МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ

Київський національний лінгвістичний університет

Факультет германської філології і перекладу

Кафедра теорії і практики перекалду з

англійської мови

Представлено на кафедру_____

(дата, підпис секретаря
кафедри)

Рецензування_____

_____

(кількість балів, «до захисту» («на допрацювання»),
дата, підпис керівника курсової роботи)

Захист_____

(кількість балів, дата, підпис викладача)

Підсумкова оцінка_____

_____

(кількість балів, оцінка за 4-х бальною
системою, дата, підпис викладача

КУРСОВА РОБОТА

З ПЕРЕКЛАДУ

ОСОБЛИВОСТІ ПЕРЕКЛАДУ УКРАЇНСЬКОЮ МОВОЮ ТЕРМІНІВ
СФЕРИ ІТ У МАС-МЕДІЙНОМУ ДИСКУРСІ

Смольська Марія Юріївна
студентка групи Па 18-20

Керівник курсової роботи_____

(підпис)

Київ 2024

Ministry of Education and Science of Ukraine

Kyiv National Linguistic University

Department of English Philology and Philosophy of Language

TERM PAPER

In Translation Studies

under the title: «Specificity of translating IT terminology in Ukrainian in mass-media discourse»

Group PA 18-20
Faculty of German
Philology and Translation
Educational Programme:
English and Second Foreign Language:
Interpreting and Translation in Business
Communication
Majoring 035 Philology
Mariia SMOLSKA

Research Adviser
Lecturer
Ivanenko Kateryna Vasylivna

Kyiv 2024

CONTENTS

INTRODUCTION

The term paper is focused on the translation challenges associated with IT terminology in mass media discourse. Specifically, it delves into the linguistic characteristics of IT terminology, theoretical foundations of translating such terminology, and the specifics of analyzing texts in mass media discourse. The paper aims to identify the unique features of translating IT terminology within the context of mass media and to propose optimal translation strategies. Thus, the study of the topic of translation of IT terminology in mass media discourse is of great importance for understanding the communication processes in this area and improving the quality of translation.

Theoretical basis of the study. The study will use translation theory, linguistics and communication, as well as approaches to analysing mass media discourse texts. The main attention will be paid to theoretical concepts of terminology translation, taking into account the peculiarities of technical and mass media texts.

Relevance of the research. The rapid development of information technology and the growing role of mass media in society make the issue of translating IT terminology for a mass audience relevant. The study of this problem will help improve the quality of communication in this area.

Defining the purpose and objectives of the work. The aim of the study is to describe and analyse the peculiarities of translating IT terminology in mass media discourse, to identify optimal translation strategies and to determine their theoretical basis. The tasks include analysing theoretical approaches, studying factual material, identifying the peculiarities of mass media discourse, and determining the optimal translation methods.

The subject of the study. The subject of the study is the translation of IT terminology in mass media discourse and the peculiarities of this process from the linguistic and communicative points of view.

Object of research. The object of the study is the process of translating IT terminology in mass media discourse and its impact on the perception of technology by mass users.

Factual research material. Data for the study will be collected from various sources, including mass media texts, translations, literary sources and other sources containing IT terminology.

Research methods. To achieve the research goal, the analysis of literary sources, comparative analysis of texts, questionnaires and expert evaluation of translations will be used.

Theoretical and practical value of the study. The results of the study may be useful for translators, linguists, software engineers and media professionals involved in translation and communication in the field of information technology.

Structure of the course work. The paper consists of an introduction, a theoretical chapter, an analytical chapter, conclusions, bibliography and appendices.

CHAPTER I
TERMINOLOGY AS A LANGUAGE PHENOMENON AND TRANSLATION CHALLENGE

1.1. IT terminology and its main characteristics from the point of view of linguistics

Modern media discourse is undergoing significant changes due to the rapid development of information technology, the expansion of the World Wide Web, and world globalization in general. Telescoping and abbreviation are methods of word formation that are responsible for the formation of the largest share of neologisms. Since this linguistic phenomenon is quite new, but at the same time it shows increasing efficiency and, as a consequence, is becoming more and more popular in philology, these factors determine the relevance of the research of various mechanisms of formation of telescopic units, the study of their semantic features, and the establishment of the spheres of their functioning [6, p. 875].

The "terminological explosion" observed in recent decades is particularly evident in the realm of computer terminology, constituting a relatively recent and rapidly expanding lexical layer. Despite the widespread use of these terms, the field of information technology remains one of the less explored areas in modern linguistics. The existing scientific literature lacks comprehensive coverage of the origin of IT terms, and a dedicated study is yet to emerge. There is a notable absence of a thorough description of both native and borrowed English IT terms, with little exploration into the linguistic and extralinguistic factors influencing their incorporation into the language. Nonetheless, the specialized vocabulary of information technology plays a crucial role in shaping the communicative and pragmatic characteristics of texts within this field [24, p. 71].

These linguistic transformations often involve the application of semantic methods for nomination. In these cases, the form of lexical units remains unchanged, but there is a shift in their meanings [3]. Karaban V. emphasizes the utility of the

semantic method in meeting the growing demand for new terms. He particularly highlights a semantic approach to nomination, where a common word takes on the role of the name for a scientific or technical concept through reinterpretation and metaphorization of one or more of its meanings [12]. Examining the lexical composition of IT texts reveals that the vocabulary within contemporary English-language magazines and journals focused on the dominant theme of "IT" comprises several types of lexical units [1]:

- Functional words from common-literary language, employed with their established meanings. These include words like again, ago, almost, already, also, however, just, near, only, quite, rather, sometimes, still, then, today, might, must, and others.

- Common-literary language words utilized in IT texts, often with a specialized, narrow significance. Examples of such words include state, case, treadmill, and storage.

- Phraseological expressions, such as to see the light, have an appetite for, and industry body.

- Words from common-literary language not commonly found in scientific texts but with content suitable for scientific consideration, like cloud storage, cloud supplier, and cloud quality.

- Specialized terminology specific to the field, such as cloud computing, middleware, and cybersecurity.

This analysis underscores once again the prevalence of general scientific vocabulary in texts dedicated to information technology.

Significant transformations are occurring primarily within the lexical domain of language, particularly in computer vocabulary. The fundamental word-formation methods in this domain include affixation and acronyms, compounding, conversion, and contamination. Scientific texts and terminological dictionaries often feature terms comprised of three or more words, emphasizing precision over brevity in conveying complex concepts [6]. In the realm of computer terminology, stylistic

representation encompasses professionalism, jargon, slang, and the terms themselves. The semantic attributes of a computer term are intricately linked to its motivation. Like any lexical unit, a term—be it a single word or a phrase in a natural language—may or may not exhibit signs of language motivation [11, p.187].

Consider the lexical unit "hacker," defined as "someone who illegally breaks into a computer system to steal information or disrupt its proper functioning." Similarly, the term "piracy" is associated with "the crime of illegally copying and selling books, tapes, videos, computer programs." The estimated connotations within these units are embedded in semes such as "illegally," "steal," and "crime," reflecting societal condemnation of any unlawful actions and implying the seme "bad." As a result, these terms can be categorized within the realm of special vocabulary, including slang and professionalisms, functioning as terms but carrying a distinct stylistic "coloration." For instance, "garbage" might denote unnecessary information, while "deadly embrace" refers to a deadlock in the operation of a program. These examples showcase how certain terms, while serving as technical descriptors, also carry nuanced and value-laden meanings that contribute to their stylistic characterization. Within computer vocabulary, numerous units are closely tied to work practices and concepts, frequently featured in English-language IT journals. Examples include "to level up," signifying an elevation, "to back up," indicating the execution of reserve copying, and "to follow a link," referring to the act of navigating through a hyperlink, among others [12]. In the 20th century, the fields of science and technology, as pivotal drivers of human progress, gave rise to new international words. Terms like radio, television, program, disk, video, CD, iconoscope, radiotelescope, and radar emerged, reflecting the era's technological advancements. Notably, English itself became the "giving" language and earned the designation of the lingua franca of the 20th century.

The influx of borrowings into languages occurs due to the influence of both major linguistic and extralinguistic factors. Examining the phenomenon of a word, with its flexible relationships among components (denotation, concept, and form), reveals that a single item can be associated with multiple denotations. This

underscores the significance of the generalized nature of the word's sense, emphasizing its role in reflecting the complexities of reality [4].

Examining the prevalent lexical units in the realm of contemporary information technology leads to the conclusion that the introduction of a new denotation into the terminology layer frequently takes place when common-literary language words are employed, influenced by extralinguistic factors. A pivotal factor among the linguistic causes contributing to the reassessment and alteration of word meanings is the shift or displacement of values resulting from the transfer of a name. This process is centrally positioned in the linguistic dynamics of rethinking, emphasizing the flexible connection between the various components of a word, such as its concept and form [14, p. 39].

Terms encompass both specific words like "processing," "software," and "database," as well as national special meanings of words such as "candidate-perspective," "memory-memory device," and "beauty-advantage." When delving into terminology, it is crucial to elucidate the meaning of a term through logical definition, establishing the designated concept's place within the broader system of concepts in the respective field of science or technology. Attention should also be given to the systematic nature of newly coined terms during the learning process [5].

Phrasal verbs, commonly associated with spoken language, find extensive use within technical sublanguages. Through an analysis of their word meanings in the information technology sublanguage, it becomes evident that there exists a group of phrasal verbs representing a resilient lexical layer (such as "setup" and "bring about") alongside highly specialized terms (e.g., "log on" and "print out") [18, p. 28].

During the formation of any terminological system, a distinctive phenomenon is the terminologization of common words. In this process, there is a notable shift from a commonly understood meaning to a terminological one, achieved through metaphorical and metonymic reinterpretation [21, p. 71].

In conclusion, the language of information technology, akin to the field itself, is dynamic and continuously evolving. It consistently incorporates new terms and

terminological expressions. The presence of terms not yet cataloged in specialized dictionaries suggests that this lexical layer is inadequately explored, making its further research a promising avenue.

1.2. Theoretical foundations of translating IT terminology

Translating terminology poses a significant challenge, demanding precise and faithful reproduction. Translating terms across various subject fields requires not only a high level of professionalism but often specialized knowledge in the relevant subject area. The accuracy of scientific and technical translation hinges on the precise rendering of terms into another language [27]. A key requirement for translating English terms is the meticulous preservation of their semantic content. In the translation of IT terminology, we find that the most typical methods employed include transliteration, calque (loan translation), explication, and equivalent method.

