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TERM PAPER

IN TRANSLATION STUDIES

Peculiarities of translation of IT neologisms (based on popular science literature)

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КУРСОВА РОБОТА

З ПЕРЕКЛАДУ

**ОСОБЛИВОСТІ ПЕРЕКЛАДУ
НЕОЛОГІЗМІВ СФЕРИ ІТ (НА МАТЕРІАЛІ НАУКОВО-ПОПУЛЯРНОЇ
ЛІТЕРАТУРИ)**

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Викладач
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Київ – 2023

Київський національний лінгвістичний університет
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мови

Завідувач кафедри теорії і
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ЗАВДАННЯ
на курсову роботу з перекладу з англійської мови
для студентів IV курсу

студента_____IV_____курсу_____Па 01-19_____групи, факультету перекладознавства КНЛУ
спеціальності **035 Філологія**, спеціалізації **035.041 Германські мови та літератури (переклад включно), перша – англійська**, освітньо-професійної програми **Англійська мова і друга іноземна мова: усний і письмовий переклад**
Тема роботи___Особливості перекладу неологізмів сфери ІТ (на матеріалі науково-популярної літератури)_____
Науковий керівник_____викладач, Іваненко Катерина Василівна_____
Дата видачі завдання_____29 вересня 2022 року_____

Графік виконання курсової роботи з перекладу

№ п/п	Найменування частин та план курсової роботи	Терміни звіту про виконання	Відмітка про виконання
1.	Аналіз наукових першоджерел і написання **теоретичної частини** курсової роботи **(розділ 1)**	1–5 листопада 2022 р.	
2.	Аналіз дискурсу, який досліджується, на матеріалі фрагмента тексту; проведення перекладацького аналізу матеріалу дослідження і написання **практичної частини** курсової роботи **(розділ 2)**	7–11 лютого 2023 р.	
3.	Написання **вступу і висновків** дослідження, оформлення курсової роботи і подача завершеної курсової роботи науковому керівнику для попереднього перегляду	28–31 березня 2023 р.	
4.	**Оцінювання** курсових робіт **науковими керівниками**, підготовка студентами презентацій до захисту курсової роботи	25–30 квітня 2023 р.	
5.	**Захист** курсової роботи (за розкладом деканату)	2-13 травня 2023 р.	

Науковий керівник _____(підпис)

Студент_____(підпис)

**РЕЦЕНЗІЯ НА КУРСОВУ РОБОТУ
З ПЕРЕКЛАДУ З АНГЛІЙСЬКОЇ МОВИ**

студента____IV_____курсу групи_Па 01-19___факультету германської філології і перекладу КНЛУ спеціальності **035 Філологія, спеціалізації 035.041 Германські мови та літератури (переклад включно), перша – англійська**, освітньо-професійної програми **Англійська мова і друга іноземна мова: усний і письмовий переклад**
_____Олесневича Юрія Петровича___ (ПІБ студента)
за темою_____Особливості перекладу неологізмів сфери ІТ (на матеріалі науково-популярної літератури)_____

	Критерії	Оцінка в балах
1.	Наявність основних компонентів структури роботи — *загалом 5 балів* (усі компоненти присутні – 5, один або декілька компонентів відсутні – **0**)	
2.	Відповідність оформлення роботи, посилань і списку використаних джерел нормативним вимогам до курсової роботи — *загалом 10 балів* (повна відповідність – **10**, незначні помилки в оформленні – **8**, значні помилки в оформленні – **4**, оформлення переважно невірне – **0**)	
3.	Відповідність побудови вступу нормативним вимогам — *загалом 10 балів* (повна відповідність – **10**, відповідність неповна – **8**, відповідність часткова – **4**, не відповідає вимогам – **0**)	
4.	Відповідність огляду наукової літератури нормативним вимогам — *загалом 15 балів* (повна відповідність – **15**, відповідність неповна – **10**, відповідність часткова – **5**, не відповідає вимогам – **0**)	
5.	Відповідність практичної частини дослідження нормативним вимогам — *загалом 20 балів* (повна відповідність – **20**, відповідність неповна – **15**, відповідність часткова – **10**, не відповідає вимогам – **0**)	
6.	Відповідність висновків результатам теоретичної та практичної складових дослідження — *загалом 10 балів* (повна відповідність – **10**, відповідність неповна – **8**, відповідність часткова – **4**, не відповідає вимогам – **0**)	

Усього набрано балів:_____

Оцінка:

«До захисту»   _____   _____
                    (42-70 балів)   *(підпис керівника)*

«На доопрацювання» _____   _____
                    (0-41 балів)   *(підпис керівника)*

”____”_____2022 р.

CONTENTS

INTRODUCTION

In the world of the IT industry, new technologies, products and concepts are constantly appearing, which are becoming an integral part of modern life. The IT industry differs from other industries in that new terms and concepts that require translation appear almost every day. IT neologisms, meaning new words, terms and concepts in the field of IT, are a difficult task for translators, as they may be relatively new and have no exact equivalent in other languages. Even if such an equivalent exists, it may not meet the terminology standards of the language in question, which may lead to a misunderstanding of the text.

The **topicality** of the study is determined by the number and speed of changes in the field of information technology and computer science. In today's world, where the use of technology and the speed of information transfer is becoming increasingly important, language translation is necessary to ensure effective communication between people from different countries and cultures.

The **aim** of the work is to describe the peculiarities of the translation of IT terms from English to Ukrainian and to identify the difficulties that may arise when translating such words.

To achieve the aim, the following **tasks** must be completed:

1. Analyze the theoretical basis of the topic of the work.

2. To analyze the information technology vocabulary of the English language used in popular scientific literature, and to determine the main terms and other neologisms that need to be translated into Ukrainian.

3. To study the peculiarities of the functioning of terms and other neologisms in the context of the IT sphere, in particular their meaning and specificity of use, as well as the terminological system.

4. To study the peculiarities of the translation of information technology terms and other neologisms from the English language into the Ukrainian language, to determine the problems and difficulties that arise during the translation.

The **object** of the coursework is IT neologisms in popular scientific literature.

The **subject** of the coursework is the peculiarities of the translation of IT neologisms based on the material of popular scientific literature.

XX neologisms, selected by the continuous sampling method from popular scientific literature, became the **data sources**.

The following **methods** were used to achieve the goal and objectives of the research: the method of analysis and synthesis, descriptive translation, the method of continuous sampling, the method of discursive analysis, and the statistical method.

The **theoretical value** of the research lies in the fact that it allows to generalize theoretical knowledge on the topic of translation of IT terms, and to investigate in more detail the problems associated with the translation of such terms into the target language. The course work allows you to consider the peculiarities and nuances of the translation of IT neologisms, to find out the main problems that arise in the process of translating these terms, as well as to analyze the methods and strategies used in the translation of such lexemes.

The **practical value** of the research is that the results of the research can be used in preparation for lectures and seminars on the theory and practice of translation, as well as for continuing the research of this problem.

The research logic determined the research **structure**. The term paper consists of an introduction, two chapters, conclusions and bibliography. The total volume is 66 pages.

In the first chapter, the concept of neologism and theoretical approaches to the translation of neologisms, in particular in the IT field, were considered. The peculiarities of the analysis of scientific discourse texts were also described, in particular in relation to IT neologisms.

The second chapter analyzed the translation options of IT neologisms, which involve the replacement of lexical units, as well as the change of grammatical form and lexical-grammatical transformations in the translation of IT neologisms in popular science literature.

CHAPTER 1 NEOLOGISM AS A LANGUAGE PHENOMENON AND TRANSLATION CHALLENGE

1.1. The notion of neologism in linguistics

The study of neologisms is an important area of research in linguistics, as it provides insights into the processes of language change and development, as well as the relationship between language and society. In this subsection, we will explore the notion of neologism in linguistics, including its definition, types, and functions. We will also discuss the challenges that arise in the study and translation of neologisms, particularly in the field of information technology (IT) where new terms are coined regularly.

In the field of science, neologisms are an integral part of the lexical structure of the language. They arise due to the rapid development of science and technology, which leads to the creation of new terms and concepts. These new lexical units have a clear scientific interpretation and are important components of specialized vocabulary. Neologisms in the field of science are an important means of expressing new technical processes and research methods, which allows you to convey information accurately and unambiguously. This allows for the correct perception and understanding of information, and also contributes to the development of science and technology. Not all neologisms that arise in the field of science are fixed in the language on a permanent basis, but some of them can become universal terms used in various fields of science and technology [9, p. 271].

P. Newmark defines neologisms as newly created words or existing words that acquire a new meaning. In his definition, neologisms can be considered as a subset of the lexicon of a language. They are the result of social, cultural, and technological changes, and they reflect the evolving needs of language users. According to him, neologisms can take different forms and can have different origins. They can be created by borrowing words from other languages, by combining existing words, by changing the spelling or pronunciation of existing words, or by using existing words in new

ways. P. Newmark also emphasizes that neologisms are not always universally accepted, and their use may be limited to specific contexts or groups of people. Some neologisms may become widely used and enter the mainstream vocabulary of a language, while others may remain obscure or fall out of use quickly [22, p. 140].

According to S. G. Volkova, neologisms are newly created words or phrases that have not yet been widely used in the language [3, p. 113].

Neologisms in the field of science are words or expressions that are used to denote a new or already existing concept in a new meaning. Neologisms arise on the basis of scientific achievements and technical progress. The classification of neologisms depending on the method of creation includes the following types: phonological (formed from separate sounds), borrowing (created using words or expressions of other languages), semantic (created by changing the meaning of a word), syntactic (created by changing the syntactic structure of a sentence) [9, p. 273].

The following definitions of neologism are provided in the dictionaries of the English language:

1. Merriam-Webster Dictionary: "a new word, usage, or expression" [33]

2. Oxford English Dictionary: "a newly coined word or expression, or a new meaning for an existing word" [34]

3. Cambridge Dictionary: "a new word or expression, or a new meaning for an existing word" [30]

4. Collins English Dictionary: "a newly coined word or phrase, or a word or phrase with a new meaning" [31]

5. Macmillan Dictionary: "a new word or expression, or a new meaning for an existing word" [32]

The notion of neologism in linguistics refers to a new word or phrase that has been recently created and introduced into a language. Neologisms can be formed through various means such as compounding, derivation, borrowing, blending, or abbreviation. They often emerge as a result of social and cultural changes, scientific and technological advancements, and the need to express new concepts or ideas [23].

