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TRANSLATION STRATEGIES IN THE PROCESS OF CONVEYING NEOLOGISMS, ABBREVIATIONS AND ACRONYMS IN ENGLISH LANGUAGE COMPUTER TEXTS

Abstract

The rapid advancement of technology gave rise to the emergence of numerous neologisms that have permeated various languages, with a particular emphasis on personal computers. This research still remains relevant as ongoing technological advancements continue to shape language usage. Translation of computer messages and the terms that make them up – abbreviations, acronyms, etc. – remains a crucial area of study. Thus, this article aims to examine the usage of acronyms and abbreviations in English language computer texts, identify patterns in their frequency, and characterize the diverse categories in which they appear. Special attention is given to translating computer abbreviations. The present paper employs a comparative analysis of the structural, semantic and functional characteristics of English acronyms and abbreviations, facilitating a contrast of these lexical units and the identification of defining characteristics. The descriptive-analytical approach and continuous sampling method were also used to illustrate the research findings. The most effective approaches identified for conveying English language computer abbreviations and acronyms include direct translation of the full form of the abbreviation, finding equivalent shortenings in the target language, transcoding, transliteration, descriptive translation and loan translation. The author highlights the significance of context awareness and appropriate interpretation in light of the fact that some acronyms and abbreviations have multiple meanings, and some of which may be lexically opposed to the required one. Given the distinctive features of computer texts characterized by a specific structure and abundance of computer neologisms, particularly acronyms and abbreviations, stemming from the rapid evolution of information and communication technologies, this study contributes to a deeper understanding of the production and translation of computer acronyms and abbreviations.

Keywords: abbreviations, acronyms, translation, information and communication technology, computer neologisms, computer reduction.

Анотація

Швидкий розвиток технологій спричиняється до появи численних неологізмів. Такі лексичні одиниці поширюються та стають загальноживаними в багатьох мовах. Це особливо помітно в комп'ютерній терміносистемі. У наш час переклад комп'ютерних термінів, які складаються переважно з аббревіатур, акронімів тощо, залишається актуальною темою. Мета цієї статті – вивчити особливості використання акронімів й аббревіатур в англійськомовних комп'ютерних текстах, визначити їх типи, частоту використання й описати основні способи їх перекладу. У статті проведено порівняльний аналіз структурних, семантичних і функційних характеристик англійських акронімів й аббревіатур. Це дозволило порівняти описані лексичні одиниці та визначити, коли саме вони застосовуються в мові. Для ілюстрації результатів дослідження використано метод компаративного аналізу та суцільної вибірки. У результаті було виявлено кілька найефективніших способів перекладу англійськомовних комп'ютерних скорочень і акронімів: прямий переклад повної форми аббревіатури; пошук еквівалентних скорочень у мові перекладу; транскодування; транслітерація; описовий переклад; калькування. У статті підкреслено важливість усвідомлення контексту та відповідного тлумачення, оскільки деякі акроніми й аббревіатури мають кілька значень, деякі – протилежне значення. Відзначено, що комп'ютерні тексти мають особливу структуру; вони багаті на неологізми, зокрема акроніми й аббревіатури, що є результатом стрімкого розвитку інформаційно-комунікаційних технологій. Подальші дослідження дадуть змогу дізнатися, як змінюються підходи до їхнього перекладу з плином часу.

Ключові слова: аббревіатури, акроніми, комп'ютерні скорочення, способи перекладу.

Introduction. The dynamic process of technological development provoked the appearance of many neologisms, which spread and came into use in various languages. This is especially true of personal computers, that are used daily, and as a result, many jargonisms and professional words have appeared, which are already widely employed by PC users and continue to replenish the vocabulary of many languages.