The predominant translation method employed in this study is calque or loan translation, a technique wherein a word from one language is translated literally or word for word for use in another. The findings reveal that 84 out of 205 terms are translated using this method. Examples include "technology" translated as "технологія," "invent" as "винаходити," "pointer" as "покажчики," "complicated declarations" as "складні оголошення," and "machine-readable form" as "машинопрочитний вигляд" [24, p. 30].

Transliteration, which involves mapping from one writing system to another, word by word or ideally letter by letter, is used to a statistically insignificant extent in the translation of IT terms. This method aims to enable the reader to reconstruct the original spelling of transliterated words. In cases where there are no means of verbalization in the target language for a given word, transliteration is employed. The study reveals that 25 terms out of 205 were translated using transliteration, including examples like "hypertext" translated as "гіпертекст," "computer" as "комп'ютер," and "server" as "сервер" [1, 2].

Translation equivalence refers to the similarity between a word or expression in one language and its translation in another, stemming from overlapping ranges of reference. A translation equivalent is a corresponding word or expression in another language. In our analysis, we identified that 71 out of 205 terms are translated using this method. Examples include "mode" translated as "режим," "toggle" as "перемикач," "button" as "кнопка," "tooltip" as "підказка," and "whitespace" as "пропуск" [2].

The characteristics of explication, as a means of adequately translating non-equivalent vocabulary, have been examined. In scientific and technical texts, specialized terminology may lack direct equivalents in translation. Consequently, the primary task for the translator of technical literature is the pragmatic adaptation of the original text while preserving its form and content [27, p. 64].

It's noteworthy that during the analysis of IT term translation methods, several units were identified that were translated using different methods. For example, "personal computers" was translated as "особисті комп'ютери" (calque) and "комп'ютери" (reduction); "machine" as "машина" (calque) and "прилад" (equivalence); "compiler" as "компілятор" (calque) and "програма-компілятор" (specification); "calculator" as "калькулятор" (transliteration) and "обчислювач" (equivalence) [24, p. 30]. Thus, based on the obtained results, it can be concluded that the calque method is the most typical. Transliteration and explication methods are used less frequently, but they are applied when conveying the meaning of a term using the lexical means of the target language proves challenging.

We can categorize the metaphorical transfers based on the following groups of features: 1) by form, exemplified by "галочка / пташка – checkbox"; 2) by function, as seen in "folder – папка"; 3) by the mechanism of action, demonstrated by "space – пробіл"; 4) by the nature of the action, illustrated by "call – викликати"; and 5) by size, as indicated by "snippet – шматок коду" [2].

Upon comparing English metaphorical IT terms with their Ukrainian equivalents, we observed that, in most instances, the terms retained their metaphorical meaning in both languages. Given that the terminology of computer

science originated from the English language, Ukrainian terms, even when translated using their appropriate Ukrainian equivalents, often adopt the metaphorical sense of their English counterparts. Terms can be categorized into simple, compound, and complex structural types.

Translations from non-derivative terms to derivatives are also observed, such as "toggle" being translated to "перемикач" and "clause" to "конструкція," as well as to compound terms like "integer" translated as "ціле число." Among these, simple derivative terms are the most prevalent in our sample, constituting more than half of all terms. The most productive affixes include suffixes such as "-or" (e.g., "validator"), "-er" (e.g., "interpreter"), "-tion" (e.g., "concatenation"), "-увач" (e.g., "накопичувач"), "-ок" (e.g., "зв'язок") for nouns, "-ate" (e.g., "instantiate") for verbs, "-able / -ible" (e.g., "collapsible"), "de-" (e.g., "debug"), "en-" (e.g., "encoding"), "де-" (e.g., "декодувати") [12, 13]. In the translation process, English derivative terms are predominantly rendered as derivative terms in Ukrainian, for instance, "padding" being translated to "відступ." In a minority of cases (5%), a compound term is employed in Ukrainian, as seen in "snippet" translated as "шматок коду" and "pagination" as "посторінкова навігація/посторінковий поділ" [28].

When translating IT terms from English to Ukrainian, the structure of the term is often retained. The analysis of parts of speech in terms has revealed a predominant use of nouns, indicating a tendency toward nomination in IT terminology. The prevalence of nouns in IT terms can be attributed to their primary function of providing nominative definitions. The analysis further shows that nouns are followed by verbs, adjectives, and adverbs. Some cases of conversion are observed in English, for instance, "indent" – "відступ/відступати," and "input" – "вхідні дані/вхідний" [1].

According to V. Karaban, the ambiguity present in certain English computer terminology often requires the selection of an appropriate dictionary equivalent. Achieving this requires not only a strong command of both the source and target

languages but also a comprehensive background knowledge of the relevant field, particularly in the domain of information technology [12].

Among the lexical challenges encountered in scientific and technical translation, V.I. Karaban identifies several issues, including the multiple meanings of words (terms) and the selection of an appropriate dictionary equivalent or translation variant, nuances in the use of common words in scientific and technical texts, and the correct application of various methods of vocabulary translation. These challenges extend to determining the limits of acceptable lexical transformations, translating neologisms, dealing with abbreviations, handling "false friends" like pseudointernationalism, lexicalized plural forms of nouns, and homonymous terms, as well as addressing ethno-specific vocabulary, ethnonational variants of terms, and foreign words and terms found in English scientific and technical texts, including proper names and titles of entities such as firms, institutions, and organizations [12, pp. 12–13].

Grammatical differences also pose difficulties in translating scientific and technical texts, as the author points out variations in grammatical structures, forms, and traditions of written scientific communication between English and Ukrainian. English specialist texts, for example, utilize passive and impersonal verb forms more frequently than their Ukrainian counterparts. Participial constructions, special syntactic structures, personal pronouns in the first person singular, one-member infinitives, and nominative sentences are also employed more regularly in English [13 p. 14].

Scientific texts commonly feature term repetition, emphasizing the importance of considering and comparing all instances of an unfamiliar term or terminological combination within the text. To accurately convey the meaning of such terms absent in dictionaries, the translator must scrutinize every occurrence and then seek clarification by consulting specialized literature on the subject. Existing translated literature on the topic can also be a valuable resource, especially when comparing the original text with its translation [13, p. 290]. For instance, the challenge of selecting a dictionary equivalent arose during the translation of the term

"chip," which required considering options like "microchip," "crystal," "chip," etc., depending on the context in which the term was utilized. For example:

When employing the calquing method of translation, an English term adopts Ukrainian morphology, conjugation, and conjugation paradigms while retaining its original root in Cyrillic. Experts widely consider this method to be prevalent in translating English computer terms due to its high productivity, not only enriching standard vocabulary but also contributing to slang, for example, "user."

1.3. Specifics of mass-media discourse text analysis

The study of media texts is the basis for forming an idea of how reality is constructed and represented in the media. Distinctive features of contemporary media texts: - corporate nature of production; - ideological pluralism; - dynamic nature; - specificity of the means of creation; - multidimensionality; - multidimensionality; - extended interpretation of verbal level units; - inclusion in the hypertext stream.

As special trends in contemporary media texts, researchers note, on the one hand, the expansion of the author's presence, and, on the other hand, his minimization, i.e., the effect of absence. The author's beginning is expressed through a huge range of means - implicit, paraphrase, grammatical, lexical constructive, and precedent phenomena.

The focus of scholars' attention is on the means and methods of constructing a speech event in connection with pragmatic, socio-cultural and other approaches. In the postmodern situation, the real is subject to various transformations, and a conditional context is created that is, in fact, more interesting than the information itself. The media text does not reflect reality as much as it models it and creates a new reality.

Upon analyzing the key characteristics of mass media discourse, a provisional model of the text emerges as a thematically, stylistically, and semantically organized entity. It is logically structured, complete, and marked by the extensive use of specialized terminological vocabulary. The grammatical and syntactic structure is complex, and the text may fall within the scientific and technical style, emphasizing

scientific activity, technological progress, or serving educational purposes related to the IT field [11, p. 187].

To validate the accuracy of this characterization, it is valuable to examine a snippet from the mass media discourse. An illustrative example is a passage from the introductory developer textbook titled "C++ Primer Plus" by Stephen Prata (Pages 104 and 146) [31]:

Page 104:

case, C++ doesn't define what the result should be; that means different implementations can respond differently. Traditional initialization behaves the same as assignment. Listing 3.13 shows a few conversions by initialization. Listing 3.13 init.cpp // init.cpp -- type changes on initialization #include int main() { using namespace std; cout.setf(ios_base::fixed, ios_base::floatfield); float tree = 3; // int converted to float int guess(3.9832); // double converted to int int debt = 7.2E12; // result not defined in C++ cout << "tree = " << tree << endl; cout << "guess = " << guess << endl; cout << "debt = " << debt << endl; return 0; } Here is the output from the program in Listing 3.13 for one system: tree = 3.000000 guess = 3 debt = 1634811904 In this case, tree is assigned the floating-point value 3.0.Assigning 3.9832 to the int variable guess causes the value to be truncated to 3; C++ uses truncation (discarding the fractional part) and not rounding (finding the closest integer value) when converting floating-point types to integer types. Finally, note that the int variable debt is unable to hold the value 7.2E12.This creates a situation in which C++ doesn't define the result. On this system, debt ends up with the value 1634811904, or about 1.6E09.Well, that's a novel way to reduce massive indebtedness! Some compilers issue warnings of possible data loss for those statements that initialize integer variables to floating-point values.Also the value displayed for debt varies from compiler to compiler. For example, running the same program from Listing 3.13 on a second system produced a value of 2147483647. Initialization Conversions When {} Are Used (C++11) C++11 calls an initialization that uses braces a list-initialization.That's because this form can be used more generally to provide lists of values for more complicated data types. It's more

restrictive in type conversions than the forms used in Listing 13.3. In particular, listinitialization doesn't permit narrowing, which is when the type of the variable may not be able to represent the assigned value. For example, conversions of floating types to integer… [31].

