

## РОЗДІЛ 10 АКТУАЛЬНІ ПИТАННЯ ФІЛОЛОГІЇ

UDC 811.161.2'373.46:004 (038)

DOI <https://doi.org/10.32782/tps2663-4880/2025.41.2.51>

### INTEGRATION OF ENGLISH IT TERMINOLOGY INTO THE UKRAINIAN LANGUAGE SPACE

### ОСОБЛИВОСТІ ІНТЕГРАЦІЇ АНГЛОМОВНОЇ ІТ-ТЕРМІНОЛОГІЇ В УКРАЇНСЬКИЙ МОВНИЙ ПРОСТІР

**Kovalova K.O.,**

*orcid.org/ 0000-0002-9734-5667,*

*Lecturer of the Department of Foreign Languages,  
National University «Odesa Law Academy»*

**Lesnevskaya K.V.,**

*orcid.org/0000-0003-0903-4170,*

*Senior Lecturer of the Department of Foreign Languages,  
National University «Odesa Law Academy»*

**Stashuk T.I.,**

*orcid.org/0000-0002-3475-6530,*

*Lecturer of the Department of Foreign Languages,  
National University «Odesa Law Academy»*

**Yasnitska H.V.,**

*orcid.org/0009-0000-6373-7024,*

*Lecturer of the Department of Foreign Languages,  
National University «Odesa Law Academy»*

The article examines the features of the integration of English terminological in the field of Information Technology in the Ukrainian linguistic space. In the wake of the globalising processes, the English language has become the major source of replenishing the Ukrainian scientific and technical vocabulary, especially in the fields of computer science, programming, networking technologies, artificial intelligence, and digital communication. The purpose of this study is to identify the main paths, mechanisms, and regularities of linguistic adaptation of English IT terms in the Ukrainian language. The work has systematised the main ways of integrating borrowed lexical items: transcription, transliteration, calque, descriptive translation, conversion, and hybrid form formation. It was found that most common are borrowings without changes and calques which facilitate the accuracy and clarity of terms, as well as hybrid formations that actively function in professional and everyday IT discourse. The issues of term duplicity, semantic variability, and stylistic inconsistency caused by the rapid pace of Information Technologies updating have been revealed. As for the standardisation of IT terminology, the creation of a single electronic dictionaries and databases, which will contribute to the Ukrainian terminological space arrangement, has been underlined. The research results are of significant practical value to the creators of terminological dictionaries, the lecturers of technical disciplines, the translators and the specialists in IT field and also, open the next corpus and lexicographic studies.

**Key words:** IT terminology, borrowing, adaptation, calque, hybrid forms.

У статті розглядаються особливості інтеграції англійської термінології в галузі інформаційних технологій в українському лінгвістичному просторі. У зв'язку з процесами глобалізації англійська мова стала основним джерелом поповнення української науково-технічної лексики, особливо в галузях інформатики, програмування, мережевих технологій, штучного інтелекту та цифрових комунікацій. Метою цього дослідження є визначення основних шляхів, механізмів та закономірностей лінгвістичної адаптації англійських ІТ-термінів українською мовою. У роботі систематизовано основні способи інтеграції запозичених лексичних одиниць: транскрипція, транслітерація, калька, описовий переклад, конверсія та гібридне формотворення. Виявлено, що найпоширенішими є запозичення без змін та кальки, які сприяють точності та зрозумілості термінів, а також гібридні утворення, які активно функціонують у професійному та повсякденному ІТ-дискурсі. Виявлено проблеми дублювання термінів, семантичної мінливості та стилістичної невідповідності, спричинені швидкими темпами оновлення інформаційних технологій. Для стандартизації ІТ-термінології наголошується на необхідності створення єдиних електронних словників та баз даних, що сприятиме впорядкуванню українського термінологічного простору. Результати дослідження мають значну практичну цінність для творців термінологічних словників, викладачів технічних дисциплін, перекладачів та фахівців у галузі ІТ, а також відкривають наступні перспективи корпусних та лексикографічних досліджень.

**Ключові слова:** ІТ-термінологія, запозичення, адаптація, калькування, гібридні форми.

**Statement of the problem.** As one of the major Slavic languages, the Ukrainian language underwent substantial changes throughout its existence. Its evolution was influenced by the changes that happened culturally, politically, and socially over the course of the centuries. Moreover, the influences of such languages as the Polish, Latin have also been included in its development. Nowadays, the most influential factor to the evolution of Ukrainian is still globalisation mostly in the information technology field.

