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ADDRESSING CHALLENGES IN ENHANCING THE FRAN DICTIONARY PORTAL FOR THE SLOVENIAN LANGUAGES

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Fran is a dictionary portal developed by the Fran Ramovš Institute of the Slovenian Language. It is designed for general users and is accessible for free, without ads, and does not require registration.

Since its launch in 2014, the main goal of the portal has been to provide users with easy access to all institutional dictionaries in one place. Currently, the Fran portal contains 44 dictionaries, categorized into five groups: general, etymological, historical, terminological, and dialectal dictionaries.

In our presentation, we will present the challenges we face in enhancing the Fran portal. The dictionaries on the portal can differ fundamentally from each other:

(1) They cover different varieties of the Slovenian language, ranging from standard and non-standard forms to variations across time and usage domains.

(2) They address different linguistic phenomena, such as synonymy, valency, phraseology, and others. Furthermore, some of these dictionaries have normative validity, while others are primarily descriptive.

(3) They differ in the level of integration. Dictionaries originally designed for print have been converted into XML and adjusted to suit online media, with varying degrees of precision and levels of possible adaptability. Dictionaries designed primarily for online use allow more flexible ways of presenting their content. This can also include multimedia and interactive elements.

Because the dictionaries on the portal can be quite diverse, it is impossible to present them in a uniform manner with consistent structure and the same layout for the content of all dictionaries. As a result, we adopted a dual-level logic for displaying dictionary content.

One level focuses on the portal perspective, while the other focuses on the perspective of each individual dictionary as an independent unit.

The first level of presentation is the search result list, where (in the ideal scenario of online dictionaries) brief excerpts from all the dictionaries that describe the searched word are presented.

The second level of dictionary data presentation consists of complete dictionary entries of individual dictionaries. Here, each dictionary functions as a completely independent entity. Dictionary entries provide more detailed information about a specific word, and are displayed when a user clicks on a headword or on the "Full entry" button in the list of search results.

Visually, data of the same kind that appears in multiple dictionaries is displayed likewise (for example, the text in green colour represents illustrative material). But visual unification also presents a dilemma as each dictionary demands highlighting of different data, and it may be better to display some data in a way that was not considered in previous dictionaries because of their different concepts. For example, relationships between words in the synonym dictionary are shown with a graphic scheme, whereas in other dictionaries, where synonymy plays only a minor role, such visualization would not make much sense.

These are some of the challenges we face when designing the structure and the layout of a new dictionary on the Fran portal. When including so many different dictionaries in the frame of one portal design, the only way is to manoeuvre between the already accepted displaying guidelines and particularities of each new dictionary.

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A NEW CORPUS OF POLISH

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A new corpus of Polish: Korpus Współczesnego Języka Polskiego 'Corpus of Contemporary Polish' has been launched at the beginning of 2024. It is the first large and balanced reference corpus, since the previous one was launched in 2011.

In Poland, large language reference corpora started to be built quite early. Since the turn of the millennium, the PELCRA Corpus of the University of Łódź, the Corpus of the Polish Academy of Sciences (the Institute of Polish Language and the Institute of Computer Science) and the Corpus of the PWN Scientific Publishing House were build. Each of these corpora was over hundred million words in size. In 2007, representatives of these three institutions created the consortium of the National Corpus of Polish. In 2011, a balanced corpus of 300 million words and a large corpus of 1.5 billion words have been made available on the web: nkjp.pl. Two independent search programs enabled detailed inflectional search with disambiguation of lemmas, and, on the other hand, collocation search (Przepiórkowski et al. 2011).

Unfortunately, due to formal and financial reasons, the project was not updated and the corpus, which we were proud of 10 years ago, became grossly out of date. Over the following years, the role of a reference corpus was served by a monitor corpus of Internet texts (including newspaperss' web sites) - monco.frazeo.pl. Monco.PL is a large, even huge - over 8 billion words, up to date, and constantly growing up corpus, but it is unbalanced and limited in grammatical search possibilities (Pęzik).

In a situation where there was no representative corpus for such a large language as Polish, in 2021 did the Institute of Computer Science undertake to collect a corpus covering the years 2010-2020 as part of a large DARIAH.PL project (Digital Research Infrastructure for the Arts and Humanities). The chief of the corpus project was Małgorzata Marciniak, the author of this text was also a member of the team.