Page 146:

Here's the output from the program in Listing 4.12: bouquet: sunflowers for $12.49 choice: sunflowers for $12.49 As you can see, memberwise assignment is at work, for the members of the choice structure are assigned the same values stored in the bouquet structure. You can combine the definition of a structure form with the creation of structure variables.To do so, you follow the closing brace with the variable name or names: struct perks { int key_number; char car[12]; } mr_smith, ms_jones; // two perks variables You even can initialize a variable you create in this fashion: struct perks { int key_number; char car[12]; } mr_glitz = { 7, // value for mr_glitz.key_number member "Packard" // value for mr_glitz.car member }; However, keeping the structure definition separate from the variable declarations usually makes a program easier to read and follow. Another thing you can do with structures is create a structure with no type name.You do this by omitting a tag name while simultaneously defining a structure form and a variable: struct // no tag { int x; // 2 members int y; } position; // a structure variable This creates one structure variable called position [31].

The author of this book, Stephen Prata, is a notable American computer scientist and author renowned for his works on programming, which include titles like C++ Primer and The Art of Assembly Language. In this excerpt, the presence of an extralinguistic factor is evident through a schematic code. The technical nature of the text is indicated by the inclusion of this code, suggesting its association with a technical field.

It can be inferred that the text serves an educational purpose, as the provided scheme (code) appears to be an illustrative example for analysis and study. While the schematic code is a significant extralinguistic element, the primary determinant of the discourse type is the text itself.

This text is designed to both inform and educate its audience, focusing on a specific topic related to learning the C++ programming language. Its objective is to enhance the reader's skills and elevate their understanding of the subject matter. Notably, the features of technical language are observed in the text. It is explicit and objective, emphasizing denotative characteristics. Written in the third person and utilizing conjugated verbs in the indicative mood, the text assumes the **artefact type**, as it reflects and influences the real world.

Additionally, the text extensively employs passive voice constructions, as evidenced by phrases like "tree is assigned." As for the **communicative characteristics of the text**, notably, this technical text stands out for its lack of figurative language devices, such as similes, personification, or metaphors. As a result, it does not evoke emotions or impressions in the reader. Crucially, technical language is characterized by its reliance on specific terminology, jargon, and neologisms that are particular to a given field or discipline.

The text predominantly features IT terminology and belongs to the **mass media discourse**, as evidenced by the following examples:

- Tree: Refers to an algorithm designed for organizing and locating files, also known as records or keys, within a database.

- Int: Represents a data type that stores integers, which are whole numbers without decimal points.

- Compilers: Special programs tasked with translating the source code of a programming language into machine code, bytecode, or another programming language.

- Data: Information that has been translated into a format efficient for movement or processing.

- Running the same program: Refers to executing a program loaded into the computer's primary memory, known as RAM.

- C++: A cross-platform programming language capable of creating high-performance applications.

Thus, we can conclude that mass media discourse in this case is a subtype of technical discourse, based on the use of numerous subject field terms. It covers a wide range of areas of human activity, including IT and computer technologies.

Discourse parameters of the text:

The provided text appears to belong to the category of technical texts, specifically related to programming and C++ language. Several key features support this analysis:

Extralinguistic factors:

1. Content and terminology:

The text discusses C++ programming concepts, including variable initialization, type conversions, and structures.

It uses technical terms related to programming, such as "initialization," "type conversions," "list-initialization," "memberwise assignment," and "structure variables."

2. Code listings:

Code listings (e.g., "Listing 3.13," "Listing 4.12") are included, which is common in technical or programming-related discourse.

3. C++ features:

The text references specific features of the C++ programming language, such as C++11 changes, initialization with braces, and the ability to have member functions in structures.

4. Educational tone:

The text has an educational tone, explaining concepts and providing examples to help the reader understand C++ programming principles.

5. Use of technical symbols:

Symbols related to C++ programming, such as "{ }," "cout," "struct," and "->," are used throughout the text.

Considering these characteristics, the text falls within the category of scientific or technical discourse, specifically focusing on programming concepts in the context of the C++ language.

Stylistic characteristics of the text:

The provided text primarily consists of technical and educational content related to C++ programming, and as such, it does not heavily employ stylistic devices commonly associated with literary or expressive writing. However, I will attempt to analyze the text with respect to the specified criteria:

1. Analysis of tropes and figures of speech:

Metaphors and Similes: The text is predominantly straightforward and technical, with minimal use of metaphors or similes. The language is clear and direct, aiming to convey programming concepts without embellishment.

Irony, Hyperbole, and Litotes: These rhetorical devices are not prominent in the text. The content is presented in a factual manner, focusing on explaining programming concepts.

2. Analysis of special literary and colloquial vocabularies:

Technical Vocabulary: The text extensively uses technical vocabulary associated with C++ programming. Terms such as "initialization," "type conversions," "list-initialization," and "memberwise assignment" are part of the specialized language of programming.

Colloquial Vocabulary: The text maintains a neutral and formal tone, with limited use of colloquial expressions. It aims to educate the reader on programming concepts without resorting to informal language.

3. Specialized linguistic elements:

Code Listings: The inclusion of code listings is a characteristic feature of programming-related discourse. Code snippets, variables, and function names are used to illustrate concepts.

Technical Symbols: Symbols and notations specific to C++ programming, such as "{}," "cout," "->," and "E12," are employed to represent programming constructs and operations.

4. Clarity and precision:

The text prioritizes clarity and precision in language, focusing on conveying information accurately. This aligns with the conventions of technical writing, where ambiguity is minimized.

In summary, the stylistic characteristics of the text are largely utilitarian, emphasizing clarity and precision in conveying technical information related to C++ programming. The use of expressive or literary devices is minimal, as the primary goal is to instruct and inform in a straightforward manner.

Through a stylistic analysis of this fragment, it has been determined that IT discourse exhibits distinctive language features. These include the use of general scientific and specialized terminology, a prevalent reliance on a limited set of aspectual-temporal forms in verbal vocabulary, the omission of personal speech traits, the inclusion of non-verbal elements, and potential markers of an educational context.

CHAPTER 2. IT TERMINOLOGY IN MASS-MEDIA DISCOURSE: DISCOURSE FEATURES, TRANSLATION OPTIONS

The translation of terminology poses the most difficult problems in the field of translation studies, as terms belong to a layer of vocabulary that is rapidly evolving. A modern translator should remember that an adequate translation is not possible without taking into account the structure and semantics of IT terms.

It should be noted that the process of unifying and applying IT terminology is complicated by many factors: firstly, the creator of a computer technology is not one person, but rather a group of people.

Secondly, these technologies are mostly developed in English-speaking countries, so the initial creation of terms takes place in English, which makes it hard to translate.

Thirdly, such terms are required to be briefly aware of not only by specialists in a particular field, but also by a wide range of non-specialists in all countries of the world. This leads to a complication of the terms' meaning, as different variations appear, and the process of standardisation and establishment of a single version depends on the "popularity" and prevalence of a particular variant of the name.

2.1 Lexical transformations in the translation of mass-media discourse IT terminology

Transcoding is a method of translation when the sound and/or graphic form of a source language word is transcribed using the alphabet of the target language.

There are four types of transcoding:

1. **Transcription** (when the letters of the target language represent the sound form of the source language word, for example: *англ. peak, computer, stream – укр. пік, комп'ютер, стрім*);

2. **Transliteration** (the word of the source language is transmitted by letters, for example: *англ. laser, processor, virus – укр. лазер, процесор, вірус*);

3. **Mixed transcoding** (transcription with elements of transliteration, for example: *англ. overlook, service, certificate – укр. оверлок, сервіс, сертифікат*);

4. **Adaptive transcoding** (when the form of a word in the source language is slightly adapted to the phonetic and/or grammatical structure of the target language, for example: *англ. pallet – укр. полета, англ. platform – укр. платформа, англ. biometry – укр. біометрія, англ. procedure – укр. процедура*).

Transcoding of neologisms is used in translation when there is no corresponding concept and translation equivalent in the target language, and it is impossible to find a word in the target language that would convey the meaning of the concept and meet the norms of term formation.

Transcription and transliteration are not often used in their pure form. Transcription with parts of transliteration may be used. For example, the following English terms are translated using transliteration/transcription: *Alpha – Альфа, byte – байт, monitor – монітор, click – клік, тощо.*

For an adequate translation of terminology conveyed in one word, it is necessary to take into account the fact that the doubling of consonants between vowels is not translated, for example: *account – акаунт.*

This translation model is currently very common when translating English-language IT terms.

In this case, an English-language term acquires Ukrainian morphology and declension paradigm, while retaining the original root when written in Cyrillic.

Transliteration and transcription are very productive translation methods that enrich both standard and slang vocabulary, for example: *user – юзер, shareware – шейрвейр (ресурс спільного використання).*

When transliteration and transcription are used to translate individual words of terms, the translation of phrases is more often done by means of calculation and explication.

(1) "*This function will be called by the server on every request, returning an object that will be passed to the page component as a prop.*" *(SOF1:URL)-"Ця*

функція буде викликатися сервером за кожним запитом, повертаючи об'єкт, який буде передано компоненту сторінки як <u>пропˮ</u>. Here the slang word "prop" was transalted as "проп", which also states for "параметр". The translation "проп" might be a simplified adaptation to convey the general idea of a component attribute or property, however can be hard to understand for people who is not familier with IT sector, that's the reason the technique of transcription was used.

(2) *"Image optimization involves reducing the size of an image <u>file</u>"* (SOF2:URL)- *"Оптимізація зображення передбачає зменшення розміру <u>файлу</u>".* Also the mothod of transcription was used here in order to ensure adequate sentence translation.

(3) *"Traditionally, applications load all the components and the CSS required by the application in the initial load."* (SOF3:URL)- *"Традиційно програми завантажують усі компоненти необхідні для "CSS" під час початкового завантаження".* In this case the word "components" were translated as "компоненти" by using transliteration as the only best of translating.

(4) *<u>"Caching</u> improves response times and reduces bandwidth usage by serving content from a cache instead of the original source"* (SOF4:URL) - *"<u>Кешування</u> покращує час відповіді та зменшує використання пропускної здатності шляхом надання вмісту з кешу замість оригінального джерела."* This translation using transliteration effectively conveys the technical concept of caching, which refers to storing frequently accessed data or content in a cache to improve response times and reduce bandwidth usage.

Adapted transcoding is a translation method that uses not only transcoding but also its transformation in order to convey it in a different form, which is not due to the organisation of information in the original, but to a special task of interlingual communication. Adaptive transcoding is aimed at a given form of transformation of information contained in the original.

The following terms are translated using adaptive transcoding: *profile – профіль, viewer – в'ювер*. The peculiarity of using this translation method in the

Ukrainian language is the softening of the end of a word that does not occur in the English word, such as the word "модуль".

