

A Study on the Machine Translation of Chinese-English Legislation--Taking Google Translator as an Example

Jiaye Lv

Law School, China Jiliang University, Jiangan District, Hangzhou, China

Keywords: legal language, machine translation, Google translation.

Abstract: With the further advance of globalization, the communication between countries is becoming more and more frequent, which poses a higher challenge to the quality, quantity and efficiency of translation. Machine translation thusly came into being. Although it became one of the popular research directions, the quality of Machine Translation (hereafter MT) is still far from people's expectations. This paper is a case study of Google translation in C-E legal translation. The main purpose of this study is to determine whether it is possible to help the translator to improve the efficiency and accuracy of legal translation. The study takes the Contract Law of P.R. China as example to testify Google translator.

1. Introduction

With the pace of China's opening up, especially with China's accession to the World Trade Organization, the translations of Chinese laws and regulations have become an important part of China's foreign legal exchanges and foreign trade activities, so the task of translation of laws and regulations is arduous. In accordance with the commitments of the terms of Transparency, which is made for the accession to the WTO, Chinese Government should translate the relevant laws, regulations and measures into one or more official languages of the WTO and, as quickly as possible, notifying WTO member states about these legal texts within 90 days before or during the implementation. So the time is constraint and the range is wide, as it involving a large number of legislations. In recent years, the number of laws and regulations formulated by our country has increased and the nature of the categories has been increasing. Plus the problems of vast area, difficult translation management and coordination, the demand for more translators has dramatically increased. Due to uneven level of quality of different translators, unified specification is needed. Although the translation of MT is not really satisfactory, it has methods to correct those errors in a short time. If we can find the common problems of machine translation, and edit it for post-editing, it can also reach an excellent translation and greatly reduce the translation time and improve the efficiency.

2. Previous Studies on Machine Translation

In the field of machine translation, the research is mainly focused on the aspect of arithmetic

calculation, and realized machine translation by different algorithms. The other aspect of research is on the theoretical part, which is the history of machine translation development and working principles.

Foreign countries have long history of studying machine translation. John Hutchins builds a lot in this area. He has published the “*Machine Translation and Machine-aided Translation*” (1978)[1], and “*Recent Developments in Translation: A Review of the Last Five Years*” (1988)[2]. However, he also proposed that the phrase “machine translation” is not appropriate. We must distinguish between the three concepts of machine translation. First one is “machine translation”, which means all translations are done by the machine, but the results must be artificially revised. The second is “computer aids for translators”. That is translation activities are carried out manually, and machine translation is only used as an auxiliary tool for people to translate. The last one is “translation systems for the ‘occasional’ non-translator user.” “Translation of the machine” gives a lot of misunderstandings that people may have too much expectation, because the word “translation” will give people the illusion that the machine can do like what People do, like the translation operation.

There are many literatures on machine translation in China, too. For example, in Liu Xingguang's *Review of Chinese Machine Translation: Problems and Countermeasures* (2015)[3], the author gives a general introduction to the research achieves and brief academic results of machine translation before the beginning of the 21st century. The book suggested that: the machine can only help translation, but cannot be independent translation. As simple types of machine translation cannot meet people's needs, it is resulting in computer-aided translation. In the *Computer-aided Translation: A Coursebook* (2011) [4] of Qian Duoxiu, it reviews the development of machine translation in China and the West, and introduces that in Mainland China, Taiwan, Hong Kong and other Chinese areas. It illustrates the working principle of machine translation: rules-based, statistical-based, case-based and multi-engine machine translation. He pointed out that computer-aided technology has both broad and narrow senses.

In *A Concise Course in Machine Translation*(2009)[5], Li Zhengshuan pointed out that according to the French scholar Boitet's classification, MT can be divided into the following four types: ① For The Watcher, MT-W, the purpose is to provide rough translation; ② For The Revisor, MT-R, it is in order to obtain some information; ③ For The Translator, MT-T, the purpose is to help human translators to translate, such as the provision of online dictionaries, synonyms dictionary, etc.; ④ For The Author, MT-A, the purpose is to work together through the man-machine, the output is more satisfactory translation. At the same time he made a detailed introduction to the different translation models of machine translation.

