

Translation Characteristics of Computing Science Professional English

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Abstract

As the rapidly development of computer technology, new concepts, new terms and new materials continue to be introduced from abroad. The phenomenon of the direct use of English terminology is more and more common. With the increasing popularity of Internet applications, the Internet has a vast English information. The menu, prompts and error feedback information produced in the process of computer operation are commonly showed in English interface. If we cannot quickly understand its meaning, it will seriously affect the work or surf on the internet. So, the proper understanding of computing science professional English is very important. Translation is a language activity. The translation of computing science professional English involves English, Chinese two languages and computer-related knowledge. It faithfully re-shows the ideological content, feelings, style, etc expressed in a language in another language. The translation of computing science professional English is the organic whole of the translation of the vocabulary, sentences, paragraphs and the articles. This paper introduces the characteristics of vocabulary and grammar of computing science professional English, and discusses the translation methods and features of computing science professional English.

Keywords

Computing Science Professional English; Translation; Vocabulary.

1. Introduction

When we translate the technical articles, firstly, we must have a comprehensive understanding of the characteristics of computing science professional English. Technology English has the following characteristics. From the vocabulary point of view, the biggest feature of science and technology is the extensive use of technology vocabulary [1]. Specifically, the first is the specialization of commonly used vocabulary. Many words express a meaning in public English, but they have a special meaning in professional English. Second, the same term represents different concepts in different professions, even in the same professional, it also has different meanings. In addition, science and technology also use the traditional word formation method to enrich their vocabulary. From the lexical point of view, the prominent feature of a word is the nominalization of the word and the dynamic of the action verb. At the time of translation, it is necessary to change the lexical meaning of some vocabularies according to the situation and change the grammatical effect of some sentence components. From the tense point of view, the science and technology English usually uses the present indefinite tense so that the expression has "no time" [2]. From the voice point of view, the most prominent feature of science and technology is the use of passive voice, and the high frequency of use is that any other style cannot match. In addition, the extensive use of non-predicate verbs is also an undeniable fact. In short, computing science professional English stresses on the logical coherence in the narrative, and

clearness, smooth and accurateness in the expression. In addition, the translators are required to have the necessary computer knowledge, because only when they have the necessary computer expertise can they select the appropriate professional vocabulary, idioms in line with the reader's expression of meaning.

2. Vocabulary and grammar features of computing science professional English

Like other professional English, computer English also has its own vocabulary and grammar features.

2.1 Vocabulary of computing science professional English

Computing science professional English vocabulary mainly has the following characteristics.

- (1) Technical vocabulary. The meaning of such words is narrow and single. Such as bandwidth (带宽), hexadecimal (十六进制), router(路由器), hub (集线器) and so on.
- (2) Borrowing the vocabulary of other disciplines. Computer technology borrows a large number of vocabularies from neighboring disciplines, such as electronics and radio technology, and automation. The meaning has no significant changes [3]. For example, input(输入), circuit board(电路板), automatic control(自动控制) and so on.
- (3) Converting ordinary vocabulary into professional vocabulary. Such as memory(记忆, 记忆力) →memory(存储器), mouse(老鼠) →mouse(鼠标), monitor(班长, 监控) →monitor(显示器) and so on.

Words	Original meaning	Extension of meaning	Words	Original meaning	Extension of meaning
class	班级	类	path	小路	路径
mouse	老鼠	鼠标	channel	渠道	信道
mirror	镜子	镜像	utility	实用	使用程序
unit	单元	部件	Sign on	开始广播	登录

Emerging of new words. With the development of computer science, new words continue to emerge. Most of the new words are formed by means of composition, derivation, transformation, and abbreviation. Such as plug-and-play(即插即用), object-oriented (面向对象的), file-based(基于文件的), point-to-point (点对点), paper-free(无纸化), hyper-text(超文本), teleconference(远程会议) and so on.

2.2 Grammar characteristics of computing science professional English

Computing science professional English grammar has the following characteristics.

- (1) Extensive use of the passive voice in sentences [4]. For example, "Web services architecture is designed for highly dynamic program-to program interactions. (网络服务的架构是为高度动态的程序之间的交互作用而设计的)".
- (2) Extensive use of non-predicate verbs. Non - predicate verbs include verb infinitive, gerund, current participle and past participle. For example, "Saving the page with an .asp file name extension tells the Web server how to process the script commands(以.asp为扩展名保存文件来告知网络服务器以何种方式来执行脚本命令)."
- (3) Extensive use of compound sentence. Computer English often uses substantive clauses, attributive clauses, adverbial clauses, and other noun clauses. For example, A database is similar to a data file in that it is a storage place for data.(数据库和数据文本相似, 因为它是一个存储数据的地方) [5]. If you want to load and run the tutorial samples, you must have administrator privileges on the computer running IIS. (要加载并运行教程范例, 你必须拥有在运行IIS服务的计算机上的管理员

权限)。A database contains a catalog that applications use to determine how data is organized.(数据库包含一个目录,应用程序用它来确定数据是如何编排的)。

3. Translation of sentences

3.1 Passive voice

In the computer field, the passive voice are used in most of the articles. There are three reasons for this except the habits [6]. First, it is likely to involve some of the specific people or ordinary people in the active voice. in academia, in addition to a very small number of well-known people, the majority of scholars are reluctant to be named. Second, in the passive voice, it is easy to put the main things in the subject of the sentence on the subject position so that the reader will see the center of the problem to be discussed, which can make the article clear and easy to understand. Third, the passive voice can use a little more words to express the meaning of the article clearly than the active voice. So we should change the English passive voice into Chinese active voice when we translate the passive voice, which also reflects the respect for the reader.

