Research on the Role of Computer-aided Translation from the Perspective of Language Service Industry

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Abstract. With the development of science and technology, the computer industry has also been developed. Computer-aided translation has become one of the most basic modules in language service industry. Computer-aided translation optimizes the inherent translation model. Through the website platform and large data processing, we can upload the translation content to the Internet terminal. Then, translation is done through the cloud. At the same time, in the language service industry, computer-aided translation plays a very important role in translation. This paper discusses the current situation of the development of language services and computer-assisted translation. Then this paper analyses the specific functions of computer-aided translation. Finally, this paper analyses the advantages of computer-aided translation.

Keywords: Language Service Industry, Computer-aided Translation

1. Basic concept and development of language service industry

1.1. Basic concepts of the language service industry

Language service industry is composed of multilingual teams and organizations, such as foreign language translation companies, language software development companies, foreign language teaching and training enterprises, etc. Language service industry has been officially recognized at the International Conference on Chinese Language Service, and it has been growing steadily in recent years. This also indicates that the Chinese translation industry has gradually been recognized by the world, and the language services have been extended to the international community[1]. The language service industry generally refers to the industry composed of teams and organizations engaged in various languages, such as foreign language translation companies, language software development companies, foreign language teaching and training enterprises, and so on. The language service industry has been formally recognized in the International Conference on International Language...
Services and has been gradually developed in recent years. To a certain extent, this also represents China’s uncertain translation industry, adheres to the excellent traditional culture and high-paying technology, and gradually gets the recognition of the world, and extends the language service to the international.

1.2. The current situation of language service industry in China

With China's society entering a new stage of development, the important role of language industry has gradually emerged. Compared with other industries, the development of Chinese service is relatively backward. The development of translation industry in China is not very prosperous. However, the development of computer science and technology has led to the development of language service industry. Especially after General Secretary Xi Jinping put forward Belt and Road Initiative’s important thought, the language translation service industry has also opened a new chapter[3]. At present, the development of language service industry in China focuses on the following aspects:

1.2.1. Language translation technology and products are gradually mature. At present, the translation tools used in the language service industry are no longer limited to Google translation. Many domestic enterprises have also launched new translation software systems, such as Youdao Translation, Baidu translation and so on[3]. At present, the technical development trend of translation software industry is to develop translation cloud memory and automatic translation technology to achieve higher speed and higher level of intelligent translation technology.

1.2.2. Combination of production and learning has become a new trend. In order to develop higher and professional translation talents, more and more institutions of translation have started to promote the joint training of language service enterprises and schools. In recent years, many colleges and universities in China have reached a joint training program with local translation service enterprises, so that the translation work of enterprises is more professional, and the translation professional education in colleges and universities is more practical.

1.2.3. The talent training and evaluation system is gradually improved. The national translation qualification examination has become the official professional level test of the national education department, including English, French, Japanese, German and other dozens of languages[4]. The evaluation grade and qualification examination system of translation teachers are stringent, and the important position of translation profession has been effectively improved.

1.2.4. Language service industry is more and more widely used. At the beginning of the 21st century, China's exchanges with other countries in the world were limited to political and cultural exchanges. With the continuous development and growth of China, China's international status has gradually improved. Therefore, exchanges with other countries have been gradually strengthened. Translation is no longer limited to government diplomats, but an important work involving various social industries, providing more opportunities for the language service industry.

2. The basic concept and development status of computer-aided translation

2.1. The basic concept of computer-aided translation
The computer-aided translation (CAT) is a kind of computer-aided design tool for the translation industry, which has the advantages of simplifying the translation work and assisting the translator’s high-speed and high-level completion. It has been widely used in the current translation industry. Unlike the general translation tool, the computer-aided translation does not rely solely on the computer itself but, on the premise of manual participation, works together to complete the translation task, which mainly includes the advanced search, the word processing and the electronic dictionary, etc., and the functional situation is shown in Figure 1. Compared with the simple manual translation, the computer-aided translation can improve the translation speed, guarantee the translation quality and reduce the labor cost.

![Generalized CAT Technology](image)

**Figure 1.** Functions included in computer-aided translation

### 2.2. The Development status of computer-aided Translation

With the increasing exchange of countries in trade, culture and tourism, the demand for translation is increasing. Computer aided translation is one of the most popular translation tools for translation professionals. The maturity of computer technology has greatly improved the language translation level of computer-aided translation[5]. Computer-aided translation can complete a large part of the manual translation content. However, due to the flexibility of language, mechanical translation also causes many problems. For example, the translated sentence is too hard, without manual painting, lacks the original language beauty.

### 3. The Role of Computer Aided Translation in Language Services

In the current society with a high degree of information, computer-aided translation plays an important role in the language service industry. Compared with the inherent machine translation, the dependence of computer-aided translation is lower and can be perfectly combined with manual translation. The role of computer-aided translation in language service industry is mainly manifested in the following
aspects.

3.1. Optimizing terminology management model

Computer-aided translation can intelligently mark words that appear more frequently in the process of historical translation, as well as words marked by translators as common words, and intelligently save them as terms. At the same time, the glossary is automatically generated after a certain number of terms are saved. Glossary can be used by translators at any time, avoid complex translation process, improve work efficiency, and effectively solve the problem of translation inconsistency[6]. For example, the word "software" is translated as "software" in mainland China and "software" in Taiwan. In this way, there will be differences in translation results in different areas of use, which will not only have a negative impact on academic norms, but also change the consistency of translation results. Therefore, the wide use of computer-aided translation in language service industry can effectively ensure the consistency and accuracy of translation, and improve the overall level of translation.

3.2. The function of the innovative translation memory library

Translation memory database is one of the most key tools of computer-aided translation. It is a translation memory database established in the background of software through computer-aided translation. The translation memory library automatically invokes the translation results according to the historical translation records, which simplifies the repetitive translation process. When the input content of the translator is repeated with the stored content, the system will give the translation results directly, and when the input content is similar to the historical translation unit in the repository, the system will automatically screen out the similar translation results as a reference. Translation memory function can greatly simplify translation work, reduce unnecessary work of staff, improve translation speed and quality, and save translation time.

3.3. Effectively improve the quality of translation

Computer-aided translation can improve the translation speed of interpreters by means of voice theft and access to memory bank, and other ways can also be taken to improve the quality of translation. Sometimes the quality of translation is very high, but there are mistakes in writing. As a whole, the level of translation has been lowered. Therefore, computer-aided translation can avoid this kind of low-level error very well. When WPS text is stolen, once there is an error, the system will automatically remind and underline the wrong place. These interpreters can correct in time, which not only saves proofreading time, but also improves the quality of translation, killing two birds with one stone.

3.4. Speeding up translation in an all-round way

The advantage of computer-aided translation is that under the condition of a high shortage of translation talents, the use of computer-aided translation will of course speed up the translation speed and improve the translation efficiency, especially in the aspects of professional processing, large number of data and a large number of technical documents and papers, computer-aided translation has considerable advantages, which can translate hundreds of thousands of words per hour, which saves the time to look up dictionaries and input text.
4. Conclusion

Computer-aided translation (CAT) is the future trend of the development of language services in the new era. It provides powerful technical support for the large workload of language translation services. At the same time, the relevant technical personnel in the language service industry are also aware of the limitations of computer-aided translation. In the process of computer-aided translation, the various components of the translator coordinate the relationship between human and computer-aided translation, which maintains the consistency of translation results. Translators in language services should make full use of the advantages of computer-aided translation. By improving their professional level, the staff can become a qualified translator.

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