The peculiarity of adapted transcoding is the presence of a genitive ending in the target language, such as in the word "модифікація".

(5) "*AI stands for artificial intelligence, which is the simulation of human intelligence processes by machines like <u>computer</u> <u>systems</u>.* (C1:URL)- "Під AI мається на увазі штучний інтелект, який є симуляцією процесів людського інтелекту такими механізмами, як <u>комп'ютерні</u> <u>системи</u>.". Here we used adaptive transcoding in order to convey the words "computer" and "machines".

(6) *"Binary <u>code</u> is a two-symbol numbering <u>scheme</u> that computers use to understand programming instructions"* (C2:URL)- Двофакторний <u>код</u> — це двосимвольна <u>схема</u> нумерації, яку використовують комп'ютери для розуміння інструкцій програмування. Such words as "code" and "scheme" were translated with the help of adaptive transcoding method.

Sometimes mixed transcoding is used, when most of the transcoded word reflects its sound in the source language, but at the same time some elements of its graphic form are transmitted".

More rarely mixed and adapted transcoding are selected as a way of translating . Examples of mixed transcoding: *interface – інтерфейс, adaptor – адаптер, chat – чат, on-line – онлайн* etc. Examples of adapted transcoding: *menu – меню, matrix – матриця; card – карта; profile – профіль; command – команда; domain – домен.*

Examples of pure transcription include the terms *cache* (кеш), *slash* (слеш), *BASIC* (Бейсік). There are more examples of transliteration: *port* (порт), *adapter* (адаптер), *assembler* (асемблер), *cursor* (курсор), *supervisor* (супервізор).

Another lexical translation method is **calculation**. Calculation is a means of translating a lexical unit of the source language by replacing its constituent parts (morphemes or words) with their lexical equivalents in the target language.

Calculation was used in the translation of such terminological phrases as: *process-handling procedure* (процедура управління процесом); *peer view*

instances (рівноправні екземпляри видимого елемента); *disk storage* (дискова пам'ять); *current drive* (поточний дисковод); *image recognition* (розпізнання зображення).

When translating English-language texts of IT discourse, full semantic calques are used: *diskstorage – дискова пам'ять, imagerecognition – розпізнання зображення*, і неповні семантичні кальки: cyberworld – кіберсвіт. Calques are prone to assimilation, and in some cases they are separated into a separate group of translationloans – запозичення при перекладі.

Most often, calques are used when translating phrases or terms. Sometimes, in the process of translating IT terms, calculation and transcription are used simultaneously, for example: filesystem – файлова система.

Calculation is used to translate names of technological standards, software products, and computer hardware, such as AMD, Microsoft, Intel, etc. For example, the name Microsoft is used more often than others in IT discourse. As a result, it is often written in Cyrillic in journalism - Майкрософт.

As a translation technique it is used not only when translating compound words, but also when translating one of the components of a compound term. It is not uncommon for calquing to be used in the translation of complex terms that have been created using common vernacular words.

In some cases, the use of calquing is accompanied by a change in the calqued elements. Transcription and calquing are often used simultaneously during translation, for example, composite key – композитний ключ, file system – файлова система.

In these cases, the Ukrainian equivalents of English-language IT terms are created using the first dictionary entry of each term.

An additional advantage of the calquing method is the brevity of the resulting term and its correlation with the source word. Calculation can be used when the translated term does not violate the norms of word usage and compatibility.

Calculation can be used when the calculated equivalent does not violate the norms of word combinability in the target language: *infrastructure –*

інфраструктура, IT companies – IT-компанії, cyber security – кібербезпека, website – веб-сайт. It is important to remember that this technique is not a simple mechanical transfer of the original form of a terminological phrase into the target language.

(7) *"A <u>programming language</u> is a set of symbols, grammars and rules with the help of which one is able to translate algorithms to programs that will be executed by the computer." (N1:URL)- "<u>Мова програмування</u> - це набір символів, граматик і правил, за допомогою яких можна перевести алгоритми в програми, які будуть виконуватися комп'ютером.".* In order to translate the term "programming language" method of calculation was used. In this case this method of translation maintains a direct correspondence between the words in both languages without significant modification or adaptation.

(8) *"<u>Machine language</u> is a collection of binary digits or bits that the computer reads and interprets" (N2:URL)- "<u>Машинна мова</u> - це набір двійкових цифр або бітів, які комп'ютер читає та інтерпретує".* In the English sentence, "machine language" is translated as "машинна мова" in Ukrainian. This translation involves substituting the English term with its Ukrainian equivalent, maintaining a one-to-one correspondence between the words in both languages.

(9) *"<u>User interface</u> (UI) design is the process <u>designers</u> use to build interfaces in software or computerized devices, focusing on looks or style. Designers aim to create interfaces which users find easy to use and pleasurable. UI design refers to graphical user interfaces and other forms—e.g., voice-controlled interfaces." (IDF1: URL)- "Дизайн <u>інтерфейсу користувача</u> — це процес, який <u>дизайнери</u> використовують для створення інтерфейсів у програмному забезпеченні чи комп'ютеризованих пристроях, зосереджуючись на зовнішньому вигляді чи стилі. Дизайнери прагнуть створювати інтерфейси, які користувачі вважають простими у використанні та приємними. Дизайн інтерфейсу користувача відноситься до графічних інтерфейсів користувача та інших форм, наприклад, інтерфейсів з голосовим керуванням.".* A method of calculation is used in translating the term "User Interface" into Ukrainian using

direct word-for-word equivalents for "User-Користувач" and "Interface-Інтерфейс". The same for "designers- дизайнери".

(10) *"Operating System lies in the category of system software. It basically manages all the resources of the computer. An operating system acts as an interface between the software and different parts of the computer or the computer hardware. The operating system is designed in such a way that it can manage the overall resources and operations of the computer." (GFG1:URL) - "Операційна система відноситься до категорії системного програмного забезпечення. В основному він керує всіма ресурсами комп'ютера. Операційна система діє як інтерфейс між програмним забезпеченням і різними частинами комп'ютера або апаратним забезпеченням комп'ютера. Операційна система розроблена таким чином, що вона може керувати загальними ресурсами та операціями комп'ютера.".* In this example, a calque is used by directly translating "Operating System" into Ukrainian as "Операційна система," maintaining the structure and meaning of the original term.

Specification of meaning is a lexical transformation whereby a word (term) of broader semantics in the original is replaced by a word (term) of narrower semantics.

For example*: engagement – бій, diversion – відхилення, garnison force – гарнізон, jump master – відповідальний за скидання, indirect verification – інструментальний контроль ядерного матеріалу, sustainability – здатність до ведення тривалих бойових дій, outsider – зовнішній правопорушник/ворог, state nuclear regulatory body – орган державного регулювання ядерної та радіаційної безпеки, stealth action – секретна тактика правопорушника; framework nation – керівна країна, pathfinders – диверсійнорозвідувальна група.*

Generalisation is a lexical translation transformation opposite to concretisation, as a result of which a word with a narrower meaning is replaced by a word with a broader meaning. This transformation is usually used when translating the general vernacular and general scientific (general technical) layers of vocabulary in scientific and technical texts.

Since its application may lead to a certain loss of information accuracy, it should be used carefully in cases where the use of a dictionary equivalent may lead to a violation of the grammatical or stylistic norms of the target language.

For example: *ground zero (surface zero) – епіцентр; measuring device – міра; regulatory standard – норма; measurement in a closed series – сукупні вимірювання; manpower support – забезпечення життєдіяльності; photo electric beam sensor – фотоелектричний датчик.*

In general, when translating from English into Ukrainian, the phenomenon of replacing a specific, generic concept with a more abstract, generic one is much less common than the concretisation of meaning. Sometimes this is required by the logic of thought construction.

(11) "*When you save, you see your change on your <u>web browser</u> in a matter of a hundred milliseconds or so.*"*(S01: URL)- "Коли ви робите збереження, ви бачите зміни у мережевому браузері приблизно за сотню мілісекунд.* In English, "web browser" refers to software used to access and view websites on the internet. When translating this term into another language where the specific term "web browser" might not be widely recognized, a translator might use a more generalized description like "мережевий браузер" in Ukrainian.

(12) "*What's really neat—this is where the strength of this ecosystem lies—is this fast refresh technology is extremely fast.*" *.(S02: URL)- "Що справді чудово — саме в цьому полягає сила цієї екосистеми — ця технологія оновлення надзвичайно швидка*". The term "ecosystem" in the context of IT and technology often refers to a complex network or environment where different software, hardware, services, and entities interact and operate together. When translating the concept of "ecosystem" in IT, the transaltion can include using generalization to convey the broader idea of connected components and systems.

Modulation is a variation of the message, which can be achieved by changing the angle or point of view. This method can be used when it is clear that a literal translation leads to a grammatically correct expression, but contradicts the spirit of the target language.

For example: *technical neutralization – виведення з ладу технічних засобів противника; dispersion error – помилка відстані розсіювання; key network – життєвоважлива мережа; nerve point – життєвоважливий пункт; vital center – життєвоважливий центр; relative work – відстань демонтування; utility helicopter – гелікоптер загального призначення; shipment check – вихідний контроль матеріалу/багажу; severe accident – запроектна аварія; extraction force – евакуаційні сили; conflict freeze – призупинення конфлікту.*

(13) *"Artificial intelligence (AI) technology allows computers and machines to simulate human intelligence and problem-solving tasks. "(I1:URL)- "Технологія <u>тучного інтелекту</u> (AI) дозволяє комп'ютерам і машинам імітувати людський інтелект і розв'язувати завдання".* When translating the term "artificial intelligence" into another language, the concept of artificial intelligence can be modulated or adapted based on the linguistic and cultural context of the target audience.

(14) *"As a result, you can <u>use blockchain technology</u> to create an unalterable or immutable ledger for tracking orders, payments, accounts, and other transactions" (AA1:URL)- "У результаті ви можете використовувати технологію блокчейн для створення незмінної книги для відстеження замовлень, платежів, рахунків та інших транзакцій".* By using modulating to translate the term "blockchain technology" the aim is to emphasize specific aspects of blockchain technology that are more understandable or relatable to the target audience

Concretization is also the very common method of translating the IT terminology. This method aims to make the translated content more understandable and relatable by providing tangible examples or localized expressions.