The stylesheet element contains a collection of template elements and can be included in the document it is to be applied to.

“it is to be applied to” is the use of passive voice, which modifies the “document”. The whole sentence can be translated as 样式单元包含一组模板元素,可以把样式单元包括在将要应用它的文档中。

3.2 Complex sentence

In the study of computing science professional English translation, long sentences, difficult sentences should be the focus. There are often long sentences in the computer professional English. Many additional elements can be added on the main sentence, such as prepositional phrases, participle short words, attributive clauses, synonyms, parenthesis and so on. These additional components are combined with the main sentence through certain grammatical rules to make sentences long and complex. But these long sentences can express the thinking content more accurately. Therefore, it is necessary to proceed from the differences between English and Chinese, to deal with the problems in the form of sentence structure, but also to try not to ignore the stylistic features of computer professional articles, to retain the tight and compact features of English long sentences in the expression of thinking and do not make the sentence loose.

3.2.1 Cut off

It means that divide the long sentence into parts according to the order of the sentence, that is, in the connection of the original sentence, the long sentence is broken into Chinese clauses or sentences.

“Separating each critical portion of motherboard into regions/ where each region operates in a same or similar frequency range / to avoid cross talk and frequency interference between each region' s operations and condition.

The sentence has an attributive clause “where each region...operations and condition”. The whole sentence has no comma, and the sentence is long. After translated into Chinese, the whole sentence is cut (like “/”) into a few clause to make the meaning clear. The sentence can be translated as: 把主板上每个关键部分分成多个区,每个区以一个相同或相近的频率进行操作,以避免在每个区的操作和环境之间产生道间串扰和频率干扰。

3.2.2 Reverse translation

The reverse translation refers to that cut off the long English sentence into a number of short sentences, and then according to the expression of Chinese language to re-arrange the sentence order [7]. The order of the sentence after translated is exactly the opposite of the original. In the computer professional English, the clauses guided by “when, before, after, not...until” are usually used. In these

complex sentences, the main part is in the former, the second part is in the last. But the main part tends to be put in the last of the sentence in Chinese. Therefore, the original word order needs to do whole change or partial change.

Without the availability of well - specified and functional user - network interface characteristics and the assurance that the network transport function can be achieved using whatever technique best meets the end user's needs, but resulting in no additional interface problems, these goals of ISDN will not be realized.

This sentence is a reverse sentence, and the main sentence is at the end. The first clause is used to modify the subject "these goals" in the main clause. The clause leads to two juxtapositions "the availability" and "the assurance" by the preposition "without". After the conjunction "but", there is another clause which is paratactic with the clause after "without". The whole sentence is a negative form. The whole sentence can be translated as: 在没有规范良好的用户网络接口特性和不能保证使用任何满足终端用户需要的技术也可实现网络传输功能的情况下, 就算不会引起别的接口问题, ISDN的这些目标也不可能实现.

3.2.3 Translation of paragraphs and articles

Paragraph is on the basis of vocabulary and sentences, and article is on the basis of the paragraph. The translation of the paragraph and the article not only requires a separate master translation of vocabulary and sentence, and requires the digest of vocabulary and statements, reflecting a sense of the wholeness [8]. The translation should be concise, concise, compact and coherent as far as possible. We can omit the wordy sentence, but sometimes, we can add some of the appropriate ingredients to clear meaning for the front and rear convergence.

Hyper - Threading technology is an innovative design from Intel that enables multi - threaded software applications to process threads in parallel within each processor resulting in increased utilization of processor execution resources. As a result, an average improvement of 40% in CPU resource utilization yields higher processing through. A form of simultaneous multi - threading technology (SMT), Hyper - Threading technology allows multiple threads of software application to be run simultaneously on one processor by duplicating the architectural state on each processor while the same processor execution resources is shared.

The whole sentence can be translated as: 超线程技术是Intel公司的创新设计, 它能让多线程软件在每个处理器上平行处理多项任务, 这样的话提高了处理器执行资源的利用率。使用这项技术, CPU的资源利用率平均提400/a, 大大增加处理的吞吐量。作为同时多线程技术中的一种, 超线程这种技术可经过复制处理器上的结构状态, 让同一个处理器上的多个线程同步运行并共享处理器的执行资源.

4. Conclusion

It can't really achieve the purpose of translation only by mechanical translation and without flexible application. The aim of learning the computing science professional English translation is to master the latest computer technology, understand the development trend of the computer, and can skillfully read the computing science professional English information, literature and books. Free translation and literal translation must be seamlessly combined to produce the best translation we need.

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