KORPUS WSPÓŁCZESNEGO JĘZYKA POLSKIEGO

After 3 years of intensive work, programming, tagging and text aquisition , at the beginning of 2024 the corpus was made available at: https://kwjp.ipipan.waw.pl.

Korpus Współczesnego Języka Polskiego (further KWJP, Corpus of Contemporary Polish) covers texts from the second decade of the 21st century. It compiles a balanced corpus of 100 million words, a large unbalanced corpus of 1 billion (mostly press texts, not yet available in the search program). The new

corpus can be treated as a continuation of the NKJP in the process of monitoring Polish language resources since the beginning of the 20th century. But KWJP is an independent and up-to-date corpus of contemporary Polish. One can check here typical uses of words and language structures.

In order to define the frequency and associations of words and constructions which reflects those of average language users, care must be taken to balance of the corpus. The balanced core corpus consists of 35% press texts (mainly dailies and weeklies, daily news and comments), 30% fiction and 35% non-fiction books and periodical non-fiction texts. There are 694 book titles and many issues of 164 different press titles in the balanced part. We selected press texts randomly from individual titles, books from various thematic fields, basing on data abut the readership in Poland: the National Library and the Press Readership Research. We were not guided by our own literary tastes, by our political views in deeply divided Poland, or by assessment of the facts described in the texts. The reference corpus is intended to contain primarily typical texts read by the masses, and is intended to reflect the linguistic habits of average Polish speakers, but also to reflect the diversity of Polish in various thematic areas and genres. The balanced corpus text table is located on the corpus website in the tab Teksty: https://kwjp.ipipan.waw.pl/texts.

Compared to the structure of the balanced NKJP, the new corpus lacks spoken tetxs, web sites and social media. It is a corpus of the traditional written (and carefully edited) genres. Collecting spoken and data and social media texts was a task of other DARIAH sub-projects. KWJP is three time smaller than the balanced NKJP core corpus, because it represents only the last decade. Users looking for larger, not necessarily balanced, collections of texts will also have at their disposal an extensive corpus consisting of all the collected data, mainly contemporary press. Reference corpora of other languages have a similar structure, e. g. the synchronous corpora of the Czech National Corpus from the SYN family, about 100 million words each.

SEARCH IN THE CORPUS. WORDS, GRAMMATICAL FORMS. FREQUENCY AND COLLOCATONS

The search engine of the Corpus of Contemporary Polish Language is similar to the one used in Korpusomat - a tool for creating searchable morphosyntactically tagged corpora based on MTAS (Multi-Tier Annotation **Search**). The search system is a bit different from Poliqarp search in the NKJP, it is certainly simpler, and allows not only to search for words and structures, but also to group the results in frequency order.

The corpus was automatically enriched with extensive grammatical annotation: both inflectional and syntactic. The annotation allows to search for a grammatical form, a given lexeme i any form (lemma), as well as for grammatical classes and the values of grammatical categories (independent of a given lemma), or for direct syntactic dependence in a specific syntactic phrase.

To find a single orthographic form it is enough to type it in the search box, e. g. *szukajmy* 'let's search'. The form occurs 38 times (0.37 per million words). If we look for all forms of a lexeme: here the verb SZUKAĆ, we must build a query in CQL (Corpus Query Language) syntax: [base="(szukać)"]. There are 24648 occurrences. There is no need to learn CQL syntax, a windows query builder is available. In the box "Segment attribute" , it is possible to select: a text form (e. g. szukajmy), base form (e. g. SZUKAĆ), part of speach, values of grammatical categories, syntactic structure, or name entity.

In the same column, we can select appropriate values for grammatical categories independently of a specific word. Instead of the imperative *szukajmy* we can we can search for any verb in 1st person pl. imperative [pos="(impt)" & person="(pri)" & number="(pl)"].

We are often interested with which words the searched word or constructions collocate most frequently, what context is characteristic of them. There is no separate collocation box in KWJP or in Korpusomat. To find it out, we must use the Result Grouping. To search for the right side substantive collocation of SZUKAĆ 'to look for' we build the query: [base="(szukać)"][pos="(subst)"] and group results by lemma. The most often we search for: work (PRACA), help (POMOC), something (COŚ), answer (ODPOWIEDŹ), and way (SPOSÓB).

