation. In a word, the translator still plays a leading role in translation.

3 Questionnaire design

The questionnaire was designed with 16 questions, among which 1 was the respondent's personal contact information, 1 was an open-ended question and answer question, and the other 14 were single-choice questions. The students who participated in this research were the students of 2019 and 2020 in the Faculty of Western Languages and Cultures of Guangdong University of Foreign Studies, and the valid questionnaires were 39, accounting for 50.65% of all the participants in the course. The main majors are: French interpreting, German interpreting, Russian interpreting and Spanish interpreting, and most of the students are studying the course of computer-assisted translation systematically for the first time.

The computer-assisted translation course was held for 2 hours per week for 16 weeks. The teachers are not the faculty teachers, but industry instructors who have teaching and practical experience. The research was conducted at the end of the course, using an online questionnaire from Questionnaire Star. The average answer time was 65 seconds, and the longest answer time was 212 seconds.

4 Analysis of the questionnaire survey

The results of this computer-assisted translation teaching questionnaire survey showed that this course was highly recognized by the students. Among them, 74.36% of the students gave the course an overall rating of A and thought that this course was very

rewarding to them. Also, the percentage of students who said they would recommend this course to others was 79.49%.

The survey shows that most students recognize the value of this course and value it. On the question of "this course has good application prospect and solid theoretical significance or practical value for future work", 76.92% of the students chose to fully agree, 23.08% chose to basically agree, and the number of those who chose to disagree was 0. For the question of "course is novel, inspiring, helpful to increase the understanding of the subject and focused", 74.36% of the students agreed completely.

In terms of course mode, the following questions were designed for teaching methods and means, teaching resources, teaching effectiveness and teachers' ability: In terms of learning prospects, 79.49% of the students fully agreed that "the course can link theory with practice and introduce the frontier and development trend of the discipline"; in terms of learning resources, they thought that the course In terms of learning resources, 87.18% of the students thought that the course "can provide relevant reference materials or learning resources for in-depth study and research after class"; in terms of teaching according to the material, the teachers "can reasonably choose teaching methods or means according to the content and characteristics of the course, and pay attention to the teaching effect", and "can control the teaching process". "In terms of teaching interaction, 64.1% of the students thought that teachers were "lively, flexible, and able to arouse students' interest in terms of teaching interaction, 64.1% of the students thought that the teachers were "lively and flexible, and could arouse students' interest and motivate them to actively participate in teaching discussions.

5 Discussions

Due to the development of economic globalization, trade exchanges among countries have continued. For example, the "the Belt and Road" has deepened exchanges among countries along the way. Different languages determine the importance of translation. At the same time, due to the large workload, these factors together form computer-aided translation. Computer aided translation plays an important role. Translators can combine the advantages of computers with human intelligence to improve the efficiency of translation. Although computers can help translators improve their translation efficiency, translators must clearly realize that computers are just a machine without thinking, so they have to check it artificially. The whole process of translation and the final result of translation depend on the translator's own ability. Therefore, translators should pay attention to strengthening their own translation level and ability. This paper analyzes the advantages and disadvantages of computer-aided translation, and puts forward some corrective measures.

This mode of cooperation between translation agencies and universities can not only alleviate the shortage of teachers in universities and the pressure of teacher training, but also the external teachers are proficient in the principles, operation process and industry requirements of computer-aided translation, and are familiar with the use of translation technology and translation tools, while the students can also undertake part of the work of translation agencies.

The survey shows that this course has effectively contributed to the students' learning philosophy being brought up to date and their attitude towards the new course model and content being more open and inclusive. One respondent said, "I used to think that computer-assisted translation was used because the translators were not good enough, but this course made me realize that translation also needs to keep up with the times and that high-level translators need to have a market-oriented professionalism, and that translators who hold on to the old ways will eventually be eliminated by the market."

6 Conclusions

The teaching environment and equipment of the computer-assisted translation course need to be improved, as one interviewee said, "The number of people in two classes together is too large, and everyone's acceptance ability is very different, and the equipment often has problems due to compatibility and other reasons, so it is difficult to grasp the progress of the course."

To address this problem, faculty strength and specific classroom facilities can be increased, equipment can be improved, and small class teaching can be implemented. In terms of teaching content, some students hope that "we can have more hands-on practice, for we have mastered the principles and basic usage of computer-aided translation software such as Trados, but in actual operation, we always make mistakes in inadvertent places, so we can't just talk about it on paper. The more hands-on work, and the more hands-on work with official materials, the more flexible and skillful we can use these tools. Another student, who had a basic knowledge and experience in Trados, said, "Based on my experience in translation in the workplace, the course is very practical, and for those who have not been exposed to Trados, they should be able to operate it after a few lessons. But because I have the foundation myself, I hope I can learn a little bit of shortcuts, plug-ins and other more advanced contents".

Therefore, how to design the course content according to students' foundation and learning ability is also a problem that needs to be considered in the implementation of this course. It is suggested that computer-aided translation (basic course) and computer-aided translation (advanced course) can be set up in the course, and students can freely choose according to their actual situation when choosing the course, so as to tailor the teaching to their needs, which may be more effective.

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