(15) *"A VPN, which stands for virtual private network, establishes a digital connection between your computer and a remote server owned by a VPN provider, creating a point-to-point tunnel that encrypts your personal data, masks your IP address, and lets you sidestep website blocks and firewalls on the internet." (AM1:URL)- "VPN, що розшифровується як віртуальна приватна мережа,*

встановлює цифрове з'єднання між вашим комп'ютером і віддаленим сервером, що належить постачальнику VPN, створюючи тунель «точка-точка», який шифрує ваші особисті дані, маскує вашу IP-адресу та дозволяє вам обходити блокування веб-сайтів і брандмауери в Інтернеті". The original term "Virtual Private Network (VPN)" is a technical term that may not directly convey its meaning to all audiences, especially those less familiar with IT terminology. Using concretization dwells upon the technical term into more specific components.

(16) *"ISPs log and track your browsing history through your device's unique IP address." (AM2:URL)- "Постачальники послуг Інтернету реєструють і відстежують вашу історію веб-перегляду за допомогою унікальної IP-адреси вашого пристрою. ".* Here concretization was used in order to make the term more understandable for people who are not familiar with this specific terminology.

2.2 Grammatical transformations in the translation of mass-media discourse IT terminology

The methods of **omission** and **addition** is not used as often in the translation of computer-related texts, but nevertheless they can be found in the work of translators with computer-related texts.

(17) *"Software development kits (SDKs) include documentation, application programming interfaces (APIs), code samples, libraries and processes, as well as guides that developers can use and integrate into their apps. Developers can use SDKs to build and maintain applications without having to write everything from scratch."(TT1:URL)-"Набори розробника програмного забезпечння включають документацію, інтерфейси прикладного програмування, зразки коду, бібліотеки та процеси, а також посібники, які розробники можуть використовувати та інтегрувати у свої програми. Розробники можуть використовувати набори програмного забезпечення для створення та підтримки програм без необхідності писати все з нуля. ".* In the Ukrainian translation the acronym "SDK" is translated with the help of addition in order to

render the correct meaning of the term as "набір розробника програмного забезпечення".

(18) *"An* <u>*internet of things*</u> *(*<u>*IoT*</u>*) ecosystem consists of web-enabled smart devices that use embedded systems -- such as processors, sensors and communication hardware -- to collect, send and act on data they acquire from their environments."(TT2)-* *"Екосистема* <u>*мережі підключених пристроїв*</u> *складається з «розумних» пристроїв які підтримують інтернет і використовують вбудовані системи, такі як процесори, датчики та комунікаційне обладнання, щоб збирати, надсилати та діяти на основі даних, які вони отримують із свого середовища.".* In this case the most suitable transformation to use in order to transalte such acronym is addition as well, since the term can be quite challenging understanding without incuding the additional descriptive word.

(19) "*A* <u>*hard shutdown*</u> *refers to forcibly turning off a computer or electronic device by cutting off its power supply. This can be done by holding down the power button for an extended period or by unplugging the device.*" (Q1:URL)- *"Повне* <u>*вимикання*</u> *означає примусове вимкнення комп'ютера або електронного пристрою шляхом припинення його живлення. Це можна зробити, утримуючи кнопку живлення протягом тривалого часу або від'єднавши пристрій.".* Here we translated "hard shutdown" as "вимкнення" since it is a direct equivalent of this prase in Ukrainian.

(20) *"A* <u>*local area network*</u> *can be small or large, ranging from a home network with one user to an enterprise network with thousands of users and devices in an office or school."* (C1: URL) – *"*<u>*Локальна мережа*</u> *може бути малою або великою, починаючи від домашньої мережі з одним користувачем і закінчуючи корпоративною мережею з тисячами користувачів і пристроїв в офісі чи школі.".* "Local area" was rendered as "локальна" with the purpose of avoiding the tautology in the target language.

Transposition is a grammatical transformation where in order to reach the accurate translation a translator can change the words order in the source language .

For example, in the following translation, the word forms applications and introduces are translated by combining two words: "There are many different applications of this material-Цей матеріал застосовується у багатьох різних галузях"

(21) *"The purpose of <u>data encryption</u> is to protect digital data confidentiality as it is stored on computer systems and transmitted using the internet or other computer networks. The outdated <u>data encryption standard</u> (DES) has been replaced by modern encryption algorithms that play a critical role in the security of IT systems and communications."* (DG1:URL)- *"Метою <u>шифрування даних</u> є захист конфіденційності цифрових даних, які зберігаються в комп'ютерних системах і передаються через Інтернет або інші комп'ютерні мережі. Застарілий <u>стандарт шифрування даних</u> (DES) було замінено сучасними алгоритмами шифрування, які відіграють вирішальну роль у безпеці IT-систем і комунікацій".* In this sentence we can find two example of using the transposition: "data encryption- шифрування даних" and "data ecryption standard- стандарт шифрування даних". Transposition is the most suitable transformation to be used in order to adapt the word order while preserving the integrity and the meaning.

(22) *"<u>Network Security</u> involves access control, virus and antivirus software, application security, network analytics, types of network-related security (endpoint, web, wireless), firewalls, VPN encryption and more."* (C1:URL)- *"<u>Безпека мережі</u> передбачає контроль доступу, вірусне та антивірусне програмне забезпечення, безпеку додатків, мережеву аналітику, типи безпеки, пов'язані з мережею (кінцева точка, Інтернет, бездротова мережа), брандмауери, шифрування VPN тощо.".* Using the transposition method here for "Network Security" term translation ensures that the translated term align with Ukrainian language system and is easily understood by Ukrainian-speaking audiences.

Grammatical replacement is also widely used for transalting IT terminology, which can be seen from following examples.

(23) *"<u>Cloud computing</u> is the on-demand delivery of IT resources over the*

Internet with pay-as-you-go pricing. Instead of buying, owning, and maintaining physical data centers and servers, you can access technology services, such as computing power, storage, and databases, on an as-needed basis from a cloud provider like Amazon Web Services (AWS)." (AA1:URL)- *"<u>Хмарні обчислення</u> — це доставка IT-ресурсів на вимогу через Інтернет із оплатою за використання. Замість того, щоб купувати, володіти та підтримувати фізичні центри обробки даних і сервери, ви можете отримати доступ до технологічних послуг, таких як обчислювальна потужність, сховище та бази даних, за потреби від хмарного постачальника, як-от онлайн-сервіси Амазону (AWS)."*. Grammatical replacement is used to transform the English noun phrase into a grammatically correct phrase in Ukrainian, changing parts of speech from noun to adjective in the target language.

(24) *"<u>Data storage</u> is the retention of information using technology specifically developed to keep that data and have it as accessible as necessary. Data storage refers to the use of recording media to retain data using computers or other devices. The most prevalent forms of data storage are file storage, block storage, and object storage, with each being ideal for different purposes."* (HPE1:URL)- *"<u>Зберігання даних</u> — це збереження інформації за допомогою технології, спеціально розробленої для збереження цих даних і забезпечення максимального доступу до них. Зберігання даних означає використання носіїв запису для збереження даних за допомогою комп'ютерів або інших пристроїв. Найпоширенішими формами зберігання даних є зберігання файлів, блокове зберігання та зберігання об'єктів, кожне з яких ідеально підходить для різних цілей»."*. "Data Storage" consists of two nouns, and was translated into Ukrainian using a gerund form ("Зберігання") to interprete the action of storing data.

Functional analogue as a translation method implies that the meanings of the words used as a term differ. As a result of choosing a word with the meaning that best suits the context of the use of the term IO, the meaning is often narrowed, and a little less often expanded.

In the following examples, we also use the functional analogue translation: *«array» — «масив», «bilinear» — «білінійна фільтрація», «minimize» — «згорнути», «upload» — «передати», «відправити», «додати», «вивантажити»; «accessory» — «периферійний пристрій», «peripheral» — «периферійний пристрій», «account» — «обліковий запис» (also term «account policy» - «політика облікових записів»), «acknowledgement» — «підтвердження», «benchmark» — «вимірювати продуктивність».*

You can also give an example of a case of combining calculation with a functional analogue («Advanced Power Management» — «автоматичне керування живленням»).

The same applies to a couple of terms «Advanced Power Management» — «автоматичне керування живленням», where is the term element «Advanced» was not translated literally, and was replaced by the word "automatic" during the translation.

Sometimes there is an expansion of the meaning when using a functional analogue: *«hotfix» — «виправлення» , «hotfix package» — «виправлення», «aspect ratio» — «пропорції».*

The translation of the terms "hotfix" and "hotfix package" as "виправлення" misses the urgency, the speed of providing this fix - what is expressed in the MoD terms by the element "hot". The term "aspect ratio" means the ratio of length to width, while its translation "пропорції" has more meanings.

(25) *"Firewalls have been a first line of defense in network security for over 25 years. They establish a barrier between secured and controlled internal networks that can be trusted and untrusted outside networks, such as the Internet." (C1:URL)- "Брандмауери були першою лінією захисту мережі вже понад 25 років. Вони встановлюють бар'єр між захищеними та контрольованими внутрішніми мережами, яким можна довіряти та ненадійними зовнішніми мережами, такими як Інтернет.".* The literal translation of "Firewall" would be "вогнепровід," and the term "Брандмауер" is commonly used and understood in Ukrainian to represent the concept of a network firewall.

(26) *Open-source software are computer programs whose source code is available for anyone to view, modify, and distribute. Unlike closed source software, which keeps its code hidden from users, open-source software encourages collaboration and transparency among developers. (SW1: URL)- "Відкрите програмне забезпечення— це комп'ютерні програми, вихідний код яких доступний будь-кому для перегляду, зміни та розповсюдження. На відміну від програм із закритим кодом, код якого прихований від користувачів, програмне забезпечення з відкритим кодом заохочує співпрацю та прозорість між розробниками.".* In this example, "Відкрите програмне забезпечення" serves as a functional analogue for "Open Source Software" in Ukrainian.