Statistical data from the entire corpus, a frequency list of lemmas and N-grams is available on the corpus web site. The frequency list of contemporary Polish is an important material for teachers, lexicographers and linguistic engineering specialists.

SYNTAX AND NAMED ENTITIES SEARCH

An important and unique function of the KWJP is the syntactic analysis which we are really proud of. Each sentence is provided a dependency tree interpretation with phrases (components) usually subordinated to the main verb (predicate). One can get a visualization of syntax trees by clicking on the five-pointed symbol next to the sentence with the word you are looking for. It is possible to use syntactic features as a search condition and combine them with lexical or grammatical search. There are 10 types of phrases to choose in the Query builder > Syntactic Constituent: adjectival phrase (AdjP), adverbial phrase (AdvP), clausal phrase (CP), nominal phrase (NP), numeral phrase (NumP), prepositional-adjectival phrase (PrepAdjP), prepositional-nominal phrase (PrepNP), quasi-sentence (QS), sentence (S), or verbal phrase (VP).

Using this function we can search once again and more precisely for grammatical objects of the verb SZUKAĆ:

[head.lemma="(szukać)"&pos="(subst)"&case="(acc)"]. The result list is a bit different from the result of the simple query [base="(szukać)"][pos="(subst)"], it contains typical objects of SZUKAĆ, as

KTOŚ 'somebody' or CZŁOWIEK 'a man', as well as some time adverbials in accusative: CZAS 'some time' or ROK 'a year'.

Another object we can search for in the corpus are proper names of various kinds. We open the Query builder > Named entity window, then select: date, time, geographic, organization, personal or place names (place names are substantive names of nations and derived adjectives). The search for the combination of a preposition NA and a geographical name: [lemma="(na)"]<ne="(geogName)"/> gives among the other results 2594 combinations: *na Ukrainie* / *na Ukrainę* "in/to Ukraine".

W Ukrainie is still less frequent: 59 hits, *do Ukrainy* - 59. But this prepositional government is changing. The debate about prepositions with names BIAŁORUŚ and UKRAINA started only at the end of the period covered by the corpus (Łaziński 2022). The opinion of the Council of Polish Language which admitted prepositions W and DO as equal to the preposition NA and encouraged people to use the first two forms, was published only in 2022.

CORPUS BASED CHARACTERISTICS OF THE VOCABULARY OF THE DECADE 2011-2020

We assume that thanks to the genre and thematic balance, KWJP reflects the sense of use of an average Polish speaker. To some extent, it also reflects average knowledge about the world, its linguistic image, the most important events from 2011-2020, changes in customs, culture, media and technology. It this decade some words occurred in the corpus for the first time or (most of them do not need a translation into English): SMARTFON, DRON, TWEET, SELFI, LAJK ' a like in social media', KRYPTOWALUTA 'cryptocurrency', INFLUENCER, FANPAGE. New political notions appeared: MIESIĘCZNICA (commemoration of the Smolensk catastrophe every month), SYMETRYSTA 'somebody who believs that every negative phenomenon associated with one political camp (Law and Justice) has an equally negative counterpoint on the other side 'democratic opposition', TOTALSI 'a total opposition), PRAWAK and PRAWACTWO 'right-winger and their ideology' LRWAK 'leftist' emerged much earlier). New feminatives were created or reintroduced after a hundred years, e. g. GOŚCINI 'female guest', not to mention slang words or rich Covid vocabulary, such as compounds with the element KORONA-, e.g. *koronaparty* in 2020.

It is also worth comparing the frequency of every day use words in NKJP and KWJP. It may say something about the change in our customs and way of life. The three most common dinner dishes in KWJP are 1. PIZZA, 2. KEBAB, 2. KOTLET 'cutlet', in NKJP they were: 1. PIEROGI 'dumplings\, 2. KOTLET, 3. PIZZA. The most media devices werre in the NKJP 1. TELEWIZJA/TV, 2. TELEFON (including mobile phones since the 1990s), 3. KOMPUTER. In the KWJP the rank is different: 1. TELEFON, 2. TELEWIZJA, 3. KOMPUTER.