The study of neologisms is an important area of research in linguistics, as it provides insights into the evolution of language and the way in which new words are created and integrated into the lexicon. The analysis of neologisms involves examining their form, meaning, and usage in different contexts [13].

According to O.P. Kovalchuk, neologisms can be defined as new words or new forms of word usage that appear in the language in connection with the development of society, science, technology and culture. Neologisms can be classified into various categories based on their origin, function, and usage. For instance, some neologisms are technical terms used in specialized fields such as science, medicine, or technology, while others are slang expressions used in informal contexts. Some neologisms are created intentionally, while others emerge spontaneously through language contact or cultural exchange [6, p. 75-76].

There are some characteristics of neologisms in English:

1. Newly coined words or phrases. Neologisms are words or phrases that have been newly created, often to describe a new concept, technology or social trend [14, p. 190].

2. Context-specific. Neologisms may only be used within a particular context or group, and may not be widely known or understood [7, p. 204].

3. Unfamiliarity. Due to their novelty, neologisms may not be familiar to many people and may require explanation or context to understand [24, p. 116].

4. Creativity. Neologisms are often created by combining or altering existing words or phrases, demonstrating creativity and innovation in language use [24, p. 116].

5. Rapidly evolving. Neologisms are a reflection of the ever-changing nature of language, and as such, they can quickly become outdated or replaced by new terms [16].

6. Controversial. Some neologisms may be controversial or even considered offensive, particularly if they relate to sensitive or divisive issues [12, p. 92].

Overall, neologisms are an important part of the evolution of language, reflecting new concepts, ideas and cultural shifts.

Neologisms are newly created words or phrases that have not yet been widely used in the language. Depending on the method of creation and the characteristics of the linguistic form, neologisms can be classified into the following types [3, p. 113-114]:

1. Morphological neologisms are words that are created by adding prefixes, suffixes or other morphemes to existing words. For example, "rephotograph", "retransmit", "reinstall".

2. Converted neologisms are words that arise by changing the inflection or part of the language of an existing word. For example, "reassign", "resell".

3. Abbreviations are abbreviations of words or phrases using letters or folds of words. For example, "PIN" (personal identification number), "DVD" (digital versatile disc), "WiFi" (wireless fidelity).

4. Phonological neologisms are words that are created by changing the sound of words, by changing letters or syllables. One example of a phonological neologism in the English language is the word "googling", which means searching for information on the Internet using the "Google" search engine. This word arose by changing the sound of the word "Google", adding the suffix "-ing" to it and turning it into a verb.

5. Semantic borrowings are words that are borrowed from other languages and receive a new meaning or use. For example, "schadenfreude". This word comes from the German language and means the pleasure or joy that one feels from another person's misfortune, disagreement or misfortune. The word is commonly used to describe bad behavior or bad feelings and can be used in both academic and everyday speech.

6. Syntactic neologisms are new ways of using words or phrases in the language. One example of a syntactic neologism in the English language is the phrase "ghost kitchen", which means a culinary kitchen that operates solely for the purpose of delivering food and does not have direct contact with customers. This new use of the word "ghost" in combination with "kitchen" creates a new phrase that has a specific meaning in the context of the development of the gastronomic industry.

O. P. Kovalchuk singles out the following groups of neologisms [6, p. 75-77]:

1. Neologisms are new words that did not exist in the language before and have no counterparts in other languages. Their creation is connected with the needs of modern life, the development of science, technology and technology.

2. Transnomination is the transfer of a word from one sphere to another. For example, the word "plagiarism" was first used in the academic environment, but then began to be used in other areas, for example, in art and literature.

3. Semantic innovation is a change in the meaning of a word or the creation of a new meaning for an already existing word. For example, the word "key" originally meant "small door", but over time changed its meaning to "keyboard button".

The study of neologisms is particularly relevant in today's fast-paced world, where new words and phrases are constantly being coined and introduced into languages. This is especially true in the field of information technology, where new terms and concepts are being developed at a rapid pace. As a result, the translation of neologisms in popular science literature has become an increasingly important task for translators and requires a deep understanding of both the source and target languages.

1.2. Theoretical background of translating IT neologisms in popular science literature

The translation of IT neologisms in popular science literature requires a solid theoretical background in both translation studies and information technology. Translation of neologisms in popular science literature poses a challenge for translators, especially when it comes to IT terminology.

One theoretical framework that can be applied to the translation of IT neologisms is functionalism. This theory emphasizes the importance of understanding the communicative purpose of the text and adapting the translation to suit the target audience. This means that the translator must consider the level of technical knowledge and familiarity with IT terminology of the intended readership and choose appropriate translations for neologisms based on this knowledge [26, p. 13].

Another theoretical approach that can be applied to the translation of IT neologisms is skopos theory. This theory emphasizes the importance of the purpose of the translation and the target audience, rather than adhering strictly to the source text. According to skopos theory, the translator should aim to produce a translation that achieves the same communicative function as the source text in the target language, even if the translation deviates from the original text [11, p. 156].

Neologisms are among the most difficult to translate lexical units, because they often have a specific meaning that reflects new phenomena, processes, technologies, objects and ideas. There are several methods for translating neologisms, including [1, p. 322-323]:

1. Transcription is the transfer of the sound structure of a word from one language to another language, observing the phonetic features of this language. For example, the neologism "big data" (from English "big data") can be transcribed as "big data".

2. Transliteration is the transfer of the written representation of words from one language to another. For example, the neologism "blogger" can be transliterated as "blogger".

3. Calculating is the creation of a new word in the adapter language based on a lexeme of the source language. This method helps to preserve the meaning and structure of the original word.

When translating neologisms, it is necessary to take into account the semantic and stylistic features of the source word, as well as the context of use. In addition, it is often necessary to find similar words in the adapter language, which can be quite difficult, especially if the neologism is quite new and does not yet have an established standard translation [28, p. 62].

The use of translation strategies is important in translating IT neologisms in popular science literature. One approach to translating IT neologisms is through lexical transformations. This includes practices like practical transcription, transliteration, traditional reproduction, and loan translation, which involve transforming words from one language into another in a formal, often phonetic, way [5, p. 40-42]:

Another approach is through lexical and semantic transformations, such as [18, p. 143]:

1. Transposition. This involves changing the order of words or phrases in the text to better suit the target language's grammar and syntax.

2. Replacement. This involves replacing words or phrases from the original text with equivalent expressions in the target language.

3. Addition. This involves adding words or phrases to the text to ensure that the meaning is clear and accurate in the target language.

4. Omission. This involves leaving out words or phrases from the original text where they are not needed or where they would be confusing in the target language.

Lexical-semantic transformations involves broader changes to the meaning of words in the text, including generalization, differentiation, substantiation, and modulation. These transformations can help to ensure that the translated text accurately reflects the meaning of the original while also being understandable to readers in the target language [18, p. 143-144].

In addition, translators need to use grammatical transformations such as [18, p. 144]:

1. Antonymic translation. This involves translating words or phrases in the text with their opposite or contrasting meanings in the target language.

2. Total reorganization. This involves restructuring the text in a way that is more suitable for the target language, such as changing the order of paragraphs or sections.

3. Compensation. This involves making changes to the text to account for differences between the languages, such as adding extra words to convey meaning that is implicit in the original text.

4. Transformations of idioms in translation. This involves translating idiomatic expressions from the original text into equivalent expressions in the target language, which may involve changes in grammar, syntax, or vocabulary.

When translating neologisms, it is important to take into account their classification and peculiarities of formation. For example, for the translation of

neolexes, borrowing or tracing strategies should be used, and for neophrases - tracing or translation by content. It should also be taken into account that neologisms can have different forms of presentation in different languages, for example, transcription, transliteration or tracing [4].

In some cases, the use of certain translation methods may depend on the context and specifics of the text. For example, in technical text, the term will be more suitable, and in advertising or promotional material – an adapted version that is more attractive to the target audience [10, p. 8].

Neologisms in the sphere of the Internet and information and communication technologies (IT) are neologisms that appear in the language as a result of the rapid development of IT and their impact on society. They are a necessary element of a language that reflects the modern development of technologies and changes in the socio-cultural sphere [2].

There are many ways to select a translation for IT neologisms. The most common of them are [2]:

1. Tracing is a direct translation of neologisms from another language while preserving their sound and graphic image. Examples: електронна пошта – email, веб-сайт – website, хештег – hashtag.

2. Borrowing is the borrowing of neologisms from other languages that have already proven themselves in this field. Examples: selfie – селфі, internet – інтернет, blog – блог.

3. Neutralization is the replacement of neologisms with commonly used words or expressions that accurately convey their meaning. Examples: online store – інтернет-магазин, webcam – відеокамера.

4. A combination is the creation of a new word by combining two or more words that convey its meaning. Examples: електронна комерція – e-commerce, програмне забезпечення – software, мережа соціальних зв'язків – social network.

In conclusion, the translation of IT neologisms in popular science literature requires a comprehensive understanding of both the source and target languages and their respective cultures. The translator needs to be familiar with the specific

characteristics of contemporary scientific discourse and have a good knowledge of the lexical, grammatical, and semantic transformations that can be applied in the translation process. The selection of appropriate translation strategies for IT neologisms in popular science literature depends on the context and the intended audience of the target text. It is important for the translator to consider the target readership and to ensure that the translation is accurate, natural, and easy to understand.

1.3. Specifics of contemporary scientific discourse text analysis

Scientific discourse is characterized by a specific structure and style that differ from those of other types of discourse. Therefore, analyzing scientific texts requires special skills and approaches. In contemporary scientific discourse, there are several specific features that need to be taken into account when conducting text analysis [19, p. 61-62].

1.   Formal language and structure. Scientific discourse is often characterized by its formal language and structure, which are designed to convey information in a clear and concise manner. The structure of a scientific text usually follows a specific pattern, such as introduction, methodology, results, and discussion. This structure helps to organize the information and present it in a logical and coherent way. In addition, scientific language often contains specialized terminology and jargon that is specific to a particular field [29, p. 948].

