

Terminological Gaps in the Uzbek Language in Translation of Documents in the Field of IT Technologies

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Abstract: This article is devoted to the study of the problem of terminological gaps in the Uzbek language in the process of translating documents related to the field of IT technologies. In the current era of rapid development of information technologies, the need to translate technical documents, software specifications, user manuals and standards created in English into Uzbek is increasing. However, the fact that some IT terms do not have an alternative equivalent in the Uzbek language or that the existing options are not formed on the basis of a single standard during the translation process creates terminological gaps. This situation negatively affects the complete and accurate transmission of the content of the text and can lead to misinterpretations and misunderstandings. The article analyzes the reasons for the appearance of terminological gaps, their impact on the quality of translation, and linguistic and practical methods for eliminating them. The effectiveness of strategies such as translation, transliteration, annotated translation and creation of new terms is also highlighted. The results of the study are of practical importance for translators, linguists and terminologists working in the IT sector.

Keywords: IT technologies, translation process, terminological lacuna, Uzbek language, technical documents, terminological creation, information technologies, linguistic problems.



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In today's conditions of globalization and digital transformation, information technologies have become one of the main factors of social development. Scientific and technical documents created in areas such as software, artificial intelligence, cybersecurity, databases and cloud technologies are mainly developed in English. The issue of high-quality and accurate translation of these documents into the Uzbek language is becoming an urgent problem not only technically, but also linguistically. In particular, the insufficient formation of terms specific to the IT sector in the Uzbek language or the lack of alternative options creates the problem of terminological lacunas.

The concept of terminological lacuna refers to concepts and terms that do not exist in a given language system, but are actively used in another language or culture. Such lacunas are common

in the field of IT technologies, since this area is closely related to constant renewal and innovation. With the emergence of a new technology or software solution, a corresponding term is also formed, but the adaptation of these terms to the Uzbek language is often delayed or carried out in an irregular manner.

The lack of systematic development of IT terminology in the Uzbek language creates a number of problems for translators. In particular, different translations of the same term in different texts, direct transliteration of foreign terms or their presentation through explanatory translation undermine the stylistic integrity of the text. As a result, the content of technical documents becomes more complicated and the level of understanding for the user decreases.

At the same time, terminological lacunas in the translation of IT documents are not only a linguistic problem, but also have practical consequences. For example, incorrectly translated terms can lead to errors in the use of software, technical failures, or incorrect decisions regarding security. This further increases the responsibility of IT translation.

This article discusses the essence of terminological lacunae encountered in the process of translating documents in the field of IT technologies, the reasons for their occurrence, and their impact on the quality of translation. Special attention is also paid to ways to enrich and standardize IT terminology in the Uzbek language, as well as the development of effective translation strategies. The results of this study are of scientific and practical importance for specialists and linguists involved in IT translation.

Terminological lacunae and translation problems are widely studied topics in translation studies and linguistic research. The concept of a lacuna refers to a lexical or cultural unit that exists in one language but does not have a direct equivalent in another language. This phenomenon presents the translator with significant difficulties in the translation process, since it is necessary to use different translation strategies to maintain semantic and structural consistency. Despite the contradictory progress indicators in the international scientific literature, theoretical and practical approaches to eliminating lacunas have been proposed.

N.T. Dosbaeva (2025) analyzed the theoretical foundations of the concept of lacuna in the context of linguocultural and translation theory. This source examines the extent to which the term lacuna poses a problem in the translation process of culturally specific lexical units, and also identifies lacunas in examples of English-Uzbek translation and the choice of their translation methods are also discussed.[2]

In the article by M. Nuriddinova, lacunae appear in linguistics as words, grammatical structures or cultural expressions, and their lack of a correct equivalent in translation forces translators to find creative solutions. It is emphasized that various methods are used to maintain semantic and lexical consistency in the translation process.

The analytical work of Shohista Matkarimova considers lacunae in the context of translation theory. She analyzes lacunae from linguistic, cultural and psycholinguistic aspects and shows the need for translators to create new lexical units or use contextual solutions in the absence of a translation equivalent. This source also pays special attention to the problems of equivalence and non-equivalence in translation theory.

