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## THE PROBLEMS OF SCIENTIFIC AND TECHNICAL TRANSLATION

## ПРОБЛЕМИ НАУКОВО-ТЕХНІЧНОГО ПЕРЕКЛАДУ

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**Abstract.** This article deals with the peculiarities of translation of technical texts. The relevance of the article lies in the need to improve the quality of translation of technical texts through the collection of information about cultural and extralinguistic factors, the need to improve the quality of translated texts, elimination of errors in translation. The purpose of this study is to review and analyze the features of the translation of technical texts, which affect the translation process and the choice of translation strategy.

**Key words:** scientific and technical text, metaphorical term, lexical element, neologism term, technical phraseology

**Introduction.**

Translation is a complex process of human mental activity.

Translation means adequate reproduction of the concept expressed by means of one language, by means of another language, reproduction of the considering the interaction of content and form.

The scientific and technical sphere is one of the vital spheres of human activity.

Due to the rapid development of technology and the spread of scientific and technical information, the importance of scientific and technical translation has grown.

The translation of scientific and technical literature differs from the translation of fiction, newspaper articles, documentary and business material, etc.

The concept of "scientific and technical literature" includes such varieties as the actual scientific and technical literature, namely, monographs, collections and articles on various problems of science and technology; educational scientific and technical literature (textbooks, reference books, etc.); popular science literature in various fields of technology; technical and accompanying documentation; technical advertising, patents, etc.

The translation of such literature causes certain difficulties.

Scientific and technical texts are characterized by a special style that distinguishes them from other types of texts.

This feature creates additional problems.

The language of scientific and technical literature differs from the spoken language or the language of fiction by certain lexical, grammatical and stylistic features.

**Results and Discussion.**

The main challenges of technical translations are consistency, accuracy, and the right tone. All these elements are essential when looking to respect industry standards and meet the public's expectations.



### *Consistency*

This includes using the correct terms throughout the text, as in technical translations, there's little-to-no room for synonyms and idioms. It's unacceptable to translate a technical term using different words in your documentation as this can cause confusion. If the right name for your product is "software," it may be wise to provide a limited list of alternative words to use, such as "program" or "management system" and their correct correspondents in the target languages.

### *Accuracy*

Accuracy means always choosing the correct term in the target language. People use words in a different way to refer to the same thing. But you shouldn't fall into this trap when handling technical documentation. Professional technical translators are aware of the correct meaning of each term and use it accordingly. That's why it's essential you give your translators the best possible insight into industry jargon and specific terminology.

The most typical lexical feature of scientific and technical literature is the abundance of special terms, terminological phrases.

Terms are words or phrases that have linguistic properties like other units of vocabulary.

The difference between a term and an ordinary word depends on its meaning.

The terms express the concepts scientifically processed and are specific only to a certain field of science and technology.

Scientific and technical terms as linguistic signs representing the concept of special, professional field of science or technology, are an essential component of scientific and technical texts and are one of the main causes of difficulties in translation due to their ambiguity, lack of translation equivalents (in the case of terms- neologisms) and national variability.

Also, significant difficulties in translation sometimes arise due to the fact that in the linguistic aspect, terms, like other words of the language, are ambiguous.

In the language of science and technology, this phenomenon is widespread due to the fact that in the terminology of various branches of science and technology is widely used so-called semantic word formation, when the existing form of the word is assigned a meaning.

In some cases, the same term has different meanings within different sciences.

Of particular difficulty for translation are cases where the same term has different meanings depending on the instrument or equipment.

The context is crucial when translating a polysemous term.

In a special text there is often an element of novelty, which is especially interesting for the reader, but associated with the use of new terms (terms- neologisms), not yet recorded in dictionaries.

It is clear that such cases can create serious problems for the translator.

The main condition for overcoming these difficulties is a detailed analysis of the described phenomenon and its transfer in terms that are already established in science.

Current scientific problems, the latest technical inventions and discoveries are covered in printed publications and, above all, in periodicals.



Besides, technical texts are characterized by the use of special technical phraseology.

It also includes cases where a commonly used word in certain phrases acquires terminological meaning.

A characteristic feature of modern scientific and technical literature is the use of abbreviations and acronyms.

Scientific and technical literature is the area of wide use of various abbreviations - both those that are included in the language and recorded in dictionaries, and author's, created only for a specific case and recorded a single text.

In some types of texts, abbreviations sometimes make up 50 percent of all word usage and 15 percent of the lexis.

From the point of view of their translation, the specified distribution of abbreviations is expedient because the latter, as a rule, have the corresponding full forms in the concrete text which is translated, and their understanding usually does not cause difficulties.

It is worth mentioning that in the process of translation official abbreviations can not be arbitrarily changed and replaced.

Among the lexical difficulties of translating a scientific and technical text is the presence of a certain group of international words, which, despite the similarity of sound in different languages, differ in each language in its semantics and stylistic nuances.

In translation theory, such words are known as "false friends".

Students identify their meanings on the basis of the external similarity of two lexical units of different languages.

It results in wrong perception of information in a foreign language, and thus distortion of the content of the translated text.

### **Conclusion.**

Let us draw the following conclusion: a translator, when translating technical texts, should not take into account the colloquial style, various abbreviations or interpretations.

Obviously, a technical text is intended for specialists in a particular field or area of knowledge, who in this case act as recipients.

When translating technical texts, the translator should:

- know at least two foreign languages;
- be erudite in terms and concepts, also in two languages;
- use various sources of information.

Translation of technical literature is considered a rather troublesome and painstaking task, which, in addition to a significant amount of work, requires professional knowledge in a particular industry. The exact meaning of the text should not be distorted, and besides, it is important to maintain the style of the original.

It should be borne in mind that the translator is required to have an adequate understanding of the topic and meaning of the translated text. The translator should most accurately convey the meaning of the terms. He may be required to adapt the translated materials in terms of language and meaning.



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***Анотація.** У даній статті розглядаються особливості перекладу технічних текстів. Актуальність статті полягає в необхідності підвищити якість перекладу технічних текстів через збір інформації про культурні та екстралінгвістичних факторах, необхідності підвищення якості перекладних текстів, усунення помилок в перекладі. Мета даного дослідження розглянути і розібрати особливості перекладу технічних текстів, які впливають на процес перекладу і вибір перекладацької стратегії.*

***Ключові слова:** науково-технічний текст, метафоричний термін, лексичний елемент, термін-неологізм, технічна фразеологія).*

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