2.   Objectivity and accuracy. Scientific discourse aims to present information in an objective and accurate way. This means that scientific texts should be free from personal biases, opinions, and emotions. Instead, they should rely on empirical evidence and logical reasoning to support their arguments [17, p. 8].

3.   Citations and referencing. Scientific discourse relies heavily on citations and referencing to support its claims and provide evidence. This means that scientific texts often contain numerous references to other research studies, theories, and concepts. It is important to analyze these references in order to understand the context of the research and how it fits into the broader field [27, p. 159].

4.   Complexity and density. Scientific discourse can be highly complex and dense, requiring a high level of knowledge and expertise in the relevant field to understand it fully. Therefore, text analysis of scientific discourse requires not only linguistic analysis but also an understanding of the specific field and its related concepts [15, p. 368-369].

5.   Multimodality. Contemporary scientific discourse often includes various modes of communication, such as text, images, tables, and graphs. Analyzing scientific discourse therefore requires an understanding of these different modes and how they work together to convey information [20, p. 4].

6.   Interdisciplinarity. Contemporary scientific discourse often involves interdisciplinary research, where researchers from different fields collaborate to address complex problems. This means that scientific texts may contain terminology and concepts from multiple fields, making it important to have a broad knowledge base when analyzing them [25, p. 83].

In addition to specialized terminology, scientific texts may also include neologisms, acronyms, and abbreviations. Neologisms are newly created words or phrases that may not be found in standard dictionaries but are commonly used within a particular scientific field. Acronyms and abbreviations, on the other hand, are shortened forms of words or phrases used to make writing more efficient and concise. However, excessive use of these abbreviations can make the text difficult to understand for non-experts [21, p. 150, 152].

In conclusion, analyzing contemporary scientific discourse requires a specific set of skills and approaches that take into account its formal language and structure, objectivity and accuracy, citations and referencing, complexity and density, multimodality, and interdisciplinarity. Researchers need to be able to understand and navigate these features in order to conduct effective text analysis of scientific discourse.

In this part of our research we will provide the stylistic and discourse analysis of the text which belongs to scientific discourse. It is an extract from the doctoral dissertation in Computer Science [4, p. 4-5].
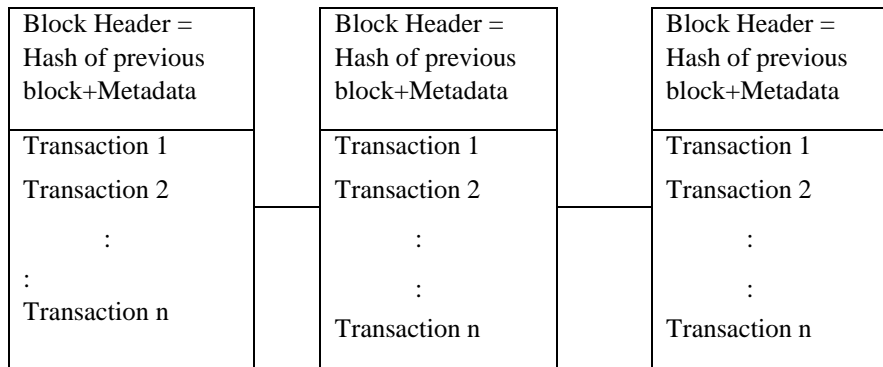
Block Header = Hash of previous block+Metadata	Block Header = Hash of previous block+Metadata	Block Header = Hash of previous block+Metadata
Transaction 1 Transaction 2 : : Transaction n	Transaction 1 Transaction 2 : : Transaction n	Transaction 1 Transaction 2 : : Transaction n

Figure 1.1: A basic blockchain structure

Blockchain, in simple terms, as the name suggests is a series of blocks (containing data) in which blocks are linked to each other via cryptographic functions forming a strong chain. This helps it to record transactions through a secure and verifiable process without any intermediary [Deshpande et al. 2018]. In most cases, it is only the hash of the previous block which is included in the current block while its formation. Blockchain as a concept is nearly 3 decades old. The first implementation of blockchain concept was presented in 1990 by Haber et al in their work titled "How to timestamp a document" [Haber & Stornetta 1990]. However, blockchain was brought to prominence in 2008 by Bitcoin [Nakamoto et al. 2008], the first cryptocurrency implementation based on blockchain. Since then, the economics of blockchaincryptocurrency have scaled up with the estimated combined market cap of $175 Billion [CoinMarketCap 2018] (April 2019).

In its simplest form, a block in the blockchain contains data segregated in multiple small entities called as transactions, a hash of the previous block. The structure is explained in Figure 1.1. Blockchain is based on Distributed Ledger Technology and achieves immutability by securely storing ledger copies on all the participating nodes. The coherency is achieved through different consensus algorithms (consensus based on Proof of Work (PoW), Proof of Stake (PoS), etc.). The participating nodes form the Peer to Peer (P2P) network and a communication protocol is implemented among them to carry out information dissemination.

Blockchain classification is explained in [Deshpande et al. 2019c]. Blockchain can be divided into many types depending on various parameters like permissions, application domain, protocols, etc. Based on permissions, Blockchain can be classified into two main categories i.e. permissioned and non-permissioned. In a permissioned blockchain, prerequisite permissions are needed to connect/read/write on the blockchain while with non-permissioned, no explicit permissions are needed. The classification flow in Figure 1.2 explains in detail about various nomenclature surrounding this classification axis.
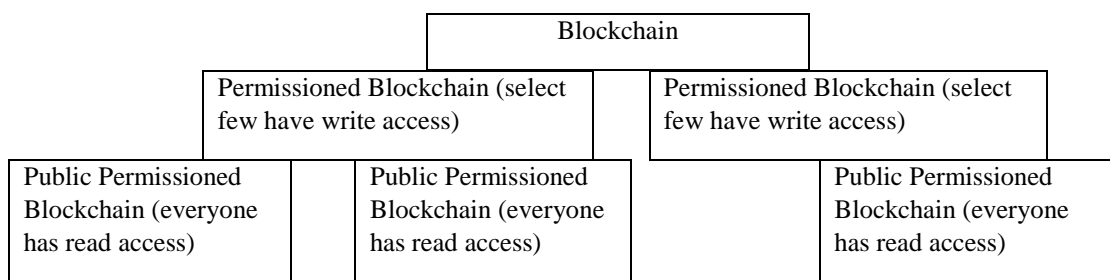
```
                        ┌─────────────────┐
                        │   Blockchain    │
                        └─────────────────┘
        ┌───────────────────────────┐  ┌───────────────────────────┐
        │ Permissioned Blockchain   │  │ Permissioned Blockchain   │
        │ (select few have write    │  │ (select few have write    │
        │ access)                   │  │ access)                   │
        └───────────────────────────┘  └───────────────────────────┘
  ┌──────────────────┐  ┌──────────────────┐      ┌──────────────────┐
  │ Public           │  │ Public           │      │ Public           │
  │ Permissioned     │  │ Permissioned     │      │ Permissioned     │
  │ Blockchain       │  │ Blockchain       │      │ Blockchain       │
  │ (everyone has    │  │ (everyone has    │      │ (everyone has    │
  │ read access)     │  │ read access)     │      │ read access)     │
  └──────────────────┘  └──────────────────┘      └──────────────────┘
```

Figure 1.2: Blockchain classification based on permissions

The two major categories of blockchain based on application domains are 1) Transaction Optimized Blockchains and 2) Code Optimized Blockchains. Transaction Optimized Blockchains are mainly used for the transfer of assets and to some extent for data storage while code optimized blockchains are mainly used for the execution of code on the blockchain. The overhead of code optimized blockchain is generally higher than transaction optimized blockchain because of the fact that there are additional virtual machines running on each participating node for the execution of code and also there are additional messages for sharing the current state of variables.

Discourse parameters of the text:

Establishing extralingual factors that determine the type of discourse the text belongs to: The text contains a diagram (Figure 1.1) that explains the basic structure of a blockchain. It also includes another diagram (Figure 1.2) that classifies the blockchain based on different parameters. The use of diagrams and technical terms

related to blockchain technology indicates that the text belongs to the discourse of scientific or technical writing.

Determining the type of discourse the text belongs to: The text belongs to the discourse of scientific or technical writing. It explains the concept of blockchain technology, its structure, and different types of blockchain classification based on various parameters like permissions, application domain, and protocols. The text also includes references to scholarly articles that support its claims.

The text cites several sources to support its claims and arguments. The sources are presented in the form of references and are used to provide evidence for the claims made in the text. For instance, the text cites Deshpande et al. (2018) to explain how blockchain can record transactions in a secure and verifiable way without intermediaries. It also cites Haber and Stornetta (1990) to provide historical background on the development of blockchain technology.

Also, the text follows a logical structure and presents information in a systematic way. It starts with a definition of blockchain and its basic structure, then explains how blockchain achieves security and immutability through distributed ledger technology and consensus algorithms. It also presents a classification of blockchain based on various parameters such as permissions, application domains, and protocols. The classification is supported by a figure (Figure 1.2) that provides a visual representation of the different types of blockchain.

The text presents technical information in a concise and clear manner, using primarily formal language and specialized terminology. The style of the text is predominantly informative and explanatory, and the author uses a variety of stylistic devices and literary techniques to convey the concepts more effectively.

The text uses various technical terms related to blockchain technology, such as "cryptographic functions," "hash," "Distributed Ledger Technology," "consensus algorithms," and "Peer to Peer (P2P) network," which help to establish the authority and credibility of the author.

Metaphors and similes are not used in the text. However, the author uses several epithets and idioms, such as "secure and verifiable process," "immutability,"

"consensus-based," and "transaction optimized" to emphasize the important features of blockchain technology.

The author employs a few cases of metonymy, such as "hash of the previous block" and "ledger copies," to avoid repetition and make the text more concise. The use of irony, hyperbole, litotes, zeugma, pun, and oxymoron is absent in the text.

It uses a specialized and technical vocabulary that is specific to the subject field. The author employs proper names such as "Bitcoin," "Haber," "Stornetta," and "CoinMarketCap" to establish credibility and authority. The text also uses subject field terms such as "transaction," "block," "consensus," "permissioned," and "non-permissioned," which are technical terms specific to the field of blockchain technology.