It was estimated that, on average, about 800 neologisms appear annually in the English language, most of which are related to the field of information and communication technologies. So, in particular, Zatsnyi claims that “computer neologisms make up about 10% of the total number of all neologisms” (Зацний, 2000, с. 198). Thus, there was a need to interpret and clarify such innovations. Additionally, publication of various technical dictionaries and manuals facilitated comprehension of new lexical items and specific texts. Today, the seamless integration of personal computers and other high-tech equipment into our lives owes much to the assiduous efforts of translators.

The relevance of this research lies in the fact that the process of spreading the latest technologies continues. Even today, translation of computer texts and their constituent terms (abbreviations, acronyms, etc.) is indeed an important topic. With the intensification of society’s life, many computer neologisms are formed by shortening, which is especially noticeable in scientific and technical literature and in written communication of Internet users. Therefore, the need for their interpretation remains.

Literature review. The problem of interpretation of computer abbreviations, their origin, translation and functioning was dealt with by both domestic and foreign scholars. Notable contributions have been made by such researchers as I. Andrusyak, T. Arbekova, I. Arnold, V. Bogdanov, N. Fursova, V. Komisarova, Z. Korneva, L. Kostina, D. Mazurik, G. Miklashevskaya, M. Nikitina, Ya. Retsker, A. Samoilo, M. Sapozhnikova, M. Shanskyi, A. Smirnetskyi, A. Stetsenko, O. Zabolotnaya, Yu. Zatsnyi, O. Zemska. However, despite the comprehensive coverage of the problem, the significance of the topic persists, emphasizing the ongoing relevance of studying computer neologisms, which is determined by the fact that the lexical composition of the English language is constantly updated in connection with the intensive development of the field of application of information and communication technologies. What is more, computer abbreviations require even more careful and thorough research.

Bearing these ideas and challenges in mind, the article **aims** to analyze the use of abbreviations and acronyms in English language computer texts, study the tendencies in their occurrence and give characteristics to their groups. Special attention is paid to the methods of translating computer abbreviations. Consequently, the author intends to investigate the distinctive features of English language computer abbreviations, shortenings and acronyms, outline the principal methods employed in the formation of computer abbreviations and determine the specificities associated with the translation of abbreviations and acronyms in English language computer texts.

Research methods and methodology. The current study employs a comparative analysis of the structural, semantic and functional characteristics of English abbreviations and acronyms. This methodology provides the opportunity to compare the above-mentioned lexical units and define their specificities concerning their functioning in the language. Quantitative results of the research were ascertained by the application of a quantitative analysis approach, which allowed for the identification of specific features in rendering acronyms and abbreviations from English into Ukrainian, as well as their usage. The research findings were presented using the continuous sampling method and the descriptive-analytical method, with a specific focus on English language acronyms and abbreviations.

Theoretical background and discussion. Rapid development of information technologies and their active penetration into all spheres of life and activity in modern

society contributed to the appearance of computer neologisms in the English language. Typically, when interpreting the term “neologism”, scientists emphasize the novelty of the word. However, there is no unanimous interpretation of it among scientists, since its definition is quite conditional, because all new words are considered neologisms until society perceives them as new. Komisarov, for instance, interprets the term “neologism” as “a new word that arose in the memory of people who use it” (Комисаров, 1995, с. 253). Meanwhile Hanych (Ганич, 2002, с. 360) notes that “a neologism is a word or phrase created to denote a new concept. Each new word that appears in the language is initially a neologism, and after gaining widespread use, it enters the active vocabulary of the language and ceases to be a neologism”.

Computer neologisms are words or phrases that appeared in the language at a certain stage of its development to denote a new concept in the field of information technology, the novelty of which is perceived by language speakers.

It is worth highlighting the main types of abbreviations and acronyms emphasizing their formation and features. Thus, all computer abbreviations can be divided into several conventional groups, which denote:

- 1) proper names (*PDA, MS, EPOX, ABBYY*);
- 2) trade and industrial names (*3D Max, WORM, Micro-CD, RAM, DVD, USB*);
- 3) programming and communication using the Internet (*IDC, AFAIK, URL, LOL, PLS, IC, ASAP IDK, ATB*).