Of course, the above data say something more than just about reality (the corpus is not a statistical yearbook). They say us something about the linguistic image of the world and how language changes.

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ADAPTIVE STRATEGIES OF TRANSLATING ENGLISH PHRASES INTO UKRAINIAN: CASE STUDY OF CIVIL PROTECTION

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Keywords: adherence, cultural sensitivity, civil protection, clarity, collaboration, linguistic adaptation, terminological consistency.

In an increasingly interconnected world, effective communication is vital, especially in critical fields such as civil protection. Whether it's emergency response protocols, safety guidelines, or disaster management plans, accurate translation plays a pivotal role in ensuring that information is comprehensible and actionable across linguistic boundaries. When translating data, we frequently encounter the dilemma of whether the material should be translated literally. If one obtains clear replies in cohesive phrases, it may be easier to translate word for word, albeit single words may pose difficulties [2]. Translating civil protection English phrases into Ukrainian requires not only linguistic proficiency but also a deep understanding of cultural nuances and the context of the target audience. This research delves into adaptive strategies that facilitate this complex translation process.

Translating civil protection phrases involves more than just substituting words from one language to another. It requires translators to be acutely aware of cultural differences and sensitivities. Understanding the societal context of both languages is crucial for ensuring that the translated phrases resonate with the target audience in Ukraine. For instance, idiomatic expressions or metaphors used in English may not have direct equivalents in Ukrainian and may need to be adapted to convey the intended meaning effectively. English: “Stay informed and stay safe.” Ukrainian Translation: “Будьте поінформовані та залишайтеся в безпеці. “In this example, the English phrase employs a common idiom (“stay informed”) to encourage people to remain updated on relevant information. When translating into Ukrainian, the translator may need to adapt the expression to ensure cultural relevance while conveying the same message effectively.

Civil protection terminology is highly specialized, comprising terms related to emergency response, disaster mitigation, and risk management. Maintaining terminological consistency across translations is essential for clarity and coherence. Translators must rely on established glossaries and terminological resources to ensure accuracy and consistency in their translations. Additionally, adapting technical terms to suit the linguistic conventions of Ukrainian while preserving their precise meaning is imperative for facilitating understanding

among stakeholders. English: “Emergency evacuation procedures [1].” Ukrainian Translation: “Процедури невідкладної евакуації.” Here, the translator ensures that the specialized term “emergency evacuation procedures” is accurately rendered in Ukrainian to reflect the specific protocols involved in evacuating individuals during emergencies.

English and Ukrainian belong to different language families and exhibit distinct grammatical structures and syntax. Translators need to adapt English phrases to align with the grammatical rules and syntactic patterns of Ukrainian to ensure grammatical correctness and natural flow. This may involve restructuring sentences, adjusting word order, or employing different grammatical constructions while retaining the original meaning and intent of the text. English: “In the event of a natural disaster, seek shelter immediately [4].” Ukrainian Translation: “У разі природної катастрофи негайно шукайте укриття.” The translator adjusts the sentence structure and word order in the Ukrainian translation to align with the language's syntactic patterns while preserving the original meaning of the instruction.

Effective translation in the field of civil protection often requires collaboration between translators, subject matter experts, and stakeholders. Consulting with domain experts ensures the accuracy and relevance of translated materials, particularly when dealing with specialized technical content. Collaborative efforts also enable translators to address challenges and ambiguities effectively, leading to more accurate and culturally appropriate translations. English: “Review the emergency response plan with stakeholders [3].” Ukrainian Translation: “Перегляньте план реагування на надзвичайні ситуації разом із зацікавленими сторонами.” In this example, the translator may collaborate with subject matter experts to ensure that the translated phrase accurately reflects the collaborative nature of reviewing emergency response plans with relevant stakeholders.

In conclusion, translating civil protection English phrases into Ukrainian demands a nuanced understanding of language, culture, and context. By employing adaptive strategies such as cultural sensitivity, terminological consistency, linguistic adaptation, clarity, collaboration, and adherence to legal standards, translators can effectively bridge linguistic barriers and facilitate communication in the realm of civil protection. Ultimately, accurate and accessible translations are essential for ensuring the safety, security, and resilience of communities in Ukraine and beyond.