The text also employs neologisms such as "transaction optimized" and "code optimized," which are newly coined terms that reflect the current trends and developments in the field. The text does not contain obsolete words, barbarisms, internationalisms, acronyms, items of the national lexicon, buzzwords, weasel words, textspeak items, items of slang, jargon, dialectal or vulgar words.

In conclusion, the text uses a formal and technical style, employing specialized terminology and subject field terms to convey the concepts more effectively. The author employs epithets, idioms, and metonymy to emphasize important features of blockchain technology. The text uses neologisms to reflect the current trends and developments in the field. The text is devoid of literary techniques such as metaphors, similes, irony, hyperbole, litotes, zeugma, pun, and oxymoron.

CHAPTER 2 IT NEOLOGISMS IN SCIENCE POPULAR TEXTS: DISCOURSE FEATURES, TRANSLATION OPTIONS

2.1. Lexical transformations in the translation of IT neologisms in popular science literature

The rapid development of information technology has resulted in the creation of numerous neologisms, or newly-coined words and phrases, that are often specific to the field of IT. As these neologisms become more widely used, there is a growing need for accurate translations of these terms into other languages, particularly in the context of popular science literature.

Lexical transformations are an important aspect of the translation process that involves making decisions about how to best convey the meaning of IT neologisms in the target language. In this subsection, we will explore various lexical transformations that can be used to effectively translate IT neologisms in popular science literature.

*However, there is an additional need for traceability of data and its origin which is not natively supported by **blockchain** or distributed database [4, p .2].*

*Однак існує додаткова потреба в відстежуваності даних та їх походження, яка не підтримується **блокчейном** або розподіленою базою даних.*

The translation transformation used here is transliteration, which involves converting the original text written in one language to another language using the same or similar sounds of the letters. In this case, the neologism "blockchain" is transliterated into Ukrainian script as "блокчейном."

Overall, the translation uses a combination of transliteration and translation techniques to convey the original meaning of the sentence in a way that makes sense in the target language.

*In its simplest form, a block in the blockchain contains data segregated in multiple small entities called as transactions, a **hash** of the previous block [4, p .3].*

*У своїй найпростішій формі блок у блокчейні містить дані, розділені на кілька блоків, які називаються транзакціями, **хеш** попереднього блоку.*

The translation transformation used here is transcription, where the neologism "hash" is transliterated as "хеш". This transformation involves representing the sounds of the original word using the corresponding symbols in the target language's writing system.

Overall, the transcription transformation used in this translation seems appropriate and accurate, as it conveys the intended meaning of the original word while ensuring that the translated term is recognizable to readers familiar with the target language.

*...they both invested heavily in **Bitcoin** which just kept on growing ... [9, p. 30].*

*...вони обидва інвестували значні кошти в **біткойн**, який продовжував зростати...*

The translation transformation used in this example is Transcription, which involves the direct transfer of a word or phrase from one language to another based on their phonetic similarities. In this case, the neologism "Bitcoin" has been transcribed as "біткойн" in Ukrainian.

The transliteration process appears to have been successful in this case, as the Ukrainian spelling accurately reflects the English pronunciation of "Bitcoin". This approach can be particularly useful for translating technical terms or proper nouns that do not have established translations in the target language.

Overall, the use of Transcription to translate the neologism "Bitcoin" appears to have been successful, and the resulting Ukrainian sentence accurately conveys the meaning of the original English sentence.

*I posit that **hashtags** show many of the same characteristics of discourse markers, including features like optionality, orality, and multicategorality [12, p. 8].*

*Я вважаю, що **хештеги** демонструють багато тих самих характеристик, що й маркери дискурсу, включаючи такі функції, як необов'язковість, усність і багатокатегорійність.*

The neologism "hashtags" has been translated into Ukrainian as "хештеги" using the transcription method. The Ukrainian translation seems to be an appropriate choice as it is easy to pronounce and understand for Ukrainian speakers.

*Visibility of **website** on search engine is a crucial factor that determines the existence of every ecommerce business model and Senstore is obviously not an exception [7, p. 7].*

*Видимість **веб-сайту** в пошуковій системі є вирішальним фактором, який визначає існування кожної бізнес-моделі електронної комерції, і Senstore, очевидно, не є винятком.*

The neologism "website" is translated into Ukrainian as "веб-сайт," which is a common and widely used term in the language. The translation follows the standard practice of transliterating English words and phrases into Cyrillic characters and then inflecting them according to the rules of Ukrainian grammar.

*It responds to requests from the clients and generates an upload plan for each back-up request by querying **hash nodes** in the **hash cluster** for the existence of requested data blocks [6, p. 25].*

*Він відповідає на запити від клієнтів і генерує план завантаження для кожного запиту резервного копіювання, запитуючи **хеш-вузли** в **хеш-кластері** щодо існування запитаних блоків даних.*

The translation transformations used in this example involve calculating the equivalent terms in the target language for the neologisms "hash nodes" and "hash cluster". We have opted to use the literal translation approach, which involves translating the individual words in the original term into the corresponding words in the target language.

*Given the scale of the **world of cryptocurrency**, the thesis has its focus primarily on the largest cryptocurrencies [9, p. 6].*

*Враховуючи масштаби **світу криптовалют**, дисертація зосереджена насамперед на найбільших криптовалютах.*

The translation transformation used here is "translating by calculating", which involves a word-for-word translation of the source text using the equivalent words in the target language.

The neologism "world of cryptocurrency" is translated as "світу криптовалют" using a word-for-word approach. The adjective "cryptocurrency" is translated as

"криптовалюта", which means a digital currency that uses encryption techniques for security. The noun "world" is translated as "світу", which means a sphere or realm of activity.

*Because of payment by demand, just pay what is being used, and because it's not necessary to have employers focused on the maintenance and adequacy of the infrastructure or software that is used by **cloud computing** [1, p. 16].*

*Через оплату за вимогою, просто платіть за те, чим користуєтесь, оскільки немає необхідності, в тому, щоб роботодавці зосереджувалися на підтримці та адекватності інфраструктури або програмного забезпечення, яке використовується **хмарними обчисленнями**.*

The neologism "cloud computing" is translated as "хмарними обчисленнями" in Ukrainian. This translation transformation involves calculating the meaning of the English words and expressing that meaning in the target language. The translation is done by analyzing the concept of cloud computing and finding a suitable expression in Ukrainian that captures the same meaning.

***Artificial Intelligence** research has focused on the assessment process for long and a number of algorithms have been developed to assist in assessing the performance of humans or artificial agents [5, p. 17].*

*Дослідження **штучного інтелекту** протягом тривалого часу зосереджувалися на процесі оцінювання, і було розроблено низку алгоритмів, які допомагають оцінювати продуктивність людей або штучних агентів.*

The neologism "Artificial Intelligence" has been translated into Ukrainian as "штучного інтелекту" using the strategy of calculating, which involves finding the equivalent term in the target language based on a mathematical or algorithmic process.

*With the recent rapid advancements in **Internet of Things (IoT) technologies**, one of the applications being researched is smart door lock (SDL) systems [2, p. 111].*

*Зі швидким прогресом **технологій Інтернету речей (IoT)** одним із досліджуваних застосувань є системи розумних дверних замків (SDL)*

The translation transformation used to translate the neologism "Internet of Things (IoT) technologies" into Ukrainian is called "translating by calculating." This

method involves breaking down the neologism into its constituent parts and then translating each part individually.

*Seventy-eight participants were subjected to an immersive **virtual reality (VR) application**, where they received identical instructional information, rendered in three different formats: as text in an overlay interface, as text embedded semantically in a virtual book, or as audio [15, p. 43].*

*Сімдесят вісім учасників використовували **віртуальну реальність (VR)**, де вони отримували ідентичну навчальну інформацію, представлену в трьох різних форматах: як текст у накладеному інтерфейсі, як текст, семантично вбудований у віртуальну книгу, або як аудіо.*

The neologism "virtual reality (VR) application" can be translated into Ukrainian as "віртуальну реальність (VR)" using the translation transformation of calculating.

This transformation involves identifying the meaning of the source language term and finding a corresponding term in the target language that conveys the same meaning. In this case, "virtual reality (VR) application" refers to a computer-generated simulation of a three-dimensional environment that can be interacted with using electronic devices such as a headset or controller.

Augmented Reality (AR) can be defined as a real-world environment in which the physical experience of individuals can be enhanced by adding a layer of virtual information on it [17, p. 12].

Доповнену реальність (AR) можна визначити як середовище реального світу, в якому фізичний досвід індивідів можна покращити шляхом додавання в нього шару віртуальної інформації.

The neologism "Augmented Reality (AR)" refers to the technology that superimposes digital information onto the user's view of the physical world, creating an enhanced or augmented experience. The corresponding translation in Ukrainian, "Доповнену реальність (AR)," also means "Augmented Reality," but in the Ukrainian language.

The translation transformation used here is a straightforward calculation or substitution, where the English words "Augmented Reality" are simply replaced with

their equivalent Ukrainian words "Доповнену реальність." This is a common method used in translation when dealing with neologisms or technical terms, where there is no established equivalent word or phrase in the target language.

Overall, the translation transformation used in this case is appropriate and accurately conveys the meaning of the original English term "Augmented Reality" in Ukrainian.

Big Data refers to datasets whose size is beyond the ability of typical database software tools to capture, store, manage, and analyze [10, p. 21].

Великі дані стосуються наборів даних, розмір яких виходить за межі здатності типових програмних інструментів для збору бази даних, керування та аналізу.

The neologism "Big Data" is a term used to describe the massive volume of structured and unstructured data that is generated by individuals and organizations every day. The term has gained popularity in recent years due to the increasing amount of data being generated, and the need to analyze and make sense of this data in order to gain insights and make better decisions.

When translating "Big Data" into Ukrainian, the translation is "Великі дані". This translation is an example of a translation transformation known as translating by calculating.

Kowalski and Limber (2007) found that about half of cybervictims did not know the identity of the cyberbully [3, p. 2].

Ковальський і Лімбер (2007) виявили, що близько половини кібержертв не знають особу кібер-хулігана.

For translation both neologisms calculation is using.

Currently, the statistics are wide-ranging as to how often or how many children and adolescents are being bullied by a cyberbully [3, p. 2].

В даний час статистика дуже різноманітна щодо того, як часто або скільки дітей і підлітків зазнають знущань з боку кіберзалякувачів.

The neologism "cyberbully" can be translated into Ukrainian as "кіберзалякувач".

The translation transformation used here is translating by calculating, which involves finding an equivalent term or phrase in the target language based on the meaning of the original term.

*Less server request, reducing **network traffic** and resource consumption [16, p. 13].*

*Менше запитів до сервера, що зменшує **мережевий трафік** і споживання ресурсів.*

The neologism "network traffic" can be translated into Ukrainian as "мережевий трафік." This translation involves a straightforward calculation, where "network" is translated as "мережевий" and "traffic" is translated as "трафік."

*Before **Web application** became popular, for front-end development, main libraries such as YUI or jQuary did not exist and there was no library that can be called front-end framework [16, p. 6].*

*До того, як **веб-додатки** стали популярними, для інтерфейсної розробки не існувало основних бібліотек, таких як YUI або jQuary, і не було жодної бібліотеки, яку можна назвати інтерфейсною платформою.*

The translation transformation used here is "translating by calculating", which involves finding an equivalent term or phrase in the target language that conveys the same meaning as the source term. In this case, the translator has calculated the appropriate term for "Web application" by breaking it down into its constituent parts and using the appropriate words in the target language to express the same concept.

*While **smart tags** utilize Radio-frequency Identification (RFID) or Near Field Communication (NFC) technology, smartphones use Wi-Fi, Bluetooth, or NFC to provide keys to the smart lock in order to unlock it [2, p. 111].*

*У той час як **смарт-теги** використовують технологію радіочастотної ідентифікації (RFID) або зв'язку ближнього поля (NFC), смартфони використовують Wi-Fi, Bluetooth або NFC для надання ключів розумному замку, щоб розблокувати його.*

The neologism "smart tags" can be translated into Ukrainian as "смарт-теги". This translation follows the strategy of transliterating the English term into Ukrainian and adding a hyphen to indicate a compound word.

The first part of the term, "smart", is transliterated as "смарт" and corresponds to the English word "smart" meaning intelligent or clever. The second part of the term, "tags", is transliterated as "теги" and corresponds to the English word "tags" meaning labels or markers.

*Many researchers have concentrated their bullying and **cyberbullying** studies specifically on middle and high school students [3, p. 6].*

*Багато дослідників зосередили свої дослідження булінгу та **кібербулінгу** саме на учнях середньої та старшої школи.*

The neologism "cyberbullying" can be translated into Ukrainian using transliteration as "кібербулінгу".

*It is expected that the user-friendliness of the webinar program used by the customer play's an important role in the **webinar** experience, since the most direct contact to the customer occurs through it [18, p. 7].*

*Очікується, що зручність програми для запису вебінару, якою користується клієнт, відіграє важливу роль у проведенні **вебінару**, оскільки через неї відбувається найбільш прямий контакт із клієнтом.*

The neologism "webinar" can be translated into Ukrainian through transliteration as "вебінар."

It was found that calculating is most often used to translate IT neologisms.

2.2 Grammatical transformations in the translation of IT neologisms in popular science literature

However, translating these neologisms accurately can be a challenging task, as they often involve complex technical terminology that may not have an exact equivalent in the target language. One effective approach to translating IT neologisms is through the use of grammatical transformations.

*This thesis was written in cooperation with Origin Group AB, an Ume˚a based startup firm specializing in development of **cryptocurrency-related technologies**, most notably blockchain [9, p. i].*

*Ця дисертація була написана у співпраці з Origin Group AB, стартап-компанією з Умеа, яка спеціалізується на розробці **технологій, пов'язаних з криптовалютою**, зокрема блокчейну.*

The neologism "cryptocurrency-related technologies" can be translated into Ukrainian as "технологій, пов'язаних з криптовалютою". This translation uses the technique of Transposition, which involves changing the word order or grammatical structure of the original text to create a meaningful equivalent in the target language.

In this case, the Transposition technique is used to match the word order and grammatical structure of the Ukrainian language. The original English phrase "cryptocurrency-related technologies" is translated into Ukrainian as "технологій, пов'язаних з криптовалютою", which literally means "technologies related to cryptocurrency".

The use of the genitive case in Ukrainian language indicates a possessive relationship, and "пов'язаних з" (related to) is used to convey the connection between the technologies and cryptocurrency.

Overall, the translation transformation using transposition successfully conveys the meaning of the original phrase in a way that is grammatically correct and natural-sounding in the target language.

*Moreover, as shown later in this thesis, SE can prevent **data modification** at source itself thereby preventing information modification [4, p .2].*

*Крім того, як показано далі в цій дипломній роботі, програмна інженерія може запобігти **зміні даних** у самому джерелі, тим самим запобігаючи зміні інформації.*

The neologism "data modification" has been translated to Ukrainian as "зміні даних". The translation involves a simple transformation technique known as Transposition, which is a type of substitution cipher. Transposition involves rearranging the letters, words or phrases in a message to create a new message.

Artificial Intelligence research has focused on the assessment process for long and a number of algorithms have been developed to assist in assessing the performance of humans or artificial agents [5, p. 17].

*Дослідження **штучного інтелекту** протягом тривалого часу зосереджувалися на процесі оцінювання, і було розроблено низку алгоритмів, які допомагають оцінювати продуктивність людей або штучних агентів.*

In this case, transposition occurs at the sentence level.

*With the recent rapid advancements in **Internet of Things (IoT) technologies**, one of the applications being researched is smart door lock (SDL) systems [2, p. 111].*

*Зі швидким прогресом **технологій Інтернету речей (IoT)** одним із досліджуваних застосувань є системи розумних дверних замків (SDL).*

The neologism "Internet of Things (IoT) technologies" has been translated into Ukrainian as "технологій Інтернету речей (IoT)" using the translation transformation technique of Transposition.

*Based on this background, the aim of this thesis is to select and implement a **machine learning process** that produces an algorithm, which is able to detect whether documents have been translated by humans or computerized systems [3, p. 2].*

*Виходячи з цього, метою цієї дисертації є вибір і реалізація **процесу машинного навчання**, який створює алгоритм, здатний визначити, чи були документи перекладені людьми чи комп'ютеризованими системами.*

Transposition is a translation transformation that involves rearranging the order of words in a sentence while preserving their meaning. The neologism "machine learning process" can be translated into Ukrainian as "процес машинного навчання."

__OpenVPN servers__ at different locations without firewall actively interpreting the traffic and performed throughput test [13, p. 29].

__Сервери OpenVPN__ у різних місцях без брандмауера активно інтерпретували трафік і виконували тест пропускної здатності.

The translation transformation used here is transposition, which means that the order of the words in the original text is changed when translating to the target language.

The neologism "OpenVPN servers" is a compound noun that consists of two parts: "OpenVPN" and "servers." The word "OpenVPN" is an acronym that stands for "Open Virtual Private Network," which refers to a specific type of virtual private network that uses open source software. The word "servers" refers to computer systems that provide services to other computers over a network.

In the target language, the compound noun is translated as "Сервери OpenVPN," which follows the structure of adjective-noun in the target language. The adjective "OpenVPN" is placed before the noun "servers," which is the opposite order from the original text.

Overall, the use of transposition in this translation transformation results in a clear and understandable target language text that accurately conveys the meaning of the original text.

*Also, I installed the firewall to interpret the **OpenVPN traffic** and preformed speed test [13, p. 37].*

*Крім того, я встановив брандмауер для інтерпретації **трафіку OpenVPN** і попереднього тесту швидкості.*

In this case, the original English phrase "OpenVPN traffic" consists of two words: "OpenVPN" and "traffic". The Ukrainian translation "трафіку OpenVPN" has the same meaning but with the word order reversed: "traffic" ("трафік") comes after "OpenVPN" in Ukrainian instead of before it as in English.

*It responds to requests from the clients and generates an upload plan for each back-up request by querying hash nodes in the hash cluster for the existence of requested **data blocks** [6, p. 25].*

*Він відповідає на запити від клієнтів і генерує план завантаження для кожного запиту резервного копіювання, запитуючи хеш-вузли в хеш-кластері щодо існування запитаних **блоків даних**.*

In the case of the neologism "data blocks", the translation into Ukrainian using transposition would result in "блоків даних" where the order of the words is switched.

*When a **peer** wants to join a blockchain P2P network, it starts by discovering other participating peers that are already connected [4, p .5].*

*Коли **однорангова мережа** бажає приєднатися до однорангової блокчейн-мережі P2P (Peer-to-Peer), вона починає з виявлення інших однорангових учасників, які вже підключені.*

The neologism "peer - однорангова мережа" seems to be a translation of the English term "peer-to-peer network", which refers to a type of network where individual nodes can act as both clients and servers to one another without the need for a centralized server.

The translation transformation used here is "translating by replacing", where the English term "peer-to-peer" is replaced with the Ukrainian term "однорангова мережа".

*However this test's ambition is much greater than the usual use case of chatbots; the main difference being that the **knowledge of a chatbot** is narrow whereas the Turing test assumes one can talk about any topic with the agent [14, p. 2].*

*Однак амбіції цього тесту набагато більші, ніж у звичайному випадку використання чат-ботів; головна відмінність полягає в тому, що **знання домену чат-бота** є вузькими, тоді як тест Тьюринга передбачає, що з агентом можна говорити на будь-яку тему.*

In this case adding was using for translation. In Ukrainian variant the word "домену" is adding to explain sense of the phrases.

*When a peer wants to join a **blockchain P2P network**, it starts by discovering other participating peers that are already connected [4, p .5].*

*Коли однорангова мережа бажає приєднатися до **однорангової блокчейн-мережі P2P (Peer-to-Peer)**, вона починає з виявлення інших однорангових учасників, які вже підключені.*

The neologism "blockchain P2P network" can be translated into Ukrainian as "однорангової блокчейн-мережі P2P".

The translation involved adding the adjective "однорангової" which means "peer-to-peer". This addition is necessary to accurately convey the meaning of the original term, as it specifies that the blockchain network is based on a peer-to-peer architecture.

*The **glasses** and **helmets** are the two components that facilitate the use of AR for real-world applications [17, p. 18].*

***Віртуальні окуляри** та **шоломи** – це два компоненти, які полегшують використання доповненої реальності для реальних додатків.*

The given neologism has been translated from English to Ukrainian language using the translation transformation of addition.

*The need to acknowledge and plan for uncertainty is a dimension of **Big Data** that has been introduced as executives try to better understand the uncertain world around them [10, p. 20].*

*Необхідність визначення та планування є одним з аспектів **великих об'ємів даних**, який був запроваджений, оскільки керівники намагаються краще зрозуміти невизначений світ навколо них.*

In the neologism "Big Data", the translation transformation used is addition. Specifically, the translator has added the Ukrainian phrase "великих об'ємів" to the English term "Big Data" to create a Ukrainian equivalent that conveys the same meaning.

*The **Cloud** offers a range of options for Big Data analysis in both public and private **cloud** settings. On the infrastructure side, **Cloud** provides options for managing and accessing very large data sets as well as for supporting powerful infrastructure elements at relatively low cost [10, p. 43].*

***Хмарне сховище** пропонує низку варіантів аналізу великих даних як у загальнодоступних, так і в приватних налаштуваннях **хмарного сховища**. Що стосується інфраструктури, **хмарне сховище** надає можливості для керування та доступу до дуже великих об'ємів даних, а також для підтримки потужних елементів інфраструктури за відносно низькою ціною.*

The neologism "The Cloud" is an English term that refers to a digital storage system where data is stored and accessible over the internet. The translation transformation used to translate "The Cloud" into Ukrainian is translating by addition, which involves adding a word or phrase to the original term to create a new term in the target language.

The Ukrainian translation of "The Cloud" is "Хмарне сховище," which is a direct translation of the term's meaning. The word "Хмарне" means "cloud," while "сховище" means "storage" or "repository." By adding the word "сховище" to "Хмарне," the translation accurately conveys the concept of cloud storage.

*It is expected that the user-friendliness of the **webinar program** used by the customer play's an important role in the webinar experience, since the most direct contact to the customer occurs through it [18, p. 7].*

*Очікується, що зручність **програми для запису вебінару**, якою користується клієнт, відіграє важливу роль у проведенні вебінару, оскільки через неї відбувається найбільш прямий контакт із клієнтом.*

In this neologism, the original term "webinar program" has been translated into Ukrainian as "програми для запису вебінару" using the technique of translation by addition.

Translation by addition involves adding one or more words to the original text to convey the same meaning in the target language. In this case, the translator has added the word "запису" (recording) to the original term "webinar program" to create the Ukrainian translation "програми для запису вебінару" (programs for recording webinars).

The addition of the word "запису" clarifies that the programs being referred to are specifically for recording webinars, rather than simply facilitating their delivery.

*A backup of the recipes can be kept in the **cloud** and downloaded if the local copy is not available [6, p. 9].*

*Резервну копію рецептів можна зберігати в **хмарному сховищі** та завантажити, якщо локальна копія недоступна.*

The neologism "cloud - хмарному сховищі" appears to be a translation transformation where the original English word "cloud" has been translated into Ukrainian using the addition of the "сховищі".

*Our experiments and analysis validate that OptLock offers a fast and efficient **unlocking experience** whichis highly secure, and successfully thwarts various attack scenarios[2, p. 112].*

*Наші експерименти та аналіз підтверджують, що OptLock пропонує швидке та ефективне **розблокування**, яке є дуже безпечним і успішно запобігає різноманітним сценаріям атак.*

The neologism "unlocking experience" can be translated into Ukrainian as "розблокування". The omission of the word "experience" is used here, as the word has no importance in the context of the target language. So, the translation transformation used here is omission.

It was found that transposition is most often used to translate IT neologisms.

2.3 Lexico-grammatical transformations in the translation of IT neologisms in popular science literature

One of the strategies that can be used to translate is lexico-grammatical transformations. These transformations involve modifying the lexical and grammatical structures of a sentence or phrase to make it more appropriate for the target language. In the context of IT neologisms, lexico-grammatical transformations can be particularly useful in helping to convey the precise meaning of technical terms and concepts.

*The **VR application** was compared to a traditional training system (i.e. a power point presentation) in a between-subjects experiment [15, p. 44].*

***Додаток на основі віртуальної реальності (VR)** порівнювали з традиційною системою навчання (тобто презентацією в Power Point) в експерименті між суб'єктами.*

The translation transformation used here is total reorganization, which involves completely restructuring the original phrase while maintaining the same meaning.

The neologism "VR application" is translated into Ukrainian as "Додаток на основі віртуальної реальності (VR)", which can be translated back into English as "An application based on virtual reality (VR)".

This translation transformation is effective in conveying the meaning of the original neologism while also providing additional information about the application

being based on virtual reality technology. It also ensures that the translated phrase is easily understandable to the target audience and does not use unfamiliar or confusing terminology.

Overall, the use of Total reorganization in this translation transformation has resulted in a clear, concise, and accurate translation of the neologism "VR application" into Ukrainian.

*The framework lists five functions for achieving **cyber security** outcomes; identify, protect, detect, respond, and recover [11].*

*Структура перераховує п'ять функцій для досягнення результатів **кібербезпеки**; ідентифікувати, захищати, виявляти, реагувати та відновлювати.*

Translating the neologism "cyber security" into Ukrainian as "кібербезпеки" involves a total reorganization of the words in the original phrase.

*Moreover, as shown later in this thesis, **SE** can prevent data modification at source itself thereby preventing information modification [4, p .2].*

*Крім того, як показано далі в цій дипломній роботі, програмна інженерія може запобігти **зміні даних** у самому джерелі, тим самим запобігаючи зміні інформації.*

The neologism "SE" is being translated into Ukrainian as "зміні даних" using the compensation translation transformation.

*Generally this **VM** are created with an operative system and some applications installed for one of the next purposes: - Virtual servers. - Routers and Firewalls. – Monitoring [1, p. 23].*

*Зазвичай така **віртуальна машина** створюється з операційною системою та деякими програмами, встановленими для однієї з наступних цілей: - Віртуальні сервери. - Маршрутизатори та брандмауери. – Моніторинг.*

The neologism "VM" in Ukrainian language is a short form of "віртуальна машина," which translates to "virtual machine" in English. The translation transformation used here is compensation.

*The last approach tries to filter out **spam email messages** from the user's email box by identifying which messages are likely to be spam and which are not [8, p. 30].*

*Останній підхід намагається відфільтрувати **спам-повідомлення з електронної скриньки** користувача, визначаючи, які повідомлення ймовірно є спамом, а які ні.*

The original term "spam email messages" refers to unsolicited and unwanted emails that are sent in large quantities. The term "spam" is a neologism that has become widely used to describe this phenomenon.

When translating this term into Ukrainian, we have used the technique of compensation, which uses analogue words to convey the meaning of the original term.

*Strong disapproval is with the claim that little to no evidence is present for brain exercising **apps** [14, p. 3].*

*Категорично заперечується твердження про те, що **додатків** для тренування мозку практично немає.*

The neologism "apps" is a shortened form of the word "applications," referring to software programs that can be downloaded and installed on mobile devices or computers. When translating "apps" into Ukrainian, one possible option is "додатки," which is the commonly used term in the Ukrainian language for "applications." The translation transformation used here is compensation.

*Visibility of website on search engine is a crucial factor that determines the existence of every **ecommerce** business model and Senstore is obviously not an exception [7, p. 7].*

*Видимість веб-сайту в пошуковій системі є вирішальним фактором, який визначає існування кожної бізнес-моделі **електронної комерції**, і Senstore, очевидно, не є винятком.*

The neologism "ecommerce" refers to commercial transactions conducted electronically over the internet. When translating this term into Ukrainian, the most common translation is "електронна комерція" or "електронна торгівля." However, the suggested translation "електронної комерції" can also be considered as an accurate translation with the use of a compensation transformation.

*In this chapter, we are going to discuss on concepts of **firewalls**, VPN's and OpenVPN indepth [13, p. 8].*

*У цьому розділі ми збираємося обговорити поняття **брандмауерів**, VPN і OpenVPN.*

The neologism "firewalls" refers to a type of computer security system that is designed to prevent unauthorized access to a network or computer system. To translate this term into Ukrainian, the term "брандмауерів" is often used, which is a direct transliteration of the English term. The translation strategy used here is compensation.

*A **backup** of the recipes can be kept in the cloud and downloaded if the local copy is not available [6, p. 9].*

***Резервну копію** рецептів можна зберігати в хмарному сховищі та завантажити, якщо локальна копія недоступна.*

The neologism "backup" in English refers to creating a duplicate copy of data or files in case the original is lost or damaged. In Ukrainian, the translation for "backup" is "резервна копія", which literally translates to "reserve copy". The translation transformation used here is compensation.

*The local copy of recipes can be maintained on any offline media e.g. optical media or **pen drive** [6, p. 9].*

*Локальну копію рецептів можна зберігати на будь-якому офлайн-носії, напр. оптичний носій або **накопичувач**.*

In the case of "pen drive," the term "накопичувач" is a good example of a Compensation translation. The term "накопичувач" literally means "accumulator" in Ukrainian, but in the context of a portable storage device, it conveys the same meaning as "pen drive." The use of this term is a suitable compensation for the linguistic and cultural differences between English and Ukrainian.

It was found that compensation is most often used to translate IT neologisms.

This chapter focuses on the discourse features of IT neologisms in science popular texts and the translation options available for conveying their meaning accurately and effectively. We will examine the different strategies that translators can use to deal with neologisms, including borrowing, adaptation, and the use of translation

transformations. Thus, it was found that the following translation transformations are used to translate IT neologisms (see Figure 2.1): (lexical) Transcription – 6; Transliteration – 3; Calculating – 11; (gramatical) Transposition – 8; Replacement – 1; Addition – 7; Omission – 4; (lexical-gramatical) Total reorganization – 2; Compensation – 8.
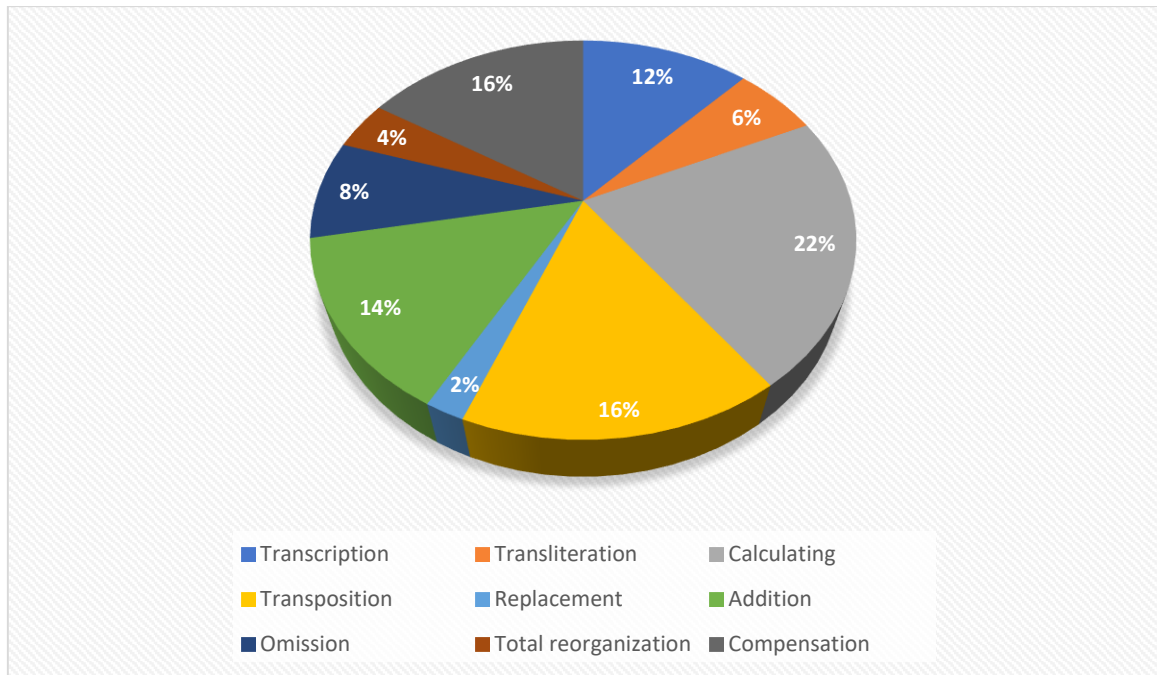

Figure 2.1 The use of transformations for the translation of IT neologisms

CONCLUSIONS

This term paper has explored the peculiarities of translating IT neologisms based on popular science literature. Through an analysis of various examples, we have identified the challenges associated with translating IT neologisms and examined the different strategies that translators can use to convey the meaning of these terms accurately and effectively:

1 - Transcription – 12%; 2 - Transliteration – 6%; 3 - Calculating – 22%; 4 - Transposition – 16%; 5 - Replacement – 2%; 6 - Addition – 14%; 7 - Omission – 8%; 8 - Total reorganization – 4%; 9 - Compensation – 16%.

In conclusion, the analysis of different translation transformations used in the translation of IT neologisms has revealed that there is no single approach that can be used in all cases. The selection of a particular transformation technique depends on the nature of the neologism and the context in which it is used.

The results show that the most commonly used transformation types are Calculating (22%), followed by Compensation and Transcription (both 16%). These transformations are particularly useful in cases where the neologism has no direct equivalent in the target language.

Transposition (16%) and Addition (14%) were also frequently used transformation types, indicating that translators often employ these techniques to convey the precise meaning of neologisms in the target language.

On the other hand, Replacement (2%), Omission (8%), and Total reorganization (4%) were used less frequently, suggesting that these transformation types are less suitable for translating IT neologisms.

Overall, this coursework has provided valuable insights into the challenges and strategies associated with translating IT neologisms in popular science literature. By understanding these peculiarities, translators can develop effective translation strategies that accurately convey the meaning of technical terms and concepts to a non-expert audience.

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ANNEX

№	Sentence	Translation	Way of translation
1	*However, there is an additional need for traceability of data and its origin which is not natively supported by **blockchain** or distributed database.*	*Однак існує додаткова потреба в відстежуваності даних та їх походження, яка не підтримується **блокчейном** або розподіленою базою даних.*	Transcription
2	*In its simplest form, a block in the blockchain contains data segregated in multiple small entities called as transactions, a **hash** of the previous block.*	*У своїй найпростішій формі блок у блокчейні містить дані, розділені на кілька блоків, які називаються транзакціями, **хеш** попереднього блоку.*	Transcription
3	*...they both invested heavily in **Bitcoin** which just kept on growing ...*	*...вони обидва інвестували значні кошти в **біткойн**, який продовжував зростати...*	Transcription
4	*I posit that **hashtags** show many of the same characteristics of discourse markers, including features like*	*Я вважаю, що **хештеги** демонструють багато тих самих характеристик, що й*	Transcription

	optionality, orality, and multicategorality.	*маркери дискурсу, включаючи такі функції, як необов'язковість, усність і багатокатегорійність.*	
5	*Visibility of **website** on search engine is a crucial factor that determines the existence of every ecommerce business model and Senstore is obviously not an exception.*	*Видимість **веб-сайту** в пошуковій системі є вирішальним фактором, який визначає існування кожної бізнес-моделі електронної комерції, і Senstore, очевидно, не є винятком*	Transcription
6	*It responds to requests from the clients and generates an upload plan for each back-up request by querying **hash nodes** in the **hash cluster** for the existence of requested data blocks.*	*Він відповідає на запити від клієнтів і генерує план завантаження для кожного запиту резервного копіювання, запитуючи **хеш-вузли** в **хеш-кластері** щодо існування запитаних блоків даних.*	Transcription
7	*While **smart tags** [113] utilize Radio-frequency Identification (RFID) or Near Field Communication (NFC)*	*У той час як **смарт-теги** [113] використовують технологію*	Transliteration

	technology, smartphones [114, 115] use Wi-Fi, Bluetooth, or NFC to provide keys to the smart lock in order to unlock it.	*радіочастотної ідентифікації (RFID) або зв'язку ближнього поля (NFC), смартфони [114, 115] використовують Wi-Fi, Bluetooth або NFC для надання ключів розумному замку, щоб розблокувати його.*	
8	*Many researchers have concentrated their bullying and **cyberbullying** studies specifically on middle and high school students.*	*Багато дослідників зосередили свої дослідження булінгу та **кібербулінгу** саме на учнях середньої та старшої школи.*	Transliteration
9	*It is expected that the user-friendliness of the webinar program used by the customer play's an important role in the **webinar** experience, since the most direct contact to the customer occurs through it.*	*Очікується, що зручність програми для запису вебінару, якою користується клієнт, відіграє важливу роль у проведенні **вебінару**, оскільки через неї відбувається найбільш прямий контакт із клієнтом.*	Transliteration
10	*Given the scale of the **world of cryptocurrency**, the thesis has*	*Враховуючи масштаби **світу криптовалют**, дисертація*	Calculating

	its focus primarily on the largest cryptocurrencies.	*зосереджена насамперед на найбільших криптовалютах.*	
11	*Because of payment by demand, just pay what is being used, and because it's not necessary to have employers focused on the maintenance and adequacy of the infrastructure or software that is used by **cloud computing**.*	*Через оплату за вимогою, просто платіть за те, чим користуєтесь, оскільки немає необхідності, в тому, щоб роботодавці зосереджувалися на підтримці та адекватності інфраструктури або програмного забезпечення, яке використовується **хмарними обчисленнями**.*	Calculating
12	***Artificial Intelligence** research has focused on the assessment process for long and a number of algorithms have been developed to assist in assessing the performance of humans or artificial agents.*	*Дослідження **штучного інтелекту** протягом тривалого часу зосереджувалися на процесі оцінювання, і було розроблено низку алгоритмів, які допомагають*	Calculating

		оцінювати продуктивність людей або штучних агентів.	
13	*With the recent rapid advancements in **Internet of Things (IoT) technologies**, one of the applications being researched is smart door lock (SDL) systems.*	*Зі швидким прогресом **технологій Інтернету речей (IoT)** одним із досліджуваних застосувань є системи розумних дверних замків (SDL)*	Calculating
14	*Seventy-eight participants were subjected to an immersive **virtual reality (VR) application**, where they received identical instructional information, rendered in three different formats: as text in an overlay interface, as text embedded semantically in a virtual book, or as audio.*	*Сімдесят вісім учасників використовували **віртуальну реальність (VR)**, де вони отримували ідентичну навчальну інформацію, представлену в трьох різних форматах: як текст у накладеному інтерфейсі, як текст, семантично вбудований у віртуальну книгу, або як аудіо.*	Calculating
15	***Augmented Reality (AR)** can be defined as a real-world environment in which the*	***Доповнену реальність (AR)** можна визначити як середовище*	Calculating

	physical experience of individuals can be enhanced by adding a layer of virtual information on it.	*реального світу, в якому фізичний досвід індивідів можна покращити шляхом додавання в нього шару віртуальної інформації*	
16	***Big Data*** *refers to datasets whose size is beyond the ability of typical database software tools to capture, store, manage, and analyze.*	***Великі дані*** *стосуються наборів даних, розмір яких виходить за межі здатності типових програмних інструментів для збору бази даних, керування та аналізу.*	Calculating
17	*Kowalski and Limber (2007) found that about half of* ***cybervictims*** *did not know the identity of the* ***cyberbully***.	*Ковальський і Лімбер (2007) виявили, що близько половини* ***кібержертв*** *не знають особу* ***кібер-хулігана***.	Calculating
18	*Currently, the statistics are wide-ranging as to how often or how many children and adolescents are being bullied by a* ***cyberbully.***	*В даний час статистика дуже різноманітна щодо того, як часто або скільки дітей і підлітків зазнають знущань з боку* ***кіберзалякувачів***.	Calculating

19	*Less server request, reducing **network traffic** and resource consumption.*	*Менше запитів до сервера, що зменшує **мережевий трафік** і споживання ресурсів.*	Calculating
20	*Before **Web application** became popular, for front-end development, main libraries such as YUI or jQuary did not exist and there was no library that can be called front-end framework.*	*До того, як **веб-додатки** стали популярними, для інтерфейсної розробки не існувало основних бібліотек, таких як YUI або jQuary, і не було жодної бібліотеки, яку можна назвати інтерфейсною платформою.*	Calculating
21	*This thesis was written in cooperation with Origin Group AB, an Ume˚a based startup firm specializing in development of **cryptocurrency-related technologies**, most notably blockchain.*	*Ця дисертація була написана у співпраці з Origin Group AB, стартап-компанією з Умеа, яка спеціалізується на розробці **технологій, пов'язаних з криптовалютою**, зокрема блокчейну.*	Transposition
22	*Moreover, as shown later in this thesis, SE can prevent **data modification** at source itself*	*Крім того, як показано далі в цій дипломній роботі, програмна інженерія може*	Transposition

	thereby preventing information modification.	*запобігти **зміні даних** у самому джерелі, тим самим запобігаючи зміні інформації*	
23	***Artificial Intelligence** research has focused on the assessment process for long and a number of algorithms have been developed to assist in assessing the performance of humans or artificial agents.*	*Дослідження **штучного інтелекту** протягом тривалого часу зосереджувалися на процесі оцінювання, і було розроблено низку алгоритмів, які допомагають оцінювати продуктивність людей або штучних агентів.*	Transposition
24	*With the recent rapid advancements in **Internet of Things (IoT) technologies**, one of the applications being researched is smart door lock (SDL) systems.*	*Зі швидким прогресом **технологій Інтернету речей (IoT)** одним із досліджуваних застосувань є системи розумних дверних замків (SDL)*	Transposition
25	*Based on this background, the aim of this thesis is to select and implement a **machine learning process** that produces an algorithm, which is able to detect whether documents have*	*Виходячи з цього, метою цієї дисертації є вибір і реалізація **процесу машинного навчання**, який створює алгоритм,*	Transposition

	been translated by humans or computerized systems.	*здатний визначити, чи були документи перекладені людьми чи комп'ютеризованими системами.*	
26	***OpenVPN servers*** *at different locations without firewall actively interpreting the traffic and performed throughput test.*	***Сервери OpenVPN*** *у різних місцях без брандмауера активно інтерпретували трафік і виконували тест пропускної здатності.*	Transposition
27	*Also, I installed the firewall to interpret the **OpenVPN traffic** and preformed speed test.*	*Крім того, я встановив брандмауер для інтерпретації **трафіку OpenVPN** і попереднього тесту швидкості.*	Transposition
28	*It responds to requests from the clients and generates an upload plan for each back-up request by querying hash nodes in the hash cluster for the existence of requested **data blocks.***	*Він відповідає на запити від клієнтів і генерує план завантаження для кожного запиту резервного копіювання, запитуючи хеш-вузли в хеш-кластері щодо*	Transposition

	існування запитаних **блоків даних.**	
29	*However this test's ambition is much greater than the usual use case of chatbots; the main difference being that the domain* **knowledge of a chatbot** *is narrow whereas the Turing test assumes one can talk about any topic with the agent.*	*Однак амбіції цього тесту набагато більші, ніж у звичайному випадку використання чат-ботів; головна відмінність полягає в тому, що* **знання домену чат-бота** *є вузькими, тоді як тест Тьюринга передбачає, що з агентом можна говорити на будь-яку тему*	Addition
30	*When a peer wants to join a* **blockchain P2P network**, *it starts by discovering other participating peers that are already connected.*	*Коли однорангова мережа бажає приєднатися до* **однорангової блокчейн-мережі P2P (Peer-to-Peer)**, *вона починає з виявлення інших однорангових учасників, які вже підключені.*	Addition

31	*The **glasses** and **helmets** are the two components that facilitate the use of AR for real-world applications.*	***Віртуальні окуляри та шоломи** – це два компоненти, які полегшують використання доповненої реальності для реальних додатків.*	Addition
32	*The need to acknowledge and plan for uncertainty is a dimension of **Big Data** that has been introduced as executives try to better understand the uncertain world around them.*	*Необхідність визначення та планування є одним з аспектів **великих об'ємів даних**, який був запроваджений, оскільки керівники намагаються краще зрозуміти невизначений світ навколо них.*	Addition
33-34	*The **Cloud** offers a range of options for Big Data analysis in both public and private **cloud** settings. On the infrastructure side, **Cloud** provides options for managing and accessing very large data sets as well as for supporting powerful infrastructure elements at relatively low cost.*	***Хмарне сховище** пропонує низку варіантів аналізу великих даних як у загальнодоступних, так і в приватних налаштуваннях **хмарного сховища**. Що стосується інфраструктури, **хмарне сховище** надає*	Addition

		можливості для керування та доступу до дуже великих об'ємів даних, а також для підтримки потужних елементів інфраструктури за відносно низькою ціною.	
35	*It is expected that the user-friendliness of the **webinar program** used by the customer play's an important role in the webinar experience, since the most direct contact to the customer occurs through it.*	*Очікується, що зручність **програми для запису вебінару**, якою користується клієнт, відіграє важливу роль у проведенні вебінару, оскільки через неї відбувається найбільш прямий контакт із клієнтом.*	Addition
36	*A backup of the recipes can be kept in the **cloud** and downloaded if the local copy is not available.*	*Резервну копію рецептів можна зберігати в **хмарному сховищі** та завантажити, якщо локальна копія недоступна.*	Addition

37	*When a **peer** wants to join a blockchain P2P network, it starts by discovering other participating peers that are already connected.*	*Коли **однорангова мережа** бажає приєднатися до однорангової блокчейн-мережі P2P (Peer-to-Peer), вона починає з виявлення інших однорангових учасників, які вже підключені.*	Replacement
38	*Our experiments and analysis validate that OptLock offers a fast and efficient **unlocking experience** which is highly secure, and successfully thwarts various attack scenarios.*	*Наші експерименти та аналіз підтверджують, що OptLock пропонує швидке та ефективне **розблокування**, яке є дуже безпечним і успішно запобігає різноманітним сценаріям атак.*	Omission
39	*Seventy-eight participants were subjected to an immersive **virtual reality (VR) application**, where they received identical instructional information, rendered in three different formats: as text in an overlay interface, as text*	*Сімдесят вісім учасників використовували **віртуальну реальність (VR)**, де вони отримували ідентичну навчальну інформацію, представлену в трьох різних форматах: як*	Total reorganization

	embedded semantically in a virtual book, or as audio.	*текст у накладеному інтерфейсі, як текст, семантично вбудований у віртуальну книгу, або як аудіо.*	
40	*This thesis was written in collaboration with Origin Group AB, a Umeå-based start-up company specializing in the development of* **cryptocurrency-related technologies**, *in particular blockchain.*	*Ця дисертація була написана у співпраці з Origin Group AB, стартап-компанією з Умео, що спеціалізується на розробці* **технологій, пов'язаних з криптовалютою**, *зокрема блокчейну [Isaksso, p. i].*	Transposition
41	*The* **VR application** *was compared to a traditional training system (i.e. a power point presentation) in a between-subjects experiment.*	**Додаток на основі віртуальної реальності (VR)** *порівнювали з традиційною системою навчання (тобто презентацією в Power Point) в експерименті між суб'єктами*	Total reorganization

42	*The framework lists five functions for achieving **cyber security** outcomes; identify, protect, detect, respond, and recover.*	*Структура перераховує п'ять функцій для досягнення результатів **кібербезпеки**; ідентифікувати, захищати, виявляти, реагувати та відновлювати.*	Total reorganization
43	*Moreover, as shown later in this thesis, **SE** can prevent data modification at source itself thereby preventing information modification.*	*Крім того, як показано далі в цій дипломній роботі, програмна інженерія може запобігти **зміні даних** у самому джерелі, тим самим запобігаючи зміні інформації*	Compensation
44	*Generally this **VM** are created with an operative system and some applications installed for one of the next purposes: - Virtual servers. - Routers and Firewalls. – Monitoring.*	*Зазвичай така **віртуальна машина** створюється з операційною системою та деякими програмами, встановленими для однієї з наступних цілей: - Віртуальні сервери. -*	Compensation

		Маршрутизатори та брандмауери. – Моніторинг.	
45	*The last approach tries to filter out **spam email messages** from the user's email box by identifying which messages are likely to be spam and which are not.*	*Останній підхід намагається відфільтрувати **спам-повідомлення з електронної скриньки** користувача, визначаючи, які повідомлення ймовірно є спамом, а які ні.*	Compensation
46	*Strong disapproval is with the claim that little to no evidence is present for brain exercising **apps.***	*Категорично заперечується твердження про те, що **додатків** для тренування мозку практично немає.*	Compensation
47	*Visibility of website on search engine is a crucial factor that determines the existence of every **ecommerce** business model and Senstore is obviously not an exception.*	*Видимість веб-сайту в пошуковій системі є вирішальним фактором, який визначає існування кожної бізнес-моделі **електронної комерції**,*	Compensation

		і Senstore, очевидно, не є винятком.	
48	*In this chapter, we are going to discuss on concepts of **firewalls**, VPN's and OpenVPN indepth.*	*У цьому розділі ми збираємося обговорити поняття **брандмауерів**, VPN і OpenVPN.*	Compensation
49	*A **backup** of the recipes can be kept in the cloud and downloaded if the local copy is not available.*	***Резервну копію** рецептів можна зберігати в хмарному сховищі та завантажити, якщо локальна копія недоступна.*	Compensation
50	*The local copy of recipes can be maintained on any offline media e.g. optical media or **pen drive**.*	*Локальну копію рецептів можна зберігати на будь-якому офлайн-носії, напр. оптичний носій або **накопичувач**.*	Compensation

РЕЗЮМЕ

Курсову роботу присвячено дослідженню способів перекладу ІТ-неологізмів науково-популярного дискурсу. У ході роботи висвітлено основні етапи наукової думки в галузі дослідження неологізмів, описано існуючі способи перекладу ІТ-неологізмів у науково-популярному дискурсі, проаналізовано зразок тексту науково-популярного дискурсу і здійснено перекладацький аналіз фактичного матеріалу дослідження (ІТ-неологізми науково-популярного дискурсу, усього 50 випадків). Крім того, у курсовій роботі складено таблицю, що містить можливі способи перекладу ІТ-неологізмів.

Ключові слова: переклад, перекладацький аналіз, неологізм, науково-популярний дискурс, ІТ.