Research on the Application of Computer-aided Translation in the Field of Professional English

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Abstract. With the economic globalization and the increasingly frequent economic and cultural cooperation between China and foreign countries, higher and faster requirements have been put forward for the translation work. The traditional translation mode has been unable to meet the current translation work. Then computer-aided translation has become the mainstream of today's translation work. This paper aims to study the application and research of computer translation in the field of professional English.

Keywords: Computer-aided Translation Tools, Professional English, Research

1. Introduction to professional English translation and computer-aided translation tools

Professional English language is a kind of language which is mainly written language, supplemented by mathematical language and engineering graphics language, with the function of carrying scientific and technological ideas, with the main characteristics of expanding the meaning of vocabulary, expanding the sentence pattern, complex relationship between sentence components, accurate and economic use of words, strict grammar structure and all the ideas to be expressed in words. Professional English often has some professional terms and high repetition rate of sentence structure, which provides a huge space for the use of computer-aided translation tools. Computer-aided translation is called CAT for short[1].

At present, the computer-aided translation technology is not only used in the word processing system, but also is developing towards the direction of intelligent voice control translation communication technology, and many practical computer-aided translation software for translation applications have been derived, such as "Yaxin cat professional translation software" the first domestic auxiliary translation software company (CAT Network Edition), then "Trados" and "automatic translation system of academic computer" in Taiwan, etc., the development of computer-aided translation technology is springing up.
2. The application of computer-aided translation

As an aspect of the construction of translation discipline, computer-aided translation is becoming an important part. In order to improve the social competitiveness of foreign language students and meet the needs of the society for computer-aided translation talents, some majors have successively set up computer-aided translation courses or added computer-aided translation teaching contents into translation teaching courses\(^2\). The training of computer-aided translation talents and computer-aided translation education and teaching are stepping into the accelerated development stage. For example, Peking University has set up the Department of language engineering, among which there are the majors that offer the master's degree of computer-aided translation. Beijing University of technology, Jiangnan University and other universities have successively set up the courses of computer-aided translation (see figure 1).

![Concept map of computer aided translation](image)

**Figure 1.** Concept map of computer aided translation.

3. Common problems and solutions when using CAT tools

3.1. Difficulty in translation export

Sometimes even after the project is created, you can input the translation in the working interface of Trados. Saving the memory and term library does not mean that you have completed the translation task\(^3\). The reason is that the purpose of importing Trados is to get the final translation. If you can't get the translation, a lot of work is in vain. In the actual work, it is often impossible to export the translation, which brings great losses to the company and translators (see table 1).

| Research subject | Distribution of related topics |
|------------------|--------------------------------|
|                  |                                |
| Book review | 2% |
|-------------|----|
| Network technology | 6% |
| Software usage | 14% |
| Translation memory | 7% |
| Auxiliary translation | 71% |

Precautions and Solutions:

After editing on Trados, temporary exchange files will be generated on the hard disk of the computer. Trados software uses these temporary exchange files to export the translation. Therefore, do not run the hard disk cleaning program before translation. If the anti-virus software is installed on the computer, it is better to turn off the automatic hard disk cleaning function on the anti-virus software. In addition, after importing the original text into Trados, you must run the batch task export translation, and confirm that the translation can be exported normally before translation. When you translate a large project, you need to export and save the translation after each proportion of translation. After editing the translation, press F8 to check whether there are format errors in the translation. If there are warnings, serious warnings and other format errors, it is recommended to correct them. If the error sentence segment appears in a sentence according to the report of unable to export the translation, but there is no format error after checking, then the original text can be edited, and the sentence segment with problems in the original text can be deleted to export the translation.

3.2. Unable to retrieve information in search engine

The World Wide Web makes the collection and dissemination of information go beyond time and space, and realizes the global information sharing. Search engine is the most important and direct access for people to use the Internet. [4] If you simply input a few keywords into the search engine, sometimes you will retrieve a lot of bizarre content or no target information of the translator, which makes the work inefficient, so it is necessary to master certain retrieval skills two ways to improve retrieval efficiency:

(1) Select the right search engine

(2) Use advanced logical search terms

In addition, in order to improve the retrieval efficiency, we can add some logical retrieval words, such as and, or and not. Translators can also restrict the subject field, such as adding "Keywords:" subject: "and" image "," text "and" applet "with typical network retrieval features, such as: host name restriction (host:); link restriction (link:); super chain restriction (anchor:); web address restriction (site:) to achieve more accurate inspection cable.[5]

3.3. Original as PDF file

For the situation that the format of the exported word document is confused or PDF Text cannot be
translated, the solution is as follows:

The latest version of word2013 launched by Microsoft company has supported opening PDF files directly in word and saving PDF files as word format. Therefore, it is convenient to convert PDF files into word by installing the latest version of word program in the computer. In addition, abbyy finereader is also available on the market. [6] The best PDF to word software can also be OCR recognized into word format. It can support recognition of more than 100 languages, which is very useful for professional translators.

4. Conclusion

This paper focuses on the common problems and solutions of computer-aided translation tools, hoping to be helpful for the further maturity, improvement, practice and application of computer-aided translation technology in teaching and research.

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Design and Implementation of Parallel Corpus Based on VC + + Compilation Information

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