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APPLICATION OF AUGMENTED REALITY TECHNOLOGIES FOR FOREIGN LANGUAGES LEARNING

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Modern methods and innovative technologies help and facilitate the transfer of knowledge to students, as well as motivate and increase interest in learning subjects. Nowadays, there are many approaches to using augmented reality (AR) technology in education. Such educational systems can be divided into three main groups: visualisation of 3D images for a clear presentation of educational material; recognition and labelling of real objects that are oriented in space; interaction of a virtual object built by a computer or smartphone with a person in real time. Let's consider the concept of augmented reality and focus on the application of augmented reality technology in the educational process to increase students' cognitive interest in learning.

Augmented reality (AR) is the augmentation of the physical world with real-time digital data. AR uses the environment around us and overlays some virtual information on it, such as graphics, sounds, and touch responses. [1]

Augmented reality (AR) improves the learning experience and helps students to prepare better for the future. It is also good for traditional pedagogy that focuses on technical knowledge and skills. Despite AR is in its infancy in Ukraine, especially compared to virtual reality (VR), it offers more beneficial options for students. The relative continuity of digital objects in the "real world" encourages interactivity and engagement. This, in its turn, maximises the ability of students to spend their time learning about their subjects, as well as minimising the time spent learning how to use the new technology. AR technologies give students the opportunity to deepen their knowledge in several areas, including reading, number work, spatial concepts, gaming, content creation, real life and scenarios. This can include everything from guided tours to training in various professions. [2]

Analysing the material on this topic, we can make the following classification of augmented reality technologies for learning: AR apps; AR books; AR magazines; AR tutorials; AR textbooks; 3D colouring books; AR maps, globes, etc. [3]

The use of various digital resources and applications in foreign language teaching has received a lot of attention in the scientific literature. In particular, among the most popular aspects covered in the literature are the use of mobile technologies [3], various Internet resources and applications [2]. In particular, it is popular to consider electronic platforms for learning foreign languages such as Duoingo, or resources or applications for creating interactive exercises such as Learning Apps, Wordwall, etc. Recently, there have been more and more

publications devoted to the use of augmented reality technologies, but their didactic potential remains not fully explored.

One of the augmented reality applications is Metaverse Studio. The Metaverse Studio app is free and easy to use thanks to its intuitive interface, as well as the tutorial videos on how to use the software on the official YouTube channel. To make the application easy to use, content should be created on a desktop computer, while a mobile version should be offered to users.

The creation of educational content in Metaverse Studio is diverse and allows for study of phonetics, vocabulary, grammar, and the teaching of four types of speech activities. The application allows you to integrate the functions of Theory and practice of modern science surveys, or creating a media wall, which are useful in the implementation of project activities of the subjects of the educational process. In addition, the app allows you to use YouTube videos, add various photo, audio, and video scenes aimed at implementing storytelling technology and, together with the function of using various objects, allows you to create a series of games and quests (puzzle game, trivia game), etc. The application's capabilities and functional characteristics contribute to its versatility in the context of foreign language teaching and indicate a valuable didactic potential that requires further empirical research. [1]

Augmented reality is one of the newest technologies that can help to modernise and make the learning process more interesting. The use of augmented reality applications in foreign language teaching demonstrates flexibility and multifunctionality, as it can be aimed at developing both language skills and speaking skills. In addition, the applications demonstrate the possibility of integrating various educational technologies, such as storytelling, which increases both the motivation to master foreign languages and affects the level of results of the subjects of the educational process.

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APPROACHES OF TRANSLATION OF HYPERO-HYPONYMIC LEXEMES IN MILITARY TEXTS

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The thesis examines the requirements for approaches of translation of hypero-hyponymic lexemes in military texts.

Keywords: translation, hypero-hyponymic lexemes, military text, linguistic, terminology, translation of military terms, hyponymic relationships, hypero-hyponymic groups, hyponymy, military translation, theory of military translation.