(27) *"A load balancer acts as the "traffic cop" sitting in front of your servers and routing client requests across all servers capable of fulfilling those requests in a manner that maximizes speed and capacity utilization and ensures that no one server is overworked, which could degrade performance. If a single server goes down, the load balancer redirects traffic to the remaining online servers. When a new server is added to the server group, the load balancer automatically starts to send requests to it." (N1:URL)- "Балансувальник навантаження діє як «гаїшник», який сидить перед вашими серверами та направляє клієнтські запити на всі сервери, здатні виконувати ці запити таким чином, щоб максимізувати швидкість і використання потужності та гарантувати, що жоден сервер не буде перевантажений, що може погіршити продуктивність. Якщо один сервер виходить з ладу, балансувальник навантаження перенаправляє трафік на інші онлайн-сервери. Коли новий сервер додається до групи серверів, балансувальник навантаження автоматично починає надсилати йому запити.".*

(28) *"Routers allow devices to connect and share data over the Internet or an intranet. A router is a gateway that passes data between one or more local area networks (LANs). Routers use the Internet Protocol (IP) to send IP packets containing data and IP addresses of sending and destination devices located on separate local area networks. Routers reside between these LANs where the sending*

and receiving devices are connected. Devices may be connected over multiple router "hops" or may reside on separate LANs directly connected to the same router." *(JN1)- "Маршрутизатори дозволяють пристроям підключатися та обмінюватися даними через Інтернет або інтрамережу. Маршрутизатор — це шлюз, який передає дані між однією або кількома локальними мережами (LAN). Маршрутизатори використовують Інтернет-протокол для надсилання IP-пакетів, що містять дані та IP-адреси пристроїв-відправників і пристроїв призначення, розташованих в окремих локальних мережах. Маршрутизатори знаходяться між цими локальними мережами, де з'єднані пристрої, що надсилають і приймають. Пристрої можуть бути підключені через кілька маршрутизаторів або можуть знаходитися в окремих локальних мережах, безпосередньо підключених до одного маршрутизатора.".*

2.3 Lexical and grammatical transformations in the translation of mass-media discourse IT terminology

Explication (descriptive translation) is a lexical and grammatical transformation in which a lexical unit of the source language is replaced by a phrase that explains or defines a certain unit.

Explication is an extremely productive means of translating computer terms, as the rapid development of the information technology sector does not allow many terms to find their equivalents in a timely manner and gain a foothold in the target language.

Explication is used to translate multi-component terminological phrases, such as: *native mode* – режим роботи у власній системі команд; *processor-specific code* – програма, прив'язана до певного процесора; *non-mouse program* – програма, яка не підтримує роботу з мишкою; *business application* – програма комерційних розрахунків; *nucleus* – ядро операційної системи.

Productivity of explication when translated into Ukrainian is also explained by differences in the means of creating words and phrases. The English language, which is 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.

Difficulties in the translation of multi-component phrases are often eliminated by tracing with a change in the sequence of the components of the phrase: *CSMA/CA (Carrier Sense Multiple Access/collision Avoidance)*– колективний доступ з контролем несущцої і вилученням конфліктів; *BIOS (Basic Input/Output System)* – базова система вводу-виводу; *DMA (Direct Memory Access)* – прямий доступ до пам'яті.

In order to correctly apply this method of translation, it is necessary to know the subject area of the translated text well in order to correctly reveal the meaning of the concept indicated by the term.

(29) *"When companies today deploy artificial intelligence programs, they are most likely using <u>machine learning</u> — so much so that the terms are often used interchangeably, and sometimes ambiguously. Machine learning is a subfield of artificial intelligence that gives computers the ability to learn without explicitly being programmed." (MSS1:URL)-* "Коли сьогодні компанії розгортають *програми штучного інтелекту, вони, швидше за все, використовують <u>технології машинного навчання</u> — настільки, що ці терміни часто використовуються як взаємозамінні, а іноді й неоднозначні. Технології машинного навчання — це підсфера штучного інтелекту, яка дає комп'ютерам можливість навчатися без явного програмування.".* Usage of a descriptive translation method here is crusial to give the reader more understanding of what is meant by the English term "machine learning".

(30) *"Advanced bots are able to use machine learning to identify these distorted letters, so these kinds of <u>CAPTCHA</u> tests are being replaced with more complex tests." (CF1:URL)-* "Просунуті боти можуть використовувати *машинне навчання, щоб ідентифікувати ці спотворені літери, тому ці типи <u>тестів на ідентифікування ботів</u> замінюють більш складними тестами.*

(31) *"Companies use <u>data mining</u> software to learn more about their customers. It can help them to develop more effective marketing strategies, increase*

sales, and decrease costs. Data mining relies on effective data collection, warehousing, and computer processing." (I1:URL)- "Компанії використовують програмне забезпечення для <u>аналізу даних для виявлення закономірностей,</u> щоб дізнатися більше про своїх клієнтів. Це може допомогти їм розробити більш ефективні маркетингові стратегії, збільшити продажі та зменшити витрати. Інтелектуальний аналіз даних базується на ефективному зборі даних, їх зберіганні та комп'ютерній обробці.". In order to render the meaning of the term "data mining" it was crusial to use a descriptive translation method to five more understanding to audience who is not very familiar with the topic.

(32) *"One way to think of <u>UX design</u> is to consider the entire process or journey a user experiences when interacting with a product or service. How is the user introduced to the service or product — through advertising, blogs, or something else? What kind of interaction does the user have with the brand? How does the user feel after the interaction? All of these questions and more are key considerations within UX design."(CE1:URL)-* "Один із способів подумати про <u>проектування користувацьких інтерфейсів з урахуванням досвіду користувача</u>— це розглянути весь процес або шлях, який переживає користувач під час взаємодії з продуктом або послугою. Як користувач знайомиться з послугою чи продуктом — через рекламу, блоги чи щось інше? Який тип взаємодії користувача з брендом? Що відчуває користувач після взаємодії? Усі ці та інші питання є ключовими міркуваннями в проектуванні інтерфесів.". Here "UX" stands for "User Experience" and without explaining the abbreviation and the term overall there a high chance of audience not understanding the meaning.

(33) *"The human brain is made up of innumerable elements all working together to create consciousness, thought and our innate humanity. This unique and complex beauty would seem impossible to artificially replicate; however, <u>deep learning</u> is making strides towards a future in which computers can think and learn just as a human brain does."- (I1:URL)* "Людський мозок складається з незліченних елементів, які працюють разом, створюючи свідомість, мислення та нашу вроджену людськість. Цю унікальну та складну красу, здавалося б,

неможливо штучно відтворити; однак <u>методика глибокого навчання</u> робить кроки до майбутнього, в якому комп'ютери зможуть мислити й навчатися так само, як це робить людський мозок." In this example, descriptive translation has been used in order to provide a straightforward and exact term in Ukrainian that explains the nature of "Deep Learning."

(34) *"A <u>bug fix</u> is a change to a system or product designed to handle a programming bug/glitch. Many different types of programming bugs that create errors with system implementation may require specific bug fixes that are successfully resolved by a development or other IT team." (T1:URL)- "<u>Процес виправлення помилок в коді</u> – це зміна системи або продукту, призначеного для обробки програмної помилки/збою. Багато різних типів програмних помилок, які створюють помилки під час реалізації системи, можуть вимагати певних виправлень помилок, які успішно вирішуються розробниками або іншими IT-групами.". Here descriptive transaltion method focuses on describing the specific action or task involved in resolving software issues.*

So, we see that the translation transformations considered by us are actively used in the translation of the term in the discourse texts of multimedia technologies used in informational texts and mass media from English into Ukrainian, as well as in the transfer of unique terminological information contained in them.

There is a considerable number of translation transformations, their various classifications. However, not all of them are often used when translating the terminology under study.

The most frequently used transformations include transcription and transliteration, concretization, generalization, omission and literal translation.

Thus, the main support for the translator in preserving the pragmatic functions of terms in the translation of texts of English-language discourse of multimedia technologies is translation transformations - a set of tools used for translation transformations of the text.

When it comes to terms of the discourse of multimedia technologies, the most popular translation transformations are **lexico-semantic substitutions (modulation, generalization, concretization) and descriptive translation.**

The peculiarities of the translation of multimedia discourse should be considered on the basis of taking into account the whole complex of translation transformations, focusing primarily on the specifics of the terminological composition of the vocabulary.

CONCLUSION

As a result of the analysis of terminology in the field of IT, the following main conclusions can be drawn on the topic.

The discourse of information technologies belongs to professional discourses. As a result of the spread of IT, this discourse includes sub-discourses determined by the field of application of information technologies.

An extra-linguistic feature of this discourse is computer-mediated communication. As in all professional discourses, terminology plays an important role in information technology discourse.

Peculiarities of terminology, such as the predominance of nouns and the attributive type of connection in terminological phrases, the possible variability of terms, as well as the unsatisfactory state of terminology, are also present in the terminology of information technologies.

These features must be taken into account for the successful translation of terminology in technical texts, as well as the fact that such terminology requires the use of not only the basic methods of translation, but also one specialized one - adding a new meaning or, as it is also called, a scientific metaphor.

As for the peculiarities of the terminology of information technologies, they also consist in the predominance of tracing as a method of translation, the use of several methods of translation for one term, the impossibility of using a scientific metaphor for borrowing as a method of translation, the use of borrowed abbreviations together with the full form of the term, the rarity of such negative manifestations variants such as homonymy and polysemy.

Thus, the translation of terminology in the field of information technologies has some features that allow us to distinguish this type of translation from other types of scientific and technical translation.

Terminological systems as a whole present difficulties for translation due to their lack of organization and problematic aspects of their constituent terms, above all variants. It was also established that the theoretical developments regarding the translation of scientific and technical literature cannot be fully used for the

translation of IT terminology. A study was conducted that allowed to describe this type of translation more precisely. Certain trends were found that should be taken into account in the practice of translating IT terms.

The goal of the work — to identify the peculiarities of the translation of terms in the field of information technologies was achieved.

Prospects for further research consist in processing the material not from the point of view of the field of fixation, but from the point of view of the field of terminology functioning, analysis of the terminologies of the original language and the language of translation.

BIBLIOGRAPHY

1.   Pivniak H. H., Busyhin B. S. (2010). Diviziniuk, M. M., Azarenko, O. V., Korotenko, H. M., Korotenko, L. M. ta in. Tlumachnyi slovnyk z informatyky.

2.   Proidakov E. M., Teplytskyi L. A. (2005). Anhlo-ukrainskyi tlumachnyi slovnyk z obchysliuvalnoi tekhniky, Internetu i prohramuvannia English-Ukrainian explanatory dictionary on computer technology, Internet and programming. Kyiv: VD "SoftPres".

3.   Arnold I. V. (2017). Stylistics of modern English (stylistics of decoding). Study Guide. "Foreign. yaz.". 3rd ed. M.: Education.