In the past, the Ukrainian language managed to assimilate foreign influences in its vocabulary by means of borrowing, calquing, and morphological adaptation. At the times of intensive cultural interaction, loanwords from different languages became the main enrichers of the Ukrainian vocabulary, especially the fields of law, science, and administration. Nevertheless, the frenetic technological change of the 21st century has considerably heightened the demand for the Ukrainian language to adopt English IT terms. Differently from the periods when the vocabulary was enriched, the IT terminological unit has to be instantly and extensively accepted in order to be able to communicate effectively in the professional sphere and to have access to international.

In the 21st century, information technology became an integral part of the modern civilization, and English became a universal means of global communication in this field. That is the main reason why most of the terminology functioning in IT is of English origin. The Ukrainian language, like most European languages, is under the constant influence of English in the process of creating, adapting and consolidating terms related to computer technologies, programming, cybersecurity, internet-communication, mobile apps, artificial intelligence, etc.

Under the conditions of digital transformation and the active development of the technological sector, the vocabulary is being renewed at a rapid pace which is caused by the arrival of new concepts, devices, and software for which the Ukrainian terminological base does not always have.

**Analysis of recent research and publications.** Analysis of existing research and publications shows that the issue of integrating English-language IT terminology into the Ukrainian language space has become one of the most prominent areas of modern linguistic and translation research. Ukrainian and English-speaking scholars who study the functioning of foreign-language borrowings in technical and professional communication mainly focus on describing the structural, semantic, and sociolinguistic processes that accompany the penetration of Anglicisms into professional discourse. Scientific works often

note that globalization and the dominance of English in the field of information technology have caused an intensive influx of terms that allow them to enter the Ukrainian language not only through specialized literature, but also through program interfaces, documentation, international standards, and professional online communities. As a result, English-language terms are rapidly integrated, often changing the stages of normative processing.

Several main trends can be outlined in the works. A significant number of works are devoted to the classification of Anglicisms and the definition of methods for their adaptation in the Ukrainian language. Thus, such integration models as transliteration-transcription are described: for example, git, server, buffer; kaleky: file system, cloud storage; translation descriptions: backup, remote access; immutability of borrowings: API, backend, framework. At the same time, the authors emphasize that the choice of strategy depends on the context: in professional contexts, internationally accepted forms dominate, while in educational and popular texts, Ukrainian equivalents are more common.

An important part of the study is the analysis of the phonetic, morphological and orthographic adaptation of information and communication Anglicisms. The works of Ukrainian linguists are characterized by a tendency to gradual normalization of spelling and declension options, but at the same time, the lack of full consistency between academic dictionaries, professional practice and real use in the media and documentation is noted. Very often, scientists mention the difficulty of developing stable rules, since a significant part of the terms functions in parallel with their English form, being part of the code, interface, or international terminology that is unlikely to be translated.

There is a need for profound analysis of linguistic adaptation processes to ensure the balance between the international unification of terms and the preservation of the language identity of the Ukrainian terminological system.

**Task statement.** The article aims to identify the main ways of integration of the English IT terminology into the Ukrainian language and to find out the linguistic, structural, and sociolinguistic factors influencing the process. To achieve the goal, the following **tasks** are set:

1. To analyse the main sources of English IT terminology;
2. To classify the ways of its adaptation;
3. To identify the problem areas of the terminological system of the Ukrainian language;
4. To outline the trends of the further development of the IT.

**Outline of the main material of the study.**

Therelevance of a study of English-language IT terminology in the contemporary Ukrainian language is largely due to the rapid development of digital technologies, the globalisation of scientific communication and the dominance of the English language as a universal tool of professional interaction. Currently, English acts as the main source of replenishment of the Ukrainian terminological system in the field of information technology (IT) which covers programming, cybersecurity, artificial intelligence, computer linguistics, Internet-communication and the branches related. In the Ukrainian linguistic space, there is an active assimilation of anglicisms, the formation of new forms and the change of semantic shades of borrowing units which causes the need for a systematic analysis of the adaptation mechanisms of foreign-language terminology.

Modern researchers emphasise that the process of integration of English terminology is a natural consequence of international cooperation in the IT-industry, where English is a lingua franca. The process of the integration of anglophone IT terminology has already started in the 1990s, when the Ukrainian scientific community was actively involved in the international projects. During that time there were first versions of translated terms *software* — *програмне забезпечення*, *hardware* — *апаратне забезпечення*, *database* — *база даних*. By the beginning of the 21st century with the development of the internet and social networks the number of borrowings had increased several times which led to the change of the structure of the Ukrainian technical vocabulary.

The appearance of new terms is a permanent phenomenon: each year there are dozens of neologisms related to software development, mobile applications, cloud services, artificial intelligence, blockchain-technologies. The Ukrainian language is very quick to respond to these changes by either borrowing terms or creating its own calqued or hybrid variants. However, this is not always a process of regulation: in scientific and journalistic texts there are simultaneously different forms - direct borrowings (site, browser, server) and translated equivalents (вебсторінка, оглядач, хост) that phenomenon of duplication and stylistic inconsistency occurs.