In today's world, military texts play an important role in ensuring security, waging war, and resolving conflicts. Let's assume that an important strategy for translating hypero-hyponymic lexemes in military texts is to preserve their military character and specific meaning. For example, the term "combat operation" can have significant military significance, which is reflected in the strategy or tactics of conducting combat operations. It is important in translation to convey not only the term itself but also its military meaning and context of usage.

The expediency of studying hyponymic relationships of linguistic units in the semantic field is determined by the fact that hyponymy as an independent lexical-semantic category plays a very important role in the process of systematizing the lexical system of the national language in general and specialized subsystems in particular.

The study of hyponymic relationships of linguistic units in the semantic field is justified by the fact that hyponymy, as a fundamental paradigmatic semantic relation, plays a crucial role in structuring the lexical composition of a language. Based on hyponymy, lexical units are grouped into thematic and lexico-semantic groups and fields. It is precisely because genus-species relations prevail in the lexical-semantic system, the predominant type of oppositions here is inclusive, i.e., the relation between the weak (unmarked) and strong (marked) components. This provides the lexical-semantic system with a dominant-subordinate hierarchy (sequential inclusion of lower-level words into higher levels) [2, p. 12].

Genus-species relations literally permeate the military subsystem. In the studied sub-language, a certain number of genus-species groups of military terms are distinguished: names of military equipment, vehicles, devices; names of weapons; names of military structures; names of ammunition. As evidenced by the schema, hypero-hyponymic relations can be characterized as privative-equivalent, as there is a certain syncretism of relations between units of the hypero-hyponymic lexical paradigm - specifically, privative at the "hyperonym -

hyponym" level and equivalent at the "hyponym - co-hyponym" level, which we will illustrate using examples from the studied groups of military lexicon.

Names of weapons, ammunition, and structures in intra-systemic connections function either as hyperonyms or hyponyms, depending on the semantic scope of the lexical unit.

Also important is careful attention to terms that may have double or multiple meanings. For instance, the term "defensive line" can be used to denote a specific military defensive line or more generally to describe strategic defense. The translator should carefully analyze the context and choose terms that accurately convey the military meaning in the translation.

Hyponyms act as hyperonyms, creating hypero-hyponymic groups at the lower level of generalization. For example, the term "weapons" has hyponyms such as "service," "civil," and "combat," with "combat" being a hyperonym to hyponyms like "firearm" and "cold weapon." The lexical combination "firearm" enters into genus-species relations with lexical combinations like "rifled firearm" and "smoothbore firearm."

Each of the mentioned hyponyms acts as a hyperonym concerning concepts of lower levels of abstraction, such as "pistol," "rifle," "carbine," "automatic rifle," which also have species-level concepts like "barrel," "trigger mechanism," "trigger."[3, p. 260].

Additionally, it is important to consider the structure and style of military texts. They often use specific idioms, abbreviations, and acronyms that may be unclear to non-professional readers or translators. The translator should be familiar with these characteristics and be able to convey them in the translation while maintaining the style and professional character of the text.

Finally, using quality translation tools such as specialized translation software and terminology resources is important. They can help find appropriate terms and equivalents, as well as ensure consistency in the use of terms throughout the text.

The hypero-hyponymic paradigm in military terminology has its peculiarities in translation. One of the key tasks in translation is to preserve the thematic and hierarchical structure of terms to convey their accuracy and specificity. When translating hypero-hyponymic relations, it is important to consider the context of term usage in military texts, their military nature, and other aspects that determine their semantics [1, p. 67].

Researching these relationships is also significant for the translator because it helps understand and reproduce not only the surface meaning of terms but also their deep structure and interrelation with other terms within military terminology. Such an approach contributes to accurate and clear translation of military terms and expressions, ensuring their faithful interpretation and reproduction in the source language text.

In conclusion, translating hypero-hyponymic lexemes in military texts requires a comprehensive approach that includes analyzing the context, using

specialized terminology resources, consulting with experts, and preserving the military character and style of the text. These approaches will help ensure the accuracy and clarity of the translation of military terms and expressions.