Now, let us consider abbreviations that are one of the most productive types of word formation of computer neologisms. **Abbreviation**, as a word formation method, involves shortening part of the base of a word. Abbreviations are divided into graphic and lexical. The graphic ones are used only in writing; in spoken language, they are reproduced in full. Such neologisms created employing abbreviations are not used in oral speech but can be presented on the computer screen. They are used only within computer technology and represent specific concepts. For example, *etc* – *et cetera* (тощо); *edt* – *editor* (програма – редактор); *Edlin* – *Edit lines* (строковий редактор); *err* – *error* (помилка); *EXT* – *End of Text* (кінець тексту); *ext* – *extension* (розширення). The lexical ones include various abbreviations, contractions and acronyms.

Contracted words are words that are formed by contracting syllables. Abbreviations, on the other hand, are more specific in terms of formation. In particular, Leichyk believes that abbreviations serve as the most productive means of compressing lengthy names (Лейчик, 2009, с. 138). They can take the form of abbreviated words, formed from the initial letters or from other parts of words that are part of the name or concept and are used both in oral and written language.

Leichyk further divides abbreviations into letter, sound, compound and complex (*ibid.*, с. 77), whereas Sydoruk singles out three types of abbreviations: initial, compound, mixed (Сидорук, 2015, с. 298) and Volokh classifies them as partial, initial, combined (Волох, 1996, с. 199).

Abbreviations are commonly employed in scientific and technical texts and in the process of communication on the Internet. For example, *PC* – *Personal Computer*; *CLS* – *Clear Screen*; *pine* – *Pine Is Nearly Elm* (програма); *semi* – *Semi-Colon* (крапка з комою); *Net* – *Internet*; *jock* – *jockey* (програміст, який пише програми).

A distinctive feature of abbreviations in computer texts is the reduction not only of terms, but also of frequently used phrases. For example, *ADR* – *Address* (адреса); *AEAP* – *As Early As Possible* (як можна раніше); *AFK* – *Away From Keyboard* (відійшов від комп'ютера); *ASAP* – *As Soon As Possible* (якомога раніше); *AITR* – *Adult In The Room* (дорослий в кімнаті); *ALAP* – *As Late As Possible* (чим пізніше); *ALTG* – *Act Locally, Think Globally* (дій

локально, думай глобально); *ASL* – *Age/Sex/Location* (вік / стать / місце проживання); *B&F* – *Back And Forth* (назад і вперед); *B/C* – *Because* (тому що); *BON* – *Believe It Or Not* (вір чи ні); *BRB* – *Be Right Back* (зараз повернусь); *BRT* – *Be Right There* (буду поряд); *BZ* – *Busy* (зайнятий); *BTW* – *By The Way* (до речі); *BOT* – *Back On Topic* (повертаючись до теми спілкування); *CT* – *Can't Talk* (не можу говорити); *CTA* – *Call To Action* (заклик до дії); *CTO* – *Check This Out* (перевір це); *CY* – *Calm Yourself* (заспокойся); *CYE* – *Check Your Email* (перевір пошту); *CYL* – *See You Later* (побачимося пізніше); *CYM* – *Check Your Mail* (перевір пошту); *CYO* – *See You Online* (побачимося онлайн); *CYT* – *See You Tomorrow* (побачимося завтра); *DIAFYO* – *Did I Ask For Your Opinion?* (Чи я запитував твою думку?). These examples illustrate how abbreviations efficiently condense common expressions in the realm of computer communication.

From the examples given above, it can be seen that the most frequently coded sentences fall into the following categories:

- 1) requests (*GMAB, LMK*), approximately 30%;
- 7) advice (*CTO, ALTG, MLNW, NSD, TBYB*), approximately 20%;
- 2) commands for users (*CYM, CYE, RYS*), approximately 20%;
- 3) wishes (*HAND, RIP, KISS*), approximately 15%;
- 4) obscene language (*KMA, LAB, LABATYD, RTFM, FOAD, STFU*), approximately 10%;
- 6) catchphrases (*GMTA, MLNW, OV*), approximately about 5%.