For the wrong types of translation of the machine translation, Luo Jiemei in the *machine translation's errors analysis* (2012)[6] has summed up. The author summarizes the typical error forms that the machine presents in the translation of vocabulary, syntax and symbols, and narrows the scope of formalization of language.

3. Translation Process Description

3.1 Research Design

Firstly, original Chinese texts will be fed into the Google machine translation engine and a group of candidate TL texts is generated. Then, taking the reference texts of Westlaw China website as the standard reference TL texts, the author uses Word's Compare function to figure out the differences between two versions. Finally, analyze those differences and then come out the conclusion.

3.2 Samples

Both the Chinese version and the reference version of Contract Law are coming from Westlaw China. Westlaw China is a bilingual database of Chinese laws and regulations, established by Thomson Reuters Business, which is based on the technology and experience of the world's leading Westlaw legal information platform. It is aiming to provide intelligent legal information retrieval for Chinese legal practitioners both in China and the English world.

The professional lawyers and professors who are many years engaged in legal work composed of its editorial team. They not only sort out and sum up the Chinese mainland laws, regulations and precedents, but also provide customers with highly integrated legal information value-added services.

These samples from Westlaw may not be the best version of translation, but they are well reviewed and appropriate for legal workers.

4. Case Analysis

The language of Contract Law has its own personality and characteristics. It is accurate and formal, and has its own set of words and professional language. In order to achieve concise and correct translation, when we translate legal documents, we should not only pay attention to the characteristics of the source language (Chinese) legal language, more importantly, the study of target language (English) legal terms and the characteristics of words.

4.1 Textual Level

Because the main purpose of legislation is to order rules and restrict behavior, it will rather be like literary works that express feelings and cause reverie. Therefore, the legal texts often use the official style, which is to use written style more than oral style. It requires the use of written formal language to show its dignity and authority. And the official vocabulary used in English is as follows: “in accordance with”, “unless”, “otherwise”, “provided that”, “be deemed to”, “in case”, “be liable for”, “in respect of”, etc. That is to say, when translated into English terms, if the translation does not contain these legal professional vocabularies, it will not show the authority of the law; and it can only be counted as ordinary translation, but not be called as legal provisions.

Example 1:

“第六条 当事人行使权利、履行义务应当遵循诚实信用原则。”

Google version: “Article 6 The parties shall exercise their rights and fulfill their obligations in accordance with the principle of good faith.”

We can clearly see the differences between two versions from the amended text above: both of them choose almost the same words, but use different organizations of the sentences. For non-native speakers, two types of structures are readable, but it will be a little different for native speakers. For English speakers, they are used to give the center words at first, and then unfold its description, while Chinese will put modifying words in front. That is the different words' order for different languages. So here, Google does not reset the word order and translate word by word, while Reference version made the text more adoptable for English.

Example 2:

“第九条 当事人依法可以委托代理人订立合同。”

Google version: “The parties may entrust the agent to enter into a contract according to law.”

We can see that in Reference version, it uses the phrase “in accordance with”, while “according to” exist in Google version. As listed before, “in accordance with” is formal form and appropriate in English. And there are always slightly different in singular or plural forms for translation. Because

Chinese characters seldom distinguish from singular form or plural form, so it is hard to translate and for which is better is needed to be judged by translators.

4.2 Lexical Level

4.2.1 On Ancient Vocabulary

In legal English, ancient English vocabulary appeared in large numbers, such as some formal adverbs are composed to “here” or “where” as prefix and another word. These vocabularies still maintain their original meaning after a long historical period. The use of these words, on the one hand, increased the solemnity of legal English; on the other hand, can avoid duplication, so that the text is more accurate and brief. So when the Chinese terms were translated into English, it must accurately use these words in order to meet the demand of Legal documents.

Example 3:

“第十一条 书面形式是指合同书、信件和数据电文(包括电报、电传、传真、电子数据交换和电子邮件)等可以有形地表现所载内容的形式。”

Google version: “Article 11 Written form refers to the form in which the contract, letter and data message (including telegraph, telex, facsimile, electronic data interchange and e-mail) can be tangibly shaped.”