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BUILDING THE ENCYCLOPEDIA OF SLAVIC LANGUAGES AND LINGUISTICS

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The text provides an overview of the *Encyclopedia of Slavic Languages and Linguistics* (Brill Publishers), which has been in preparation since 2015 and incrementally published since 2020 in its online edition (ESLO) [1]. A print edition (ESLL) is planned for 2025. The overview is divided into 3 topics plus a conclusion: (1) INTRODUCTION, describing the context of Brill's language publications, the goals of the ESLL/ESLO project, and the history of the project; (2) CONTENT, presenting an overview of the coverage of the reference work, including highlights of Ukrainian and Ukrainian-related contributions; (3) PROBLEMS AND SOLUTIONS, discussing notional issues such as open vs. closed access as well as specific difficulties encountered in the project.

Brill Publishers, established in 1683 in the university town of Leiden, Netherlands is one of the oldest European publishers, known for its focus on philological publications involving complex multilingual and multi-script typography. In the 21st century, the publisher has undertaken several large-scale, comprehensive language and language-family references, including those devoted to Ancient Greek, Arabic, Chinese, Hebrew, Turkic, and Formosan, as well as the ESLO.

The ESLO was organized in 2015, its first commissions were made in 2016, and the first online entries were published in 2020. The print edition will be published in 2025 and the ESLO will be updated indefinitely. The ESLO is planned to be the largest and most comprehensive reference devoted to Slavic languages and linguistics, with some 400 entries and ca. 2 million words. The editorial team of ESLO/ESLL is international, including the author of this report and the editor-in-chief (USA), general editor Lenore A. Grenoble (USA), technical editor Mariya Mitova (Bulgaria), and associate editors Stephen M. Dickey (USA), Marek Łaziński (Poland), Mikhail Oslon (Poland), Masako Ueda Fidler (USA), Mladen Uhlik (Slovenia), Björn Wiemer (Germany). More than 300 authors have contributed from 37 countries in Asia, Europe, and North America. Adjusted by the ratio of the number of authors to the population of the countries in which they work, the top seven contributing countries are Slovenia, Montenegro, Croatia, Bosnia and Herzegovina, the Czech Republic, Macao, and Switzerland. It goes without saying that authors are represented from every country in which Slavic languages are spoken and or/official languages.

The content of the ESLO is organized into 12 thematic groups: 1. Languages of the Slavic family: structure and history; 2. Theoretical approaches; 3. Phonetics and phonology; 4. Grammar and semantics; 5. Lexicon and lexicography; 6. Discourse and pragmatics; 7. Diachrony and diatopy; 8. Writing and writing traditions; 9. Sociolinguistics and the political status of languages; 10. Language contact, multilingualism; 11. Language acquisition; 12. Special and interdisciplinary topics. The editors have made a special effort in working with authors to promote equal rights and representation of all Slavic languages in the content of articles. This means aiming for coverage of representative material from languages from all three branches, especially in overview topics. Additionally, traditional tacit assumptions that, e.g., Russian stands for all (East) Slavic and erstwhile Serbo-Croatian for all Western South Slavic languages have been consciously avoided. Many contributions treat minority Slavic languages, dialect variation, as well as Slavic languages in contact with others.

Ukrainian and Ukraine-related contributions to ESLO include entries, e.g., by Andriy Danylenko [2–4], Michael Moser [5], Lada Bilaniuk [6]. Of special note are interdisciplinary topics by Kyiv-based archaeologists [7, 8], the latter item being cross-referenced with a related language-focused special topic [9].

Among dilemmas encountered include the notion of the closed-access nature of the project. The editor-in-chief has been a longtime advocate for open access [10], but he took on the project nevertheless, since creating a reference work of this scope would be impossible without the resources available through a publisher such as Brill. Additional challenges have been posed by the worldwide pandemic beginning in 2020 and the war against Ukraine since 2022. These challenges have delayed the original target dates for publication. Obstacles have been overcome through the flexibility and creativity of the editors and the staff of the publishing company.

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CHATGPT'S HALLUCINATIONS, OR WHOSE SON IS VALERIAN PIDMOHYLNY?