It's noteworthy that abbreviations often have not only verbal, but also visual implementations, usually achieved through the use of numbers. For instance, 2 [*'to:*], 4 [*fo:*], 8 [*'eit:*] 10Q – *Thank you*; W8AM – *Wait a minute*; G2G – *Got to go*; G2B – *Going to bed*; CUL8R – *See you later*; B4 – *Before*; B4N – *Bye for now*; B4U – *Before you*; B15 – *Back in five*; GR8 – *Great*; H8 – *Hate*; W8 – *Wait*; M8 – *Mate* (Bloom, 2000, p.6).

Users commonly employ numbers to save time. In this regard, abbreviations are divided into–sound-verbal abbreviations (*PC* – *Personal Computer*) and acronyms (*DIVOL* – *digital-to-voice translator*). Sound-verbal abbreviations are those that must be pronounced in oral speech according to the alphabetical name of the letters.

Acronyms are words formed from the initial letters or syllables of other words, pronounced as single words rather than a sequence of individual letters (Zabotnova, 2017, p. 26). These are typically created using parts of the initial terminological words (Чумак, 2006, p. 201). Examples include: *WOMBAT* – *Waste Of Money, Brain And Time*; *GAL* – *Get A Life*; *JAM* – *Just A Minute*; *TIC* – *Tongue In Cheek*; *FAQ* – *Frequently Asked Questions*; *WAN* – *Wide Area Network*; *RAMDAC* – *Random Access Memory Digital Analog Converter*; *TELEX* – *Teletypewriter Exchange*; *JEDEC* – *Joint Electron Device Engineering Council*; *MIDI* – *Music Instrument Device Interface*; *DIVOL* – *Digital-to-Voice Translator*.

Approaches in translation. Translation of computer abbreviations involves two main stages:

1. deciphering – identifying the initial English form or correlate;
2. rendering of the correlate by means of the Ukrainian language, which most accurately convey the revealed content.

The transfer of computer abbreviations (abbreviations, acronyms) in Ukrainian can be carried out in the following methods: full borrowing, transliteration/transcription, loan translation, explication and translation based on analogy (Belda-Medina, 2001, p. 65).

Full borrowing of English abbreviation in Latin letters is usually used for the transfer of nomenclature designations. For example, *DVD* – *Digital Video Disk*, in the Ukrainian language remains DVD.

Transliteration and transcription when translating computer terms are rarely used in their pure form, and transcription is more often used while preserving the elements of

transliteration (for example, *hacker* (хакер), *interface* (інтерфейс), *computer* (комп'ютер)). Examples of pure transcription include such terms as *cache* (кеш), *slash* (слеш), *BASIC* (Бейсік). Examples of transliteration are more numerous: *port* (порт), *adapter* (адаптер), *assembler* (асемблер), *cursor* (курсор), *supervisor* (супервізор).

Transliteration and transcription are extremely productive methods of translation and enrich the layers of not only standard vocabulary, but also jargon, for example, *upgrade* (апгрейд), *user* (юзер), *shareware* (шаровари – ресурс, доступний для сумісного використання). If transliteration/transcription is used mainly in the translation of individual words-terms, then the translation of terminological phrases is carried out more by loan translation and explication.