Linguistic borrowing has been one of the major issues in language contact studies for a long time. According to Haugen, borrowing is a process that involves the stages of adoption, adaptation, and finally, integration into the receiving language. Poplack rather points out sociolinguistic factors and suggests that borrowings arise as a result of functional and communicative needs. Thomason and

Kaufman go even further to indicate the different levels of adaptation of the borrowings whereby they separate direct loans, phonologically adapted terms, and semantic loans.

The use English IT terms in Ukrainian language is very present and clear in the discussion about the need to communicate globally versus the need to preserve the national language. Direct borrowings make communication very fast but they could weaken the linguistic identity of Ukrainian, if they are used too much. Adapted borrowings and calques keep the balance, thus both users' comprehension and Ukrainian language norms stay intact.

Borrowing patterns mirror bigger sociocultural trends such as globalisation, professional mobility, and exposure to the international IT discourse. Ukrainian IT specialists show practical behavior when dealing with English borrowings, as they mainly focus on saving time and being clear rather than following language purism.

The integration of English IT terminologies is carried out through a few major paths: transcription, calque, descriptive translation, conversion, and the formation of hybrid forms. The most common way is still transcription or transliteration, which ensures the preservation of the international form of the term and its recognisability among specialists: *сервер*, *браузер*, *чат*, *контент*, *хостинг*. These words get quickly integrated into the language system thus acquiring grammatical features of the Ukrainian language (*сервери*, *браузери*, *чатами*). At the same time, they keep the English-language graphic base which is evidence of incomplete adaptation to the phonetic and morphological norms of the Ukrainian.

English is not only a source of new terms but also word-formation models for the language of IT specialists. So, derivatives of the English roots are very active in the language of IT specialists, for example, *андейтити*, *залогінитися*, *запостити*, *лайкати*, *беккапити*. Such hybrid formations combine an English base with Ukrainian word-formation affixes and reflect a natural tendency to linguistic economy. There is a sign of high lexical development dynamics but very often they remain outside the official language.

Phonetic and morphological changes are very important when two languages interact, because they give the chance foreign words to be Ukrainianised in terms of grammar and pronunciation. Hybrids, for example, are just one of the imaginative linguistic ways to designate new technologies and digital services.

Frequency analysis reveals that informal registers are rich in direct borrowings whereas formal parlance

mainly uses adapted borrowings and calques. Hybrid forms, though not widely spread, are highly productive in the denomination of new digital services and products. Semantic shifts frequently occur as words may become more general or more specialised in Ukrainian.

Descriptive translation is used when the English term does not have a short or established equivalent in Ukrainian. So, *firewall* is explained as *a system that protects a computer network from unauthorised access*, *cookie* is *a file with user data that is stored in a browser*, *blockchain* is *a technology for storing information in the form of encrypted blocks*. This method ensures accuracy and completeness; however, it is quite bulky in practical use.

A characteristic conversion for English also influences Ukrainian IT terminology: nouns become verbs (*лог* – *логувати*, *пост* – *постити*, *чат* – *чатитися*). This contributes to the flexibility of speech in the professional environment but raises questions about the normativity of such forms.

The use of English IT terms depends on the influence of the professional domain, age, and exposure to the English language. The direct borrowings are more often used by younger IT specialists and students who have a good command of the English language, whereas older professionals are more likely to choose adapted forms. Informal communication is more inclined towards choosing the most efficient and brief ways of expression, thus there is a higher number of anglicisms, whereas formal writing is in line with the standards of the Ukrainian.

The sociolinguistic aspect of adaptation deserves the special attention. The IT-community in Ukraine has its own professional jargon, which functions as a part of the corporate culture. Words like *баг*, *фікс*, *коміт*, *реліз*, *девелопер*, *фронтенд*, *бекенд* have become the part of the living communication and are often not translated even in formal contexts. Besides, they perform not only the nominative function but also the identificational one — they mark the speaker's belonging to the professional environment.

At the same time, there is a problem of duplicity and terminological inconsistency. For example, in technical texts, the following pairs are used side by side: *застосунок* / *аплікація*, *сайт* / *вебсайт*, *вебсторінка* / *сторінка сайту*. Duplications particularly emphasise the ongoing conflict between universal understandability at a global level and maintaining the use of the national language. On the one hand, they signify the practical requirements of communication in the domain of IT, while on the other hand, they represent the cultural and linguistic aspects of the Ukrainian.

However, such inconsistency still makes standardisation difficult, especially in the field of translation of documentation and educational materials. Ukrainian scientists emphasise the need to create a national terminological database and agree on translation.