4.   Bogachyk M., & Bihunov, D. (2020). The structural-semantic features of computer terms in English: Cognitive studies, Rivne, Article № 2262, 2-10.

5.   Bolotnikova A.P. (2021). Functional and stylistic specificity of translation of scientific and technical text. A.P. Bolotnikova, V.V. Chernyshov, G.M. Talovirya. Transcarpathian philological studies. Issue 17. Vol. 2. 76-80. DOI https://doi.org/10.32782/tps2663-4880/2021.17-2.15

6.   Derkach V. (2021). Specific features of computer discourse: Tauride Academy of the Vernadsky Crimean Federal University. Simferopol, 875-878.

7.   Eliseeva S. V. (2015). Translation and localisation in the field of information technology. Scientific works. Philology. Linguistics, 243, 32-36.

8.   Gaiduk M. (2019). Language Changes in Modern English under Computerisation Impact. In Computer Science and Information Technologies, Fourth International Scientific and Technical Conference, 15–17 October 2009, Lviv, Ukraine.

9.   Jasim Betti M. (2021). Discourse Analysis and Text Linguistics: Department of English, College of Education for Humanities, University of Thi-Qar. Thi-Qar, Publ. 1, 3.

10.   Jones K. S. (2009). How much has information technology contributed to linguistics? In J.T. Coppock (Ed.), Information technology and scholarly

disciplines, Proceedings of a British Academy Symposium (1996). London: The British Academy.

11.	Kalnik O. P., Vorobiova O. S., Symonenko A. V. & Oleshko M. V. (2019). Terminolohichni problemy perekladu naukovykh tekstiv u sferi IT tekhnolohii. Terminological problems of rendering scientific texts in the field of IT technologies. Young Scientist, 5.1 (69.1), 187–190.

12.	Karaban V. I. (2001). Handbook for the translation of English scientific and technical literature into Ukrainian. Part 2. (Terminological and genre-stylistic difficulties). Vinnytsia: Nova Knyha.

13.	Karaban V. I. (2004). Translation of English scientific and technical literature: Grammatical difficulties, lexical, terminological and genre-stylistic problems. Vinnytsia: Nova Knyha.

14.	Khayyal O. (2022). Teaching and Learning Scientific Translation: Problems, Challenges and Solutions. British Journal of Translation, Linguistics and Literature, 2, 39-40.

15.	Kivliuk V. O. (2017). Model of translation of English computer terms into Ukrainian. Educational discourse. Humanities. Issue 1. pp. 145-154.

16.	Kuguy K. (2017). Technical translation challenges: Kyiv National University of Technologies and Design. Kyiv, 1-5.

17.	Kushlyk O. P., Smienova, L. V., (2022). Term-forming capabilities of the Ukrainian equivalents of original computer verb terms. WISDOM, 21 (1), 154–168.

18.	Li Q. (2020). Text-Based Computer-mediated Discourse Analysis: What Causes an Online Group to Become a Virtual Community. International Journal of Social Science Studies, 8, 28.

19.	Maksimov S. E. (2007). Practical course of translation (English and Ukrainian). Theory and practice of translation text analysis: a textbook., 84-87, 141-166.

20. Maksimov S. E. (2007). Practical course of translation (English and Ukrainian). Theory and practice of translation text analysis: a textbook., 84-87, 141-166.

21. Mentynska I. (2014). Lexico-genetic features of modern computer terminology. Bulletin of the National University "Lviv Polytechnic National University. Series "Problems of Ukrainian terminology". № 791. 71-74.

22. Mentynska I. (2018). Modern trends in terminology research (based on computer terminology). Scientific Bulletin of Kherson State University. Series "Linguistics": collection of scientific works. 2018. Issue 31. 33-38.

23. Nzuanke S. (2018). Technology and translation: Areas of convergence and divergence between machine translation and computer-assisted translation. Journal of Languages, Linguistics and Literary Studies (JOLLS), 5, 36-38.

24. Patriarch V. O. (2015). Ways of translating lexical units in the field of computer technology (based on the material of English, German and Ukrainian). Typology of linguistic meanings in diachronic and comparative aspects. Issue 30. 30-35.

25. Shchypachova D. (2018). Peculiarities of scientific and technical translation: National Technical University of Ukraine "Igor Sikorsky Kiev Polytechnic Institute", 32(2), 185-187.

26. Sidenko N. (2016). Lexical problems of translation of modern scientific and technical literature: Scientific conference. Kherson.

27. Slyvka L. (2023). Fundamentals of Translation of Scientific and Technical Literature. Fundamentals of Translation of Scientific and Technical Literature: a textbook. Drohobych: Drohobych Ivan Franko State Pedagogical University, 64.

28. Smienova L. (2021). Leksyko-slovotvirni protsesy v systemi diiesliv-terminiv sfery kompiuternykh tekhnolohii. Lexical and word-formation processes in the system of verb terms in the field of computer technologies. Dysertatsiia kandydata filolohichnykh nauk. Drohobych. 311.

29.   Smienova L. (2021). Terminizatsiia pytomykh diiesliv na poznachennia dii yak mekhanizm popovnennia terminoleksyky sfery kompiuternykh tekhnolohii [Terminologization of the authentic verbs for the designation of action as a mechanism for the development of terminology in the field of computer technologies. Naukovyi visnyk Drohobytskoho derzhavnoho pedahohichnoho universytetu imeni Ivana Franka. Seriia: Filolohichni nauky (movoznavstvo), 15, 174–179.

30.   Smienova L., Kushlyk O. (2022). Term-forming capabilities of the Ukrainian equivalents of original computer verb terms. WISDOM. Vol. 21 (1). P. 154–168.

31.   Stephen P. (2012). C++ Primer Plus (Sams, 2001). Stephen Prata. ISBN-13: 978-0-321-77640-2, 104, 146.

32.   Waheed M., Altohami, A. (2020). Text Messages: A Computer-mediated Discourse Analysis: Prince Sattam Bin Abdulaziz University. Al-Kharj, 11, 80.

LIST OF DATA SOURCES

1. (SOF1:URL)- Stack Overflow. URL

   https://stackoverflow.blog/2022/12/20/best-practices-to-increase-the-speed-for-next-js-apps/

2. (SOF2:URL)- Stack Overflow. URL

   https://stackoverflow.blog/2022/12/20/best-practices-to-increase-the-speed-for-next-js-apps/

3. (SOF3:URL)- Stack Overflow. URL

   https://stackoverflow.blog/2022/12/20/best-practices-to-increase-the-speed-for-next-js-apps/

4. (SOF4:URL)- Stack Overflow. URL

   https://stackoverflow.blog/2022/12/20/best-practices-to-increase-the-speed-for-next-js-apps/

5. (C1:URL)- Coursera. URL

   https://www.coursera.org/articles/it-terms

6. (C2:URL)- Coursera. URL

   https://www.coursera.org/articles/it-terms

7. (N1:URL)- Nielit.URL

   https://www.nielit.gov.in/gorakhpur/sites/default/files/Gorakhpur/OLevel_2_B4_CLang_26Mar_SS.pdf

8. (N2:URL)- Nielit.URL

   https://www.nielit.gov.in/gorakhpur/sites/default/files/Gorakhpur/OLevel_2_B4_CLang_26Mar_SS.pdf

9. (IDF1)- Interaction Design Foundation. URL

   https://www.interaction-design.org/literature/topics/ui-design

10. (GFG1)- Geeks for geeks. URL

    https://www.geeksforgeeks.org/what-is-an-operating-system/

11. (SO1)- Stackoverflow. URL

https://stackoverflow.blog/2020/10/07/qa-with-the-creators-of-next-js-on-version-9-5/

12. (SO2)- Stackoverflow. URL

https://stackoverflow.blog/2020/10/07/qa-with-the-creators-of-next-js-on-version-9-5/

13. (I1)- Investopedia. URL

https://www.investopedia.com/terms/a/artificial-intelligence-ai.asp#:~:text=Artificial%20intelligence%20(AI)%20technology%20allows,to%20achieve%20a%20specific%20goal.

14. (AA1)- AWS Amazon. URL

https://aws.amazon.com/what-is/blockchain/?aws-products-all.sort-by=item.additionalFields.productNameLowercase&aws-products-all.sort-order=asc

15. (AM1)- Azure Microsoft. URL

https://azure.microsoft.com/en-us/resources/cloud-computing-dictionary/what-is-vpn

16. (AM2)- Azure Microsoft. URL

https://azure.microsoft.com/en-us/resources/cloud-computing-dictionary/what-is-vpn

17. (TT1)- TechTarget. URL

https://www.techtarget.com/searchitoperations/news/366558957/Generative-AI-brings-changes-to-cloud-native-platforms?utm_source=google&int=off&pre=off&utm_medium=cpc&utm_term=GAW&utm_content=sy_lp03182024GOOGOTHR_GsidsITOperations_Cyberark_Essential_IO2723

18. (TT2)- TechTarget. URL

https://www.techtarget.com/searchitoperations/news/366558957/Generative-AI-brings-changes-to-cloud-native-platforms?utm_source=google&int=off&pre=off&utm_medium=cpc&utm_term=

GAW&utm_content=sy_lp03182024GOOGOTHR_GsidsITOperations_Cyberark_Essential_IO2723

19. (Q1)- Quora: URL

https://www.quora.com/What-does-a-hard-shutdown-do

20. (C1)- Cisco: URL

https://www.cisco.com/c/en/us/products/switches/what-is-a-lan-local-area-network.html

21. (DG1)- Digital Guardian. URL

https://www.digitalguardian.com/blog/what-data-encryption

22. (C1)- Chekpoint. URL

https://www.checkpoint.com/cyber-hub/network-security/what-is-network-security/

23. (AA1)- AWS Amazon. URL

https://aws.amazon.com/what-is-cloud-computing/

24. (HPE1)-Hewlett Packard Enterprise. URL

https://www.hpe.com/emea_europe/en/what-is/data-storage.html#:~:text=Data%20storage%20refers%20to%20the,being%20ideal%20for%20different%20purposes.

25. (C1)- Cisco. URL

https://www.cisco.com/c/en/us/products/security/firewalls/what-is-a-firewall.html

26. (SW1)- SpiceWorks. URL

https://www.spiceworks.com/tech/tech-general/articles/open-source-software/

27. (N1)- NGINX. URL

https://www.nginx.com/resources/glossary/load-balancing/

28.

