Research on Computer-Assisted Translation in the "Internet Plus" Era

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Abstract—**In the "Internet +" era, computer-assisted translation can not only improve the efficiency of translation, but also ensure the improvement of translation quality. This paper attempts to design a computer - aided translation system based on the Internet + era by combining the functions of dictionary support, automatic translation and Internet engine search.**

Keywords-Internet +; computer-assisted translation; design

I. INTRODUCTION

When Internet technology develops rapidly, it not only forces the development of a variety of auxiliary translation tools, but also optimizes the design of computer-aided translation system, not only ensures the integration of a variety of dictionaries, automatic translation software and search engine functions in the process of translation, but also enhances the quality of system-assisted translation, so as to achieve the perfect machine translation as soon as possible and exert a positive impact.

II. "INTERNET + " ERA

Computer-assisted translation (CAT) has also successfully squeezed into the translation market in the "Internet +" era. "CAT only seems to be able to translate, but actually it works on 'fake' translation rather than translation in a real sense. Only people are really competent at the translation work." However, with the development of computer technology in "Internet +" era, the optimization of computer-aided translation system can not only give full play to the advantages of computer-aided translation, but also avoid the defects of computer-assisted translation, and bring the advantages of CAT into full play.

III. ANALYSIS OF THE REQUIREMENTS FOR THE DESIGN OF CAT SYSTEM

Translation memory is the core technology of CAT. We can make a comparison between the untranslated fragments and the existing translated fragments. Through the process of comparing the existing translation fragments of the existing system, the fragment with high matching rate can be output from the system for reference by the translator. Therefore, for the design of the actual system in the "Internet + "era, Internet dictionary tools can meet the actual translator's needs to look up words and split words. And in the "Internet + "era, the design of computer-aided translation system can also give machine translation quickly and improve the productivity of

translation software. Whether the sentence is short or long, even the entire article or the entire page can be immediately translated. Similarly, in the system design, with the help of the search engine, we can get a large number of the source language and target language information focusing on translation tasks, and have access to background knowledge search and translation of professional vocabulary. This information has a positive impact on improving the quality of computer-assisted translation and efficiently accomplishing translation tasks.

IV. DESIGN COMPUTER - AIDED TRANSLATION SYSTEM IN THE "INTERNET +" ERA

A. Overall Structural Design

In the "Internet +" era, the design and implementation of computer-aided translation system can start from three modules: dictionary tools, automatic translation and search engine. The integration of the three modules into the system design can improve the quality of computer-assisted translation.

B. Functional Design

Dictionary function: mainly including word search, word split and translation and example sentence search. The meaning of a word can often be derived from other words that are used in conjunction with it, of which the resulting translation is quick and easy and basically, the majority of words can be found. In actual machine-assisted translation, different machine dictionaries will make different translations for the same sentence.

Reasonable use of online dictionary segmentation translation function is possible to a certain extent, reduce the intensity of translation and improve the speed and quality of translation. When a word has more meaning and usage, which is difficult to make a decision, we can query its use in different sentences through the support of some auxiliary tools with functions of word search and sentence search, so as to obtain the translation of the reference answer.

Automatic translation function: mainly including the use of automatic translation of direct access to translation, access to "effective translation of information" and the advanced use of automatic translation. In order to make the automatic translation be able to "understand" the human language better, it is advisable to make necessary adjustments or modifications

without changing the original meaning. Pretranslation does not have to be done to any sentence, but it does help to improve the translation, especially for that rules-oriented automatic translation software. The correct result given by the machine translation is to be retained; the result given by the machine translation which is basically correct but contains a small error is to be adjusted.

Search engine function: mainly including background knowledge search, professional vocabulary translation and the network translation method of professional vocabulary. "Internet +" era greatly improves the efficiency of the acceptance of knowledge. The translation of "YX, YXKS, YXKK series of high-efficiency high-voltage three-phase asynchronous motor use and maintenance manual" involves a lot of three-phase asynchronous motor terms and a large number of proper nouns with high usage frequency. The accuracy of the translation results directly affects the quality of the translation; search engines can be used to improve translation accuracy.