It is surprised that two versions’ word counts have a huge disparity. Reference version uses “herein” to refer to “written form”, however, Google simply uses “refers to” and omit much information. For this text, Google version has to be amended a lot, as the words “be tangibly shaped” do not made clear sense.

4.2.2 On Legal Terminology

There are a series of special terms in the legal languages, which do not be linked to the common corresponding concepts. Compared with other words, the legal language can reflect a certain legal subjects. Although these words are derived from everyday English, they have become specific in legal English because they have been used in legal documents for a long time by legal persons.

4.3 Sentence Level

4.3.1 “Shall” in Legal English

In the legal documents such as the Contract Law, it is necessary to pay attention to the translating of the TL (English) when the words “应该” and “必须” are commonly used in the Chinese language. English is usually used to express special meaning, but not with the general meaning of “must” or “should”; sometimes you can use “will”, but the strength is not as strong as “shall”.

4.3.2 On Long legal English Sentences

In the formal legal texts, in order to specify a particular item, the central word is often limited. Because of the legal conditions set up a lot of conditions, so the majority of legal English are long sentences, few phrases, and the grammatical structures are often complex. A sentence often appears in a number of parallel components, or the emergence of multiple clauses. And the sentence structure is rigorous and orderly, the language specification is accurate. How to fix every part of clause in English order is a big challenge for translators.

Example 4:

“第三十九条 采用格式条款订立合同的，提供格式条款的一方应当遵循公平原则确定当事

人之间的权利和义务，并采取合理的方式提请对方注意免除或者限制其责任的条款，按照对方的要求，对该条款予以说明。”

Google version: “Article 39 A party that provides a format clause by means of a format clause shall, in accordance with the principle of fairness, determine the rights and obligations between the parties and take reasonable means to draw the attention of the other party to the exemption or limitation of its liability, , The description of the clause.”

We can learn that Google Translation has much trouble on long legal English sentences' translation, and it may have the same situation at other long sentences. It omits translating many information and just translate from literal meaning. It is even impossible to catch brief meaning from Google's translation, which it can do on other aspects.

4.4 Limitation of This Project

This paper may come up with some findings and results in machine translation, yet, meanwhile, it is not free from limitation, which the author is fully aware of and hopes it will be made up in future studies.

Firstly, this study only combines the relevant legal English theory, and evaluates two translation texts from personal perspective, and there are no authoritative evaluation criteria or evaluation system to do the evaluation, as well as the limited ability of the author, so the analysis of these texts is lack in depth accuracy.

Secondly, as the thesis is only a limited case study of Chinese to English translation in the Google MT engine. Whether others machine translation software can do a better job is unknown. The same situation happens to Westlaw China's reference text. Although it is from Westlaw China website, which is said to be authority, but the text is not the most perfectly translate one. For example, throughout the Contract Law translation text, there is no "provided that", this iconic legal language phrase. Although the meaning is in place, it is not entirely in line with the habits of European and American legal texts. So even these two texts were compared, and for some words they use the same vocabulary, it cannot say that the word is the best choice. So the applicability of the results may be questionable in some extent.

From the number of texts, it does not fully cover all legal translation issues. For example, the contract law does not include some procedural terms, and the special terms in the procedure is also a lot.

Furthermore, the study merely probes into Chinese-English translation, leaving English-Chinese machine translation untouched. Therefore, the study might be providing only part of the picture of achievements of machine translation. However, although the study and result of this thesis is not perfect, it is also competent to serve as a tentative study to come up with some inspirations for theoretical and practical researchers.

5. Conclusion

The Google Translator is the NMT model of MT, being so-called the fourth generation of translator in today's language service market. It is not phrase-based translation model but sentence-based. From Google we can see that as an auxiliary tool, machine translation or computer-aided translation has a bright future, both for machine-friendly translation software (MAHT -Machine Aided Human Translation) and translation software (HAMT-Human Aided Machine Translation). Computer-assisted translation, a researching field combined with translation, computer science and linguistics interdisciplinary disciplines, has gained much attention in MT field, and translation field. Machine translation research much better depends on the study of computer science and translation

rather than the either subject alone. Further studies may better concentrate on both Chinese-English and English-Chinese translation fields, which may enrich not only the practice of CAT, but also the market of Language Service.

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