29. (MSS1)- Management Sloan School. URL

https://mitsloan.mit.edu/ideas-made-to-matter/machine-learning-explained

30. (CF1)- Cloud Fare. URL

https://www.cloudflare.com/en-gb/learning/bots/how-captchas-work/

31. (I1)- Investopedia. URL

    https://www.investopedia.com/terms/d/datamining.asp#:~:text=Data%20min
    ing%20is%20the%20process,increase%20sales%2C%20and%20decrease%2
    0costs.

32. (CE1)- Columbia Engineering. URL

    https://bootcamp.cvn.columbia.edu/blog/what-is-ux-
    design/#:~:text=User%20experience%20(UX)%20refers%20to,usability%2
    C%20function%2C%20and%20design.

33. (ISO1:URL)- ISO. URL

    https://www.iso.org/artificial-intelligence/deep-learning

34. (T1)- Technopedia. URL

    https://www.techopedia.com/definition/18105/bug-fix

Annex

№	Sentence	Translation	Ways of translation
1	After the hacker attacks	Після хакерських атак	транскрипція
2	I am pleased with the work of our ITservices, which have coordinated and professionally responded to this situation.	Я задоволений роботою наших ІТ-служб, які злагоджено і професійно відреагували на цю ситуацію	семантичний еквівалент
3	Having an effective IT-infrastructure.	Мати ефективну ІТ-інфраструктуру	калькування
4	The current infrastructure of the Secretariat of the Cabinet of Ministers of Ukraine (local area network, domain structure, etc.) has been substantially modernized.	Поточна інфраструктура Секретаріату Кабінету міністрів України (локальна мережа, доменна структура тощо) була суттєво модернізована	семантичний еквівалент
5	Introduced an internal corporate portal for establishing effective work of central executive authorities, updated Government portal	Впроваджено внутрішній корпоративний портал для налагодження ефективної роботи центральних органів виконавчої влади, оновлено Урядовий портал	семантичний еквівалент; транскрипція

6	The girl is actively using IT technology in creating teaching materials for teaching children of preschool and school age.	Дівчина активно використовує ITтехнології у створенні дидактичних матеріалів для навчання дітей дошкільного і шкільного віку	калькування
7	Last February was involved in the project «Ukrainian Network of Bloggers on Disability and HIV / AIDS»	Торік у лютому була залучена до участі в проекті «Українська мережа блогерів з питань інвалідності та ВІЛ/СНІДУ»	семантичний еквівалент; транскрипція
8	In addition, in working with children the girl began to use the visual designer of the Microsoft Kodu Game Lab	Крім цього, в роботі з дітьми дівчина почала використовувати візуальний конструктор Microsoft Kodu Game Lab	семантичний еквівалент; неперекладний термін
9	Cloud technologies	Хмарними технологіями	семантичний еквівалент
10	In Lviv, the first IT education course in Ukraine was presented	У Львові представили перший в Україні виш IT-спрямування	калькування

11	It is a private higher educational institution «Computer Academy STAH», which trains only IT specialists.	Мова йде про приватний вищий освітній заклад «Комп'ютерна академія ШАГ», котрий готує тільки IT-фахівців.	калькування

12	Applicants will be offered the choice for programming programming, network technology and cyber security, graphic design and web-project development	Абітурієнтам пропонуватимуть на вибір для навчання програмування, мережеві технології та кібербезпеку, графічний дизайн і розробку webпроектів	семантичний еквівалент; калькування
13	new for Ukraine and the world's most popular Internet of Things (IoT).	Новий для України і дуже популярний у світі Інтернет речей (IoT).	калькування
14	Teachers of disciplines will be specialists of the practice of leading IT companies of Ukraine.	Викладачами дисциплін стануть спеціалісти-практики провідних IT-компаній України.	калькування
15	a training center specializing in professional IT education	навчальний центр, який спеціалізується на професійній ITосвіті.	калькування

16	International IT forum «IT PEOPLE SUMY» has started in Sumy region.	На Сумщині розпочався міжнародний ІТфорум «IT PEOPLE SUMY».	калькування, неперекладний термін
17	The creation of an IT cluster	Створення ІТкластеру	калькування
18	The lack of uniform rules for access to infrastructure is a major obstacle to the development of broadband access to the Internet and mobile 3G, Danchenko emphasized.	Відсутність єдиних правил доступу до інфраструктури – це головна завада, яка гальмує розвиток широкосмугового доступу в інтернет і мобільного 3G, підкреслив Данченко.	калькування
19	Now telecom providers need to separately negotiate with owners of power lines or house sewers to lay their cables.	Зараз телекомпровайдерам щоб прокладати свої кабелі, потрібно окремо домовлятися з власниками ліній електропередач або будинкових каналізацій	транскрипція

| 20 | This normative act is needed for the reform of the legislation in the field of electronic digital signature (EDS), indicated by its authors | Цей нормативний акт потрібен для реформування законодавства у галузі електронного цифрового підпису (ЕЦП), вказали його автори | семантичний еквівалент |

21	The whole world works in the clouds	Весь світ у хмарах працює	семантичний еквівалент
22	In his opinion, the new law will allow the development of a promising cloud market	На його думку, новий закон дозволить розвивати перспективний хмарний ринок	семантичний еквівалент
23	IT companies	IT-компанії	калькування
24	This law will allow the introduction of separate provisions of the strategy on cyber security, which was signed by the president, as well as protect the objects of critical infrastructure	Цей закон дозволить запровадити окремі положення стратегії з кібербезпеки, яку підписав президент, а також захищати об'єкти критичної інфраструктури	калькувння
25	As a result, this law will lead to the revival of the	У підсумку цей закон приведе до	калькування

	Ukrainian market for the production of media products, and this is especially good for the viewer.	Пожвавлення українського ринку виробництва медіатоварів, і це насамперед добре для глядача	
26	The total number of Ukrainian content in our broadcasters will grow	В цілому кількість українського контенту в наших мовниках зростатиме	транскрипція

27	Google added a new SOS Alerts (SOS Notification) feature to its search engine and Google Maps	Компанія Google додала нову функцію SOS Alerts («SOS-сповіщення») для свого пошуковика та Google Maps	неперекладні терміни; калькування
28	Microsoft has acknowledged Paint as a graphical editor out of date and plans to remove it from the Windows operating system	Корпорація Microsoft визнала графічний редактор Paint застарілим і планує прибрати його з операційної системи Windows.	неперекладні терміни; семантичний відповідник
29	Washington hosted the first World Robotics Olympiad with pupils from 160 countries around the world	Днями у Вашингтоні пройшла перша всесвітня олімпіада з робототехніки за участі школярів зі 160 країн світу	калькування
30	«It's natural, because the main employer of the market are outsourcing companies that are constantly interested in new employees,» explains HeadHunter.	«Це закономірно, адже головний роботодавець ринку – аутсорсингові компанії, які постійно зацікавлені в нових співробітниках, – пояснюють в HeadHunter	транскрипція
31	Just and equitable treatment	Справедливе ставлення	опущення

32	Users can download the mobile app in the App Store on their Apple iOSbased smartphones and tablets.	Завантажити мобільний додаток користувачі можуть у App Store на своїх смартфонах та планшетах на базі операційної системи iOS Apple.	неперекладні терміни
33	Externally, the new glasses reminiscent of the original model with a small transparent display and a built-in camera.	Зовні нові окуляри нагадують оригінальну модель з невеликим прозорим дисплеєм і вбудованою камерою.	транскрипція
34	Compared to the previous version, the updated will have a more powerful processor, the camera will not be 5, as in previous glasses, and 8 megapixels	У порівнянні з минулою версією оновлена матиме потужніший процесор, камера буде не на 5, як в попередніх окулярах, а на 8 мегапікселів	транскрипція
35	The battery charge lasts for 8 hours in normal operation, not including video streaming	Зарядки акумулятора вистачає на 8 годин роботи в звичайному режимі, не	транскрипція

		включаючи відео-стрімінга	
36	The team of the NGO «Institute for a Successful City» launched an online map of Ukrainian public spaces «UrbanProstir»	Команда громадської організації «Інститут успішного міста» запустила онлайнмапу публічних просторів України »УрбанПростір»	калькування; транскрипція
37	It contained a large number of innovations, including Cortana Assistant, interface	Воно містило велику кількість нововведень, в тому числі помічника Cortana, оновлень інтерфейсу	неперекладний термін; транскрипція

38	Peak	ПІК	транскрибування
39	John McCain, chair of the Senate Committee on Armed Forces, scheduled a cyberthreat hearing Thursday, focusing on hacker interference	Голова Комітету з питань збройних сил Сенату Джон Маккейн призначив на четвер слухання по кібер-загрозам, де в центрі уваги буде проблема хакерського втручання	калькування; семантичний еквівалент

40	In addition, the OS contains new emoticons and can use passwords stored in Google Chrome	Крім того, ОС містить нові смайли і зможе використовувати у собі збережені в Google Chrome паролі	семантичний еквівалент; транскрипція; неперекладні терміни
41	Among the innovations is an indicator of unread messages that will appear on the application icons.	Серед нововведень - індикатор непрочитаних повідомлень, який буде з'являтися на іконках додатків.	транскрипція; семантичний еквівалент
42	Hotfix package	Виправлення	Функціональний аналог
43	Rescue online	Порятунок в режимі «онлайн»	транскрипція
44	How to prevent the emergence of copyright material on a pirate resource?	Як запобігти появі авторського матеріалу на піратському ресурсі?	семантичний еквівалент
45	On the conditions of outsourcing to fulfill the tasks of cyber defense of state electronic information resources.	На умовах аутсорсингу до виконання завдань кіберзахисту державних електронних інформаційних ресурсів.	калькування; семантичний еквівалент

46	Native mode	Режим роботи у власній системі команд	Описовий переклад
47	To strengthen the requirements for the identification of Internet merchants and service providers	Посилить вимоги ідентифікації інтернет-торговців і надавачів послуг	калькування
48	In social networks and the Internet Association of Ukraine, the initiative immediately caused a flurry of indignation by such radical means.	У соціальних мережах та в інтернет-асоціації України ініціатива одразу викликала шквал обурення такими радикальними засобами	семантичний еквівалент
49	For what it is necessary to fight on media barricades	За що треба битися на медіабарикадах	транскрипція
50	Profile	Профіль	транскодування