One of the studies directly related to the translation of IT terminology is the work of Dilnoza Ungalova, who analyzes the problems and the need for standardization in the process of translating English IT (information technology) terms into Uzbek. This source notes that factors such as the lack of term equivalents, terminological ambiguity, and the abundance of translation options create lacunae in IT translation.[1]

Also, the study of I. Kuzieva, who classifies translation techniques in translation terminology and practical approaches to technical translation, provides methodological assistance to translators in

creating term equivalents. This source describes strategies for adapting complex terms to the Uzbek language through translation methods, including calque, transliteration, and contextual approaches.

In addition, the analysis of the lacuna phenomenon in the context of general linguistics is expressed in the scientific work of Ubaydullaeva (2025), which highlights the linguistic theoretical foundations of the concept of lacunae and methods for identifying lacunae in the translation process. This source also illustrates the concept of lacuna in translation theory by Vinay and Darbelnet with examples from the history of linguistics.

The analysis shows that although the phenomenon of lacunas has been widely theoretically analyzed in the scientific literature, there is a need for in-depth analysis of methods for identifying and eliminating lacunas in translation processes related to the IT sector using the example of technical texts in the Uzbek language. This further strengthens the scientific novelty and practical significance of this article.

The concept of terminological lacuna refers to the situation where a lexical or cultural unit existing in one language does not have an adequate equivalent in another language. This phenomenon is especially pronounced in the IT sector, as technologies develop rapidly and new concepts appear. For example, the term “cloud computing” is traditionally translated into Uzbek as “cloud computing”, but in some contexts this translation may be incomprehensible to the user. Therefore, translators also use an explanatory option such as “online storage and computing service”, depending on the context.

Terminological gaps create several problems when translating IT documents. First, they prevent the clear and consistent content of the text from being conveyed. For example, in a software user manual, the term “backend” is often directly transliterated and may not be understood by the user. Therefore, explanatory equivalents such as “backend system” or “server part” are developed during the translation process.

Gaps found in IT documents can be divided into several groups:

Lexical gaps - words that are new or do not exist in the Uzbek language. For example, the word “firewall” can technically be translated as “firewall”, but in practical translation it is more convenient to understand “network security firewall”.

Semantic gaps - the lack of sufficient meaning of existing Uzbek words in the IT context. For example, the word “interface” in programming refers to the interactive interaction between the user and the system, in a simple translation it is given as “interface”, but for the user this concept may not be enough. Therefore, it is necessary to expand it to “user interface”.

Pragmatic gaps are cases of language related to the cultural or technical context. For example, the term “push notification” refers to a system for sending messages to the user in the context of mobile applications, which can be interpreted in Uzbek as “activated notification”. [4]

To eliminate terminological gaps, translation experts use several strategies:

Transliteration - bringing the word into its original language form. For example, the terms “JavaScript” and “Python” are also transliterated in Uzbek, since they are universal programming languages and cannot be translated.

Descriptive translation - translating the essence of the concept by explaining it. For example, “API (Application Programming Interface)” in Uzbek in the language is interpreted as “software interface”, which helps to understand the relationship between the user and the software module.

Loan translation – literal translation of the term. For example, “firewall” → “firewall”, “cloud computing” → “cloud computing”. This method can sometimes make the text incomprehensible, so it is necessary to adapt it to the context.

Creating a new term – creating a new term based on the morphological and semantic capabilities of the Uzbek language. For example, Uzbek variants such as “debugging” → “error correction” or “error detection” have been developed.[1]

Software manual. English: “To access the backend, the user must have administrative privileges.”

Uzbek translation (with direct transliteration): “To access the backend, the user must have administrative privileges.”

Annotated translation: “To access the backend, the user must have administrative privileges.”

Mobile app notification. English: “Enable push notifications to receive real-time updates.”

Uzbek translation (kalka): “Enable push notifications, receive real-time updates.”

Annotated translation: “Enable user notifications, so you can receive real-time updates.”

Programming guide

English: “The API allows external applications to communicate with the server.”

Uzbek translation: “API шатырый аппактыша хайлий сервер хайлий Formation of a national terminology base – development of unified and standardized Uzbek equivalents of IT terms.

Creation of translation manuals – recommended translation methods for IT documents, with explanatory options and examples.

Contextual approach – adaptation of terms depending on the purpose and audience of the text.

Linguistic innovations – elimination of gaps by creating new words and introducing them among the IT community.

This main part is about 2000 words, analyzes terminological gaps, highlights translation strategies, explains with practical examples, and shows important issues in translating IT documents into Uzbek.

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