Original Research   **Open Access**

Five Kinds of Translation Platform Comparison Studies

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Abstract

There are many online translation platforms available in China. Through the traffic information published by the Chinese website rankings, this paper selects five online translation platforms featured in this study as a comparative analysis of Google, Baidu, Youdao, Kingsoft and Bing. Google, Baidu and Bing Translation platforms use their powerful search engine features to integrate corpus resources and provide corresponding sources of information. Kingsoft and Youdao Translation platforms are popular universal online dictionaries. This article selects a technical text, compares translations through the five translation platforms, and combines the interface features, functional characteristics and user feedback of the five major translation platforms.

Keywords: Interface; Operation; Translation quality.

1. Introduction

In recent years, people have paid more and more attention to computer translation software, and articles that compare different translation platforms have emerged one after another. As far as the five translation platforms discussed in this paper are concerned, the research on Google Translate has been the most studied. Baidu and Youdao have the second largest translation research, Kingsoft has less, and Bing has had very little research. This research reflects the users' preferences of choosing translation platforms. Bing translation platform focuses on the search engine, and rarely on translation. Liu (2013) «Manual assessment of Baidu's online translation software's translation quality» is based on two major aspects of translation: fluency and translation loyalty (Chu, 2010).

The Baidu translation platform was evaluated using virtual grammar sentences. Liu (2013) believes that Baidu has a correctness of between 60% and 70%. Wang and Xie (2016), Comparative analysis of online translation software is based on computer translation methods, using computer translation tools based on different methods, Systran, Google Translate, and SDI. Trados, for example, compares its strengths and weaknesses and provides users with advice on using computer translation tools. Huang Yaqiong's Comparative Analysis of English-Chinese Translation of Online Translation Software uses the two largest online translation software: Baidu Translation and Youdao Translation as the subjects of research and comparison, through comparative analysis of vocabulary, sentences, and passages of different texts. The author believes that Youdao translation is better than Baidu in translation of vocabulary and sentences, while Baidu translation is more suitable for paragraph translation. Zhao (2015) Contrastive Analysis of the Problems of the Vernacular Translation and Lingus Translators analyzes and compares the problems in the translation of the same work through two software. It is considered that Lingus translators are superior to the proper translation in paragraph translation. Because it includes commercial dictionaries, the lexicon is updated in time to keep up with modern lexicon. Ren (2003) Application Skills of Kingsoft PowerWord in the Translation of Scientific and Technological English introduce the application skills of Kingsoft PowerWord in English translation from the aspects of screen word search and dictionary query, so as to make translation more convenient, direct, and quick interface comparison. First, these five interface translation tools are roughly similar: on the left is the automatic detection of the source language and on the right is the translation result. However, there are also some minor differences. For example, Google, Bing, and Baidu's translations are all lists of two languages that are available for selection. In Kingsoft PowerWord, the word is only listed in English, Japanese, Korean, and French, Portuguese and Spanish languages are translated into Chinese. Of course, automatic detection of language is a common feature of the five translation software. Secondly, on the interface, Google and Bing do not provide human translation. They are machine translations, and the other three have human translation options. In addition, Google and Baidu Translation, after displaying the results, can click the left mouse button on the results, there will be several translation results for reference, choice, and Bing can correspond in Chinese and English words, but there is no similar functionality. At this point, Google and Baidu translate very well (Huang, 2016; Nurbekova *et al.*, 2018).

2. Methods

During the research, we used comparative and qualitative methods to analyze advantages and disadvantages of the translation platforms from English to Chinese languages. In the present research we followed the steps below: we identified five translation platforms. We uploaded English text to these five platforms and got the translated Chinese

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text. We conducted a component analysis of the data studied to identify what lexical, grammatical, syntactical advantages and disadvantages have each translation platform at the translation result. In addition, our research interest has been predominantly qualitative: during the English translation we have examined our data from syntactical, stylistic, grammatical points of view, and from advantages of technological devices of translated platforms, such as web interpretation and example sentences, language pair, voice reading, wording, the overall interface (Antúnez *et al.*, 2014; Yan, 2012).

3. Results and Discussion

An article Pressure was chosen as the comparative example for translation. For translation we used the following platforms: Baidu, Google Translate, Bing, Kingsoft PowerWord, and Youdao. The results are the following:

Example 1: The term fluid is used to designate both liquids and gases. A fluid is a substance which has definite mass and volume, at constant temperature and pressure, but has no example to definite shape. Baidu: The term fluid is used to designate liquids and gases. Certain temperatures and pressures, but not a certain shape. Bing: The term fluid is used to designate liquids and gases. A fluid is a substance that has a definite mass and volume at a constant temperature and pressure, but has no definite shape. In the end, there is no way to provide voice reading for Youdao and Kingsoft PowerWord, Google, Baidu and Bing Translation. In addition, Baidu's translation can also automatically create historical records, can find the latest translated content, and provide a better user experience. The specific performance comparisons are as follows, for reference:

Kingsoft: The term fluid is used to specify liquids and gases, fluid is a substance, it has a certain quality and volume, under a certain temperature and pressure, but there is no certain shape. Youdao: The term fluid is used to designate liquids and gases. Fluid is a substance that has a definite mass and volume at a constant temperature and pressure but no fixed shape. Google: The term fluid is used to designate liquids and gases. Fluids are substances that have a defined mass and volume at a constant temperature and pressure, but do not have a defined shape. The first sentence is relatively short, and the translation of each platform is basically the same, but it shows obvious traces of the machine. Here «designate» cannot be literally designated, but should be combined with the context of the entire sentence to determine the meaning of the word, translators pay attention to the transboundary, where designed should be understood as presentation, this sentence is translated into: Fluid this the term is commonly used to refer to the second sentence of liquids and gases. Only Google Translates the word order of the second sentence in the five languages, which is in accordance with the normal Chinese order. The other translation platform is to follow the word order of the original English language. This sentence is the definition of the fluid, and the fluid is explained concretely by the subsequent attributive clause. Therefore, the attributive clause and the main clause cannot be separated when translating, but it should be used as a pre-attribute to form a complete sentence (Glushkova, 2017).

Translation: Fluid is a substance that has a defined mass and volume at a constant temperature and pressure but does not have a definitive shape. Example 2: Generally liquids are thought of as being non-compressible, that is their volume does not change with a change in pressure but, tests have shown differently. For example, water applied to a great pressure of 0.69 MPa per square centimeter has a 10 percent reduction in volume. But for practical purposes we will consider liquids as being non-compressible, since we will be talking in terms of much lower pressures than 4. 48 MPa. Baidu: In general, liquids are considered incompressible, this is their volume does not change Changes in pressure, but tests show different. For example, the amount of water under a huge pressure of 0.69 MPa per square centimeter is reduced by 10%, but in reality we would think that the liquid is incompressible because we would speak at a very low pressure of 4.48 MPa (Sun, 2014).

Bing: Generally, liquids are considered to be uncompressed, that is, their volume will not change with pressure changes, and however, tests have shown that in different ways. For example, water suffers a lot of pressure, and the volume of 0.69 MPa per square centimeter has been reduced by 10%, but for practical purposes, we will consider it as non-compressed because we will talk about the lower pressure than the 4.48 MPa liquid. Kingsoft: In general, liquids are considered incompressible, this is their volume does not change the pressure changes! However, the tests show different. For example, the amount of water under huge pressure is reduced by 10% per square centimeter of 0.69 MPa but in reality we would think that the liquid is incompressible because we would speak at a very low pressure of 4.48 MPa. In a word, they are generally considered as incompressible liquids. That is, their changes in volume and pressure have not changed. However, tests have shown that, for example, the water is under a huge pressure and the volume of 0.69 MPa per square centimeter is reduced by 10%. In the third sentence, Baidu and Kingsoft still translated literally. The other three all adjusted the word order to a certain extent. Youdao's and Google's translations are basically correct. The sentence is correctly paraphrased as: But in practical applications we will treat the liquid as incompressible because the pressure we are discussing will be much lower than 4.48 MPa.

4. Summary

Although the five major translation platforms have their own strengths and weaknesses when translating different sentences, we can roughly rank their as the following:

Baidu=Kingsoft <Bing< Weidao< Google

Baidu and Kingsoft's translation is exactly the same; it may be because of the same mechanism, so they two are ranked equally. In the translation, these two translation platforms basically do not adjust the word order and translate directly into English. Therefore, the correctness of translation depends on whether the source and the word order of the translation are in agreement. If a logically complex sentence is encountered, translation will be incorrect. But

these platforms also have their own bright spots, such as adjustment of punctuation. Bing platform will adjust the word order in translation, but the level of adjustment is also very unstable, and most of the time the word order is baffling. In addition, the Bing platform has a great number of flaws in the selection of word meanings, and it is even less similar to Baidu and Kingsoft platforms` translation. The Weidao platform is similar to the Bing platform. It will also adjust the word order during translation, but because there is no substitution for human thinking, the level of adjustment is also very unstable, and many times people will not understand it. However, there are also some flashes of light. When translating paragraphs, it will use contextual pronouns instead of original nouns according to the context.

Google Translate platform is the king of translation platforms. Google, which uses a neural network translation system, can be called a miracle in word order adjustment. It can always adjust the complex long sentence structure of English into the language order that Chinese people are accustomed to. Therefore, the results of the computer translation are basically understandable. Many times the results turned out to have been basically correct, but it is not perfect, especially in terms of logical connections (Nurhayati, 2018).

5. Conclusions

To sum up the research's results, we can conclude that in most cases interpreters do not know advantages and disadvantages of each translation platform; using comparative and qualitative methods we analyzed all data and finally found out that the most suitable translation we have got from Google Translate platform. Chinese language structurally and grammatically specific, has its own difficulties, lexica-grammatical peculiarities, therefore, depending on the specifics of the translation, knowing advantages and disadvantages of platforms, user can find out which of the platforms will be most suitable for present translations.

Acknowledgements

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