C. Assisted Translation Model in the "Internet +" Era

In the "Internet +" era, translation model of the computer-aided translation system can focus on translation user's needs in practice, through the system's human-computer interface, so as to output results according to the relevant functions of assisted translation to assist users to practice translation.

V. APPLICATION BENEFIT AND DEVELOPMENT TENDENCY OF CAT SYSTEM

In the "Internet +" era, the design of CAT system can help to meet the requirements of translation practice and improve the teaching ability of translation practice in specific translation practice. In the "Internet +" era, the use and design of CAT system, not only can improve the operability by 18. 0%, but also ensure the increase of translation practice quality in the "Internet +" era by 20%, so as to effectively promote the exchanges of translation and culture among different languages and give full play to the application benefits of design.

In addition, as a tool for the development of human society, the goal of computer-aided translation technology is to continuously improve the level of automation, and gradually transform the computer into the main translation project, to achieve intelligent computer-aided translation, save manpower and improve human efficiency. The author believes that the development can be called Smart CAT. The concept for the smart development of CAT can be divided into the following three aspects:

First of all, to improve the combination with the translation theory. Theory is the basis of practice, computer-assisted translation technology and translation theory should be closely integrated. The combination of Computer-assisted translation and translation theory can choose selective operation, namely to establish a translation theory according to the classification of terminology, and make users to select the appropriate translation theory according to the source text before translation. The translation of literary works such as poetry can choose Xu Yuanchong's "three beauties" theory. Translation of non-literary works can choose Eugene Nida's dynamic

functional equivalence theory, or choose literal translation and free translation, assimilation and alienation according to the situation and customer needs. To be simple, translation theory is the general standard for classification, and the branch under is classified according to the specific translation theory. At the same time, because the translation theory is developing dynamically and constantly improving, it should be directly attached to some of the translation methods as classification items. Then set the translation summary of various words, phrases, chapters under various classification items. Finally, identify the system through a specific program in translation practice and make accurate choice of the translation results. This will ensure the accuracy of translation in theory, so as to improve the quality of translation.

Second, expand the source of the termbase. To achieve the accuracy of translation, we can also start from expanding the source of the term base. Term base is people's automatic collection and summary of terms in translation practice, which determines that the size a person's term base depends on its translation workload and translation time. However, in today's society, full-time translators tend to turn to part-time translators, so it is difficult for a single translator to form a systematic, comprehensive term base. Thus, the existence of termbase can not simply rely on the translator and the expansion of the term base from the point to the surface is a wise move. Based on the protection and respect for individual labor outcomes, the realization of this change requires the help of a compensatory mechanism. It may be understood that a termbase smart user identification system may be added to the computer-assisted translation software. The termbase may be freely importable, but may only be exported in a particular form and a particular program. When the first translator and the computer-aided translation software development company reach an agreement, the first translator will share the term base he organized with the computer-aided translation software development company for consideration. Then the computer-assisted translation software development company shares the termbase with the second translator who is required by the term for consideration, but the term base can not be directly shared by the second translator to other translators except the first translator. In this way, the computer-aided translation software development company serves as a shared intermediary to assume the role of this termbase collection. In a sense, the computer-aided translation software development company is all translators' term base, which provides resources to smart computer-assisted translation.

Finally, simplify the operating procedures. One of the requirements of intelligent is the simple operation. Simple operation is not only the embodiment of a high level of intelligence, but also the key to the wide promotion of the technology. For example, the simplification of computer typing software. The initial typing software requires users to master Wubi input method, and then to master pinyin input method. But now, we have long been able input with fuzzy handwriting on desktop. The improvement of the typing software has greatly expanded range of the computer user's age. Because the gender of the translator is mainly composed of women, and considering the influence of family, interest and other factors, some of the current computer-aided translation software

operating procedures for many translators need to be simplified. Simplify the operating procedures of the software and carry out a reasonable division of the task of translation, so as to promote the sound development of the cause of translation.

VI. CONCLUSION

In summary, in the "Internet +" era, the design of computer-aided translation system can not only ensure that the translators automatically work on language translation with the help of computer-assisted translation system, but also enhance the translation quality and efficiency, promote the performance of computer-aided translation, and give full play to the application value with the help of search engine function in the "Internet +" age.

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