

Research on Computer-Aided Translation

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Abstract

With the increasingly close communication and cooperation in today's society, translation, as a bridge for information and cultural transmission between two countries and even many countries, has attracted widespread public attention. At the same time, people also put forward higher requirements for the quality and efficiency of translation. In order to satisfy people's desire to share international information and opportunities, computer-aided translation is playing an increasingly important role. But people can not help questioning that, compared with the traditional human translation, how significant is the progress of computer-aided translation? What are its advantages and disadvantages? What is the future of computer-aided translation? And how much of a role does the terminology database play in translating our reality? That's what this paper is about.

Keywords: Computer-aided translation; advantages and disadvantages; future; term data.

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I. The overview of computer-aided translation

Many people mistake computer-aided translation for machine translation, but there is a big difference. Computer-aided translation (CAI), originated from machine translation, is a rapidly developing translation technology after the digitization of translation materials. Machine translation, also known as automatic translation, is the process of using computers to convert a source language into a target language. Unlike previous machine translation software, computer-aided translation does not rely on automatic machine translation, but completes the whole translation process with the participation of human beings. The working principle of the computer-aided translation software is: TM (translation memory) +MT (machine translation) +HT (manual translation/proofreading).

II. Advantages and Disadvantages of Computer Aided Translation

2.1 Advantages of computer aided translation

The main advantage of CAT is that, it can make the translation activities also has great impact on translators in doing other translation activities. Advantages are the following aspects:

2.1.1 Effectively improve the efficiency of translation

This is mainly due to the core of the technology, translation memory technology. Generally speaking, translation memory technology means that when the translator is doing the translation work, the memory bank will automatically store the input translation in the background in order to establish a language database. In this way, when the same or similar phrases appear again in the later translation process, the system can automatically search for the same or similar contents already stored in the translation memory database, so as to provide the translator with reference, so that he can avoid repeated translation work and only focus on the translation of the new content. And the computer aided translation software has achieved a major breakthrough from single translation to multi-person simultaneous translation.

2.1.2 Ensure the consistency of the translation

It has the ability of helping the interpreter match the project and the sentence structure of the target language with the project and the sentence structure of the source language very well. When many people work together to complete a translation task, the final translation is likely to be affected by individual factors, which results in the language of the translation disunified. Even the names of the protagonists may be

different. The computer aided translation software solves this problem well. It uses the terminology database to ensure the consistency of the translated language, thus guaranteeing the quality of the translated work.

2.1.3 Reduce translation costs

The memory bank and term bank of computer-aided translation software can not only improve translation efficiency, but also save time cost, so that translators and their companies can create more profits in a certain period of time.

2.2 The deficiency of computer aided translation

The disadvantages are the following aspects:

2.2.1 The applicable style is not comprehensive.

Computer-aided translation software is more suitable for non-literary translation, such as business, political, legal and other works. It is not suitable for translating literary works, because most literary works have various sentence patterns, rich rhetoric, and close connections throughout, which are difficult for computers to translate.

2.2.2 The quality of the translation is not high.

The computer-aided translation software takes the sentence as the translation unit, which causes the lack of connection between contexts and makes the translation rigid and unable to withstand scrutiny. The provided reference can not be used directly. It needs to be modified by the interpreter, and some of them may even be discarded, which is virtually a waste of the interpreter's time and energy.

2.2.3 The effective use of memory and terminology databases requires long-term accumulation

The construction of memory bank and terminology bank is a long-term accumulation process. At the beginning of use, they are all a blank sheet. Translators need to build memory bank and terminology bank from scratch. Therefore, in the initial stage, computer-aided translation software can hardly provide much help to the translator.

Translation is a complex language activity in the brain that need an interpreter has the fairly good cognitive ability, the ability of the semantic interpretation on the original material and the ability of translating the source language into the target language creatively and coherently.

III. The development prospect of computer translation software

Although the computer aided translation software has its shortcomings, we can never deny the convenience and efficiency it brings to us. The function of computer-aided translation software is to assist human translation, but not to completely replace human translation. So it is completely understandable that it has shortcomings. In the context of global integration,

the rapid development of information technology will definitely promote the development of computer-aided translation towards a more professional, more intelligent and more convenient direction. Therefore, we have every reason to believe that computer-aided translation will play an increasingly important role in promoting global communication and cooperation, and the future of computer-aided translation will be brighter and brighter.

IV. The role of terminology database in translation

Term base is a collection of computerized terms. A term base for translation is generally a bilingual or multilingual term base. The scope of non-literary text translation is very wide, relating to manufacturing industry, financial sector, energy resources, chemical engineering, law and medicine. It is always very boring in MT, but the term bases of CAT can get lots of terms with a quick searching speed in the course of MT. For example, Google Translator's Toolkitsr and SDL Trados, the two CAT tools both have their term bases.

In the terminology database, the search results of different languages can be obtained by searching the keywords. In the search results, in addition to the bilingual translation of the keyword, you can also search for the source of translation, definition, definition source, official example sentences, network reference sentences and other information.

For example, if you have to prepare for the postgraduate entrance examination of English, or you are preparing for the Catti (the translation test set up by the Ministry of Human Resources and Social Security), NAETI (the translation test set up by the Ministry of Education) and other translation tests, the United Nations Multilingual Terminology Database (UNTERM) can be used. UNTERM is an official multilingual terminology database (within the United Nations). Terms collected by UNTERM are mainly derived from daily documents of the UN General Assembly, the Security Council, the Economic and Social Council, the Trusteeship Council and other major bodies. It mainly collects terms related to various global issues, such as climate change, democracy, refugees, counter-terrorism, sustainable development goals, decolonization and so on. The terminology database is unique and authoritative, providing corresponding search services for terms in the six working languages of the United Nations (English, French, Russian, Chinese, Arabic and Spanish).

Linguee is also a good terminology database to help us translate. It is an online multilingual translation platform, currently providing English and German, French, Spanish, Chinese, Russian, Japanese, Portuguese, Italian, Dutch and other 24 languages corresponding query services. As far as the bilingual corresponding corpus is concerned, the platform hosts

hundreds of millions of translated example sentences. As for the results, Linguee gives you examples of words' parts of speech, singular and plural, and external links, as well as the words it collects in its lexicon. These examples are from related fields. The keyword being queried in the example is highlighted, and the context and translation of the keyword are also visible. Linguee is free for iPhone, iPad, and iPod Touch iOS 9.0+ and Android 4.2+ devices. It can also be used directly through the web side.

Thus it can be seen that terminology database is of great help to translation.

V. CONCLUSION

Computer aided translation is not only an applied technology, but also an art of human intelligence. Its perfection and development need not only the cooperation of scholars and experts, but also the positive feedback of translators and experiencers. The development of things always goes through the process of twists and turns, so the development of computer-aided translation software is no exception. However, with unremitting efforts from all sides, computer aided translation technology will provide a more satisfactory answer for the human translation cause in the near future.

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