The creation of IT lexicon corpora and automated dictionaries has been an important direction in modern linguistics. Such resources make it possible to trace the dynamics of the use of terms, to determine the frequency, and the contextual features of the functioning of the terms. In Ukraine, the first attempts are already being made to create digital databases for the unification of technical vocabulary, but this process still requires systematic state support.

Eventually, the development of Ukrainian IT terminology will depend on several factors: the intensity of international cooperation, the level of technical education in Ukrainian, the state's language policy, and the activity of professional communities. It is important to ensure the balance between the preservation of national identity and the integration into the global scientific space. Only under the condition of conscious language policy, it is possible to achieve a harmonious combination of natural language development and international unification.

**Conclusions.** To sum up, it can be said that the integration of English IT terminology into the Ukrainian language space is a dynamic and ongoing process influenced by globalisation, professional practice, and sociolinguistic factors. Direct borrowings dominate informal communication, whereas formal texts favor adapted forms and calques. Hybrid forms contribute to lexical innovation, reflecting the flexibility of the Ukrainian language.

This study highlights the complex interplay between international IT discourse and national linguistic identity. It provides valuable insights for language policy, educational practice, and technical communication, emphasising the need to balance global comprehensibility with linguistic preservation. The Ukrainian language has enough potential to assimilate English IT terms, thus retaining its own lexical identity. The main task of contemporary linguistics is not to limit borrowings, but to regulate and systematise them. Subsequent studies should focus on the deeper understanding of semantic models of borrowings, the creation of corpora of IT texts, and the drafting of guidelines for translators and teachers of technical.

One of the key discussions around the phenomenon of English IT term integration into Ukrainian is the exploration of various perspectives. From a linguistic point of view, it is a pretty complex matter,

involving different nature of changes in adaptation of borrowed material. These changes might be phonetic, orthographic, or morphological modifications of already existing Ukrainian words. Besides, hybrid forms and the creation of calque are also the methodological ways of involvement of English IT terms into the Ukrainian language. From a sociolinguistic standpoint, the process is significantly influenced by factors such as one's age, professional background, English proficiency, exposure to the international discourse, and communication environment. Direct borrowings as a rule are more common in such informal communicative milieus as online forums, social media, and developer chats, where efficiency and the global standardisation of IT terminology are of primary concern. In contrast, formal contexts like university textbooks, technical manuals, and offi-

cial documentation prefer adapted borrowings and calques to ensure conformity with the linguistic norms of Ukrainian.

The usage of English IT terminology also poses wide-ranging issues for the Ukrainian linguistic identity and language policy. As a matter of fact, the introduction of English terms facilitates the participation of Ukrainian IT specialists in the worldwide technological discourse. However, the excessive usage of foreign terms may lead to issues related to the purity of language, its standardisation, and even the maintenance of Ukrainian lexical integrity. The situation is not made easier by the rapid pace of new technologies and developments in the digital sphere that constantly bring in a large number of new words, leaving it up to translators or adaptors to decide whether to translate, adapt or .

#### BIBLIOGRAPHY:

1. Абрамович Г.В. Англійсько-український словник комп'ютерних термінів: словник Вінниця: ВНТУ, 2016. 118 с.
2. Залевська О. В. Адаптація англомовних запозичень у терміносистемі інформаційних технологій української літературної мови / *Інноватика в освіті, науці та бізнесі: виклики та можливості* : матеріали V Всеукраїнської конференції здобувачів вищої освіти і молодих учених, м. Київ, 15 листопада 2024 року. Т. 1 . Київ : КНУТД, 2024. С. 68-73.
3. Карабан В.І. Переклад англійської наукової і технічної літератури. Граматичні труднощі, лексичні, термінологічні та жанрово-стилістичні проблеми. Вінниця : Нова книга, 2004. 576 с.
4. Тарабукіна А. С. Загальні принципи англо-українського перекладу комп'ютерної термінології. Проблеми розвитку гуманітарних наук в контексті глобальних трансформацій сучасного комунікаційного простору : зб. матеріалів Всеукр. наук.-практ. конф., 27 жовтня 2023 р. / ред. кол.: Р. П. Мигущенко, А. В. Кіпенський, А. А. Бадан ; Нац. техн. ун-т "Харків. політехн. ін-т". Харків : НТУ "ХПІ", 2023. С. 181-186.
5. Шилінська І. Способи термінотворення галузі «Інформаційні технології». Південний архів (філологічні науки). 2019. № 78. С. 150–156.
6. Cambridge Dictionary URL: <https://dictionary.cambridge.org/>
7. Smienova L. V., Kushlyk O. P. Term-forming capabilities of the Ukrainian equivalents of original computer verb terms. WISDOM. Vol. 21 (1). 2022. P. 154–168