PROBLEMS OF TERMINOLOGY STANDARDIZATION

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Abstract: In linguistics, the relations in which a word, a term can express a phenomenon or process due to its semantic and structural features, relations in which a term, due to the universality of the name, is a two-sided entity, a word can perform a nominative or defining function were analyzed.

Keywords: Linguistics, term, terminology, linguistics, dynamics, terminology, verbal terms, nouns, word, lexeme.

The regulation of terminology in the field of information technology is one of the most pressing issues in modern science and technology. New concepts and technologies emerge daily in this field, which necessitates the introduction of new terms and the revision of existing ones. The accuracy and consistency of terminology not only ensure effective communication among industry specialists but also serve to explain technologies correctly to the general public. Amid the rapid development of the information technology sector, the harmonization of terminology across different languages and cultures is of great importance. This article examines the issue of regulating the terms used in the field of information technology. It also reflects on the problems encountered in standardizing terms, defining new concepts and their terminological definitions, and potential solutions. To understand the relevance of this topic, it is necessary to analyze the significance of the terminology regulation process, its role in research and education, and its practical impact. The terms used in information technology are a vital tool for both specialists and users in this field. As technology advances, new terms and concepts are introduced, which requires the development of clear and understandable terminology. Furthermore, the regulation of terms helps in the quick and effective adoption of new achievements in the field. The process of regulating terms ensures their accuracy, consistency, and clarity.

Today, due to the rapid development of science and technology, new concepts and terms are constantly emerging. It is important that the terms used in every scientific field are clear, understandable, and unified. The process of regulating terminology and bringing it into a unified form is called the standardization of terminology. The standardization of terminology plays an important role in the exchange of scientific information, the translation process, and in improving the efficiency of scientific research.

At the same time, various problems arise in the process of terminology standardization. These problems are related to language development, the influence of international terms, translation issues, and differences between various scientific schools.

The Concept of Terminology Standardization

Terminology standardization is the process of organizing the terms used in a particular field of science or activity and determining their unified form and meaning. As a result of

standardization, the uniformity of terms is ensured and their incorrect or different interpretations are prevented.

Terminology standardization performs the following tasks:

- determining the unified form of terms.
- ensuring that terms are clear and understandable.
- facilitating scientific communication.
- ensuring accuracy in the translation process.

Main Problems of Terminology Standardization:

1. Multiple Variants of Terms

Often, several terms are used to express a single concept. This leads to confusion in scientific texts. For example, the same concept may be expressed by different terms in different sources.

2. The Influx of International Terms

With the development of science and technology, many terms enter from other languages. The issue of adapting them to the national language or using them in their original form creates problems in terminology.

3. Problems Related to Translation.

Many scientific terms are interpreted differently during the translation process. As a result, several translation variants of one term appear. This negatively affects the stability of the terminological system.

4. Interdisciplinary Differences.

Some terms may be used with different meanings in different fields of science. For example, a term may have one meaning in economics and another meaning in engineering or medicine.

5. Problems in Creating New Terms.

As new scientific concepts emerge, there is a need to create new terms. However, in this process it is not always easy to ensure that the term is short, precise, and consistent with the rules of the language.

Ways of Standardizing Terminology.

The following measures are important for solving the problems of terminology standardization:

- creating terminological dictionaries.
- approving terms by scientific organizations.
- creating unified terminological databases for different fields of science.
- using a single variant of terms in the translation process.
- In addition, the activities of special commissions and scientific centers dealing with terminology are also of great importance.

Proper implementation of this process is crucial for:

Research work: Clear and consistent terms must be used when writing scientific research and technical documents. - The educational process: It provides an opportunity to develop students' knowledge and understanding by offering them clear and comprehensible definitions.

Several challenges exist in the creation and management of terminological databases, which are currently being discussed in the fields of modern linguistics and technology. The first challenge is to increase the accuracy of automatic term extraction and recognition processes.

To address this, current research focuses on deep learning and the application of neural network technologies. The second challenge is the difficulty of finding terminological equivalents across multiple languages. Because different languages have distinct conceptual systems and cultural contexts, a term in one language may not have a direct equivalent in another. This is particularly problematic for culture-specific concepts. For example, translating the names of certain national dishes, traditions, or institutions into other languages can be difficult. The solution to this problem is to enhance terminologists' knowledge of multiculturalism and cognitive linguistics, as well as to apply the principle of conceptual equivalence. In some cases, the term is borrowed, while in others, a descriptive translation is used. The third challenge is the difficulty of updating and maintaining terminological databases. New concepts and terms are emerging rapidly, especially in technology, medicine, and other fast-developing fields. Constantly updating a terminological database requires significant resources (time, money, and specialists). Collaborative terminology management models are proposed as a solution to this problem, where multiple users participate in enriching the database, and their contributions are reviewed and approved by moderators. Additionally, by using machine learning methods, it is possible to semi-automate the processes of automatically identifying new terms and adding them to the terminological database. The fourth challenge is the quality and consistency of definitions. Terminological definitions should be clear, concise, and consistent. However, in practice, the definitions in many terminological databases are not stylistically and structurally uniform because they are written by different authors. Some definitions are very long and encyclopedic, while others are too brief. The solution to this problem is to develop clear guidelines for writing definitions and to familiarize all terminologists with them. It would also be beneficial to develop tools for the automatic verification and analysis of definitions.

The fifth problem is the usability of terminological databases for users and the quality of their search functionality. Many terminological databases have complex interfaces, making it difficult for users to quickly find the information they need. Modern users expect terminological databases to have simple and intuitive interfaces, fast search capabilities, and the ability to function on mobile devices. As a solution to this problem, it is recommended to apply user experience design principles and provide full-text search and advanced search capabilities.

Terminology is a science that studies the characteristics and laws of the formation, development, and functioning of terminology in various fields of knowledge. Terminology is the collection of terms used in a particular field of science, technology, or profession. This branch of linguistics today reflects the set of concepts related to science, technology, and professional activities. Based on this definition, it can be concluded that terminology represents an organized and systematic formation.

Nowadays, different directions and aspects of terminology are distinguished. For example, S. Grinev divides terminology into the following aspects:

- **General** – studies the general features and processes in specialized vocabulary.
- **Semasiological** – studies the semantics (meanings) of terms.
- **Historical** – studies the history of terminologies and deals with giving recommendations for their systematization.
- **Cognitive** – studies the role of terms in scientific knowledge and thinking.

Additionally, the rapid development of science and technology, which brings about new terms daily, places a significant burden on translators. When translating terms related to new technologies, innovative devices, or scientific discoveries, their equivalents can be poorly formed or nonexistent in the target language. This requires the translator to possess not only excellent linguistic knowledge but also specialized domain expertise. Therefore, translating such texts is not limited to simple linguistic features; it also demands technical literacy and terminological competence. Furthermore, in technical materials, it is crucial that every word conveys precise information, as these details are often critical to the overall meaning. For instance, an incorrect translation, even of a single term, can lead to security breaches or technological errors in industrial settings. Consequently, ensuring terminological consistency in technical translation involves more than just finding a lexical equivalent; it requires fully conveying the scientific and practical essence of a concept.

Regarding the linguistic features of technical terms, they are more precise and concise than general language, and many terms are monosemantic, meaning one term expresses only a single concept. For example, English terms like torque ("aylanish momenti"), voltage , and bandwidth each refer to a specific physical or technological process. When translating such terms, it is crucial for the translator to select the correct, primary equivalent.

Factors that can disrupt terminological consistency, requiring a translator to establish a single term, include: - Neologisms and new technologies: With the rapid development of science and technology, new terms appear quickly (e.g., blockchain, cloud computing). Their Uzbek equivalents may not yet be established. - Varying applications of international standards: Some terms accepted in one country may differ from those in another.

Ensuring terminological equivalence in the translation of technical texts is a critical process encompassing linguistic tasks with both scientific and practical dimensions. This is because each technical term refers to a specific concept related to production processes, materials, technological procedures, and safety equipment. A single incorrect or imprecise translation can disrupt the operation of a terminal system, lead to major safety breaches in industry, and even result in life-threatening situations. Therefore, maintaining terminological accuracy and consistency must be regarded as a constant and fundamental task at every stage of technical translation

In conclusion, ensuring terminological consistency in the translation of technical texts is a key factor in safeguarding the continuous advancement of scientific and technological progress, as well as material and production safety. To translate terms accurately and consistently, it is necessary to strengthen one's technical knowledge of scientific and engineering tools; this means fully and consistently preserving the scientific accuracy and domain-specific meaning of these terms directly in the target language.

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