Loan translation is a method of translating a lexical unit of the source language by replacing its component parts (morphemes or words) with their lexical correspondences in the target language (Belda-Medina, 2001, p. 68). Tracing is used in the translation of such terminological phrases, for example, as *procedure* (процедура управління процесом); *peer view instances* (рівноправні екземпляри видимого елемента); *disk storage* (дискова пам'ять); *current drive* (поточний дисковод); *image recognition* (розпізнання зображення), and numerous abbreviations, for instance: *LSI – Large Scale Integral* (велика інтегральна схема). Besides, loan translation is justified when translating terminological phrases when the constituent elements of these phrases have already occupied a certain place in the terminological system of the language being translated and are accessible to specialists. These translation approaches contribute to the enrichment of both standard and jargon vocabulary, ensuring accurate communication in the rapidly evolving field of information and communication technologies.

Explication (also known as descriptive translation) is used in the case when a word combination consists of terms that have not yet entered into use in a certain field of science or technology in the language of translation and require their own interpretation. It is a lexical-grammatical transformation in which a lexical unit of the source language is replaced by a word combination that gives an explanation or definition of this unit (Belda-Medina, 2001, p. 69). Explication becomes a productive means of translating computer terms, since the rapid development of the field of information technology does not allow many terms to find their equivalents in a timely manner and take root in the translation language. Multi-component terminological sentences are effectively translated with the help of explication. Examples include: *native mode – mode of operation in the native command system*; *processor-specific code – a program tied to a specific processor*; *non-mouse program – a program that does not support working with a mouse*; *business application – program for commercial calculations*; *nucleus – the core of the operating system*.

Productivity of explication when translated into Ukrainian is also explained by the structural differences in the means of creating words and phrases. The English language, being analytical in its structure, is dominated by multi-component prepositional phrases, which is not inherent in the Ukrainian language and creates certain difficulties in the translation process. Such difficulties in the translation of multi-component phrases are often eliminated by means of loan translation with a change in the sequence of the components of the phrase, for example, *CSMA/CA (Carrier Sense Multiple Access/Collision Avoidance) – колективний доступ до контролем за носієм інформації і вилученням конфліктів*; *BIOS (Basic Input/Output System) – базова система вводу-виводу*; *DMA (Direct Memory Access) – прямиий доступ до пам'яті* (Zerkina et al., 2015, p. 140).

The advantage of loan translation over explication is that explication is multi-word, and in the case of loan translation, each element of the phrase in the source language corresponds to one element of the phrase in the language of translation, therefore, the principle of saving linguistic means is implemented. Sometimes explication works in

conjunction with loan translation as in the following examples: *MS-DOS (MicroSoft Disk Operating System)* – *дисківа операційна система фірми Microsoft*; *EISA (Extended Industry Standard Architecture)* – *розширений промисловий стандарт (шинної) архітектури*. Lexical units of both the Ukrainian and English languages continually develop new meanings to denote new concepts and objects. The given examples demonstrate that in modern English, polysyllabic computer lexical units and nominative phrases are most often subject to shortening.

Conclusions. The research identified several key methods for translating English language computer texts. They include full borrowing, transliteration, transcription, loan translation and explication.

It is important to become familiar with the text and grasp its main ideas before translating computer messages, especially those that contain acronyms and abbreviations. Mechanical memorization of terms without penetrating into their essence and lacking knowledge of the phenomena, processes and mechanisms that are discussed in the original may lead to significant translation errors. Translators must thoroughly study the relevant field of science and technology to be able to correctly use the appropriate terminological dictionaries. The translator's ultimate goal when dealing with acronyms and abbreviations in media discourse is to strike a balance between accurately conveying the intended meaning and ensuring accessibility and understanding for the target audience.

It is worth noting that computer texts often carry an element of novelty, introducing new terms not yet documented in dictionaries. While intriguing for the reader, such cases pose serious challenges for translators. Overcoming these difficulties requires a detailed analysis of the described phenomenon and its translation into terms established in the field of science.

Therefore, upon analyzing the distinctive features of computer texts, it becomes apparent that they possess a specific structure and contain numerous computer neologisms, particularly abbreviations and acronyms, resulting from the active development of information and communication technologies. As a consequence of this, creation and translation of computer acronyms and abbreviations emerge as a substantial topic requiring further investigation.

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