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The history of ChatGPT begins with the idea of developing artificial intelligence systems capable of understanding, analyzing, and responding to people's questions identically to how a human does. The initial steps in creating ChatGPT were associated with the development and training of machine learning models on vast amounts of data. OpenAI released a pre-sale demo version of ChatGPT on November 30, 2022, and the chatbot quickly spread across social networks [1]. Millions of users began actively sharing examples of how well it responded to their requests. Founded in 2015 by Elon Musk, Sam Altman, and others, OpenAI has been at the forefront of AI research, producing several groundbreaking models such as GPT-2, GPT-3, and eventually ChatGPT [1]. They conduct research in a variety of areas related to AI, including machine learning, computer vision, natural language processing, and robotics.

The goals of OpenAI state their goal as developing and promoting friendly AI in a way that benefits all of humanity. From the start, OpenAI has placed significant emphasis on ethical considerations within human-computer communication [5]. Their mission revolves around advancing and advocating for AI that is friendly and beneficial to humanity as a whole. The task is to promote AI systems that empower humanity to reach its full potential through increased intelligence and cognitive capabilities, while also prioritizing alignment with human values and the safe, responsible development of this technology [5].

The results of using ChatGPT covered a wide range of written communication, including generating high-quality essays, creating travel plans, writing fables, poems, and computer programs. Within the first five days, the chatbot engaged with over one million users who were entirely satisfied with the quality of communication. Present aspects of ChatGPT performance include the following: language generation, question answering, text completion, language translation, summarization.

Surprisingly enough, ChatGPT appeared to be effective in many languages. The list of languages to communicate with ChatGPT- 4 and the degree of communication accuracy are presented in Fig. 1.

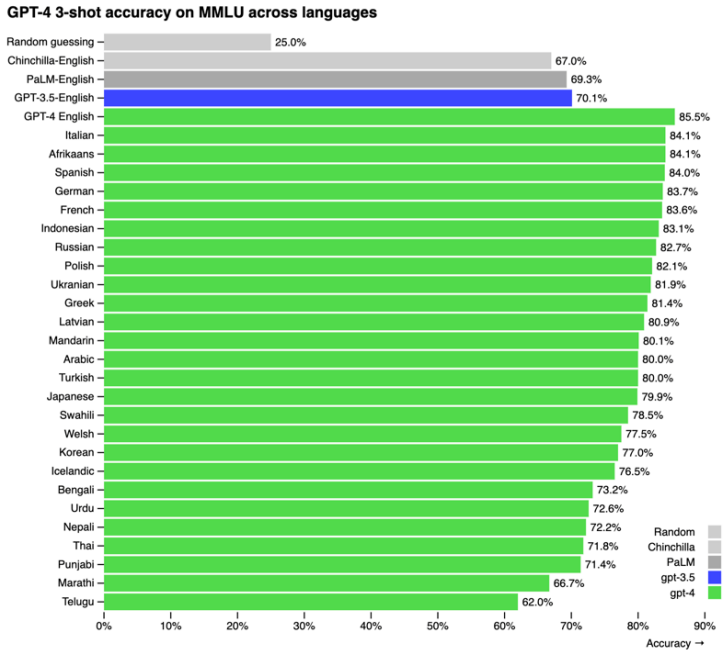

Figure 1 – Number of Languages in GPT 4 [3].

As evident from Fig,1, the accuracy of processing for the Ukrainian language is quite high, reaching nearly 82%.. This provides grounds to consider the generated Ukrainian-language text as readable and comprehensible.

Unlike GPT-3.5, GPT-4 is a large multimodal model. It can accept text and images as input and returns text (GPT-3.5 only accepts text inputs). Image inputs are still a research preview and not publicly available. GPT-4 can, amongst other things, summarise articles, answer questions and solve mathematical problems not only in English but in other languages too. In many cases, the non-English GPT-4 outperforms English GPT-3.5 [5].

Despite significant progress in all areas of text generation, the conducted research has revealed a considerable number of informational errors, known as "hallucinations" [4] in dialogues between ChatGPT [2] and users on topics related to Ukrainian culture and literature, as well as the activities of prominent Ukrainian cultural figures of the 19th to 21st centuries, such as Ivan Franko, Lesya Ukrainka, Valerian Pidmohylny, and Kuzma Skryabin. Mistakes regarding origin, parental information, birthplaces, educational institutions, and university courses obtained by famous Ukrainian cultural figures have been documented in ChatGPT's responses. At times, the information provided by ChatGPT is so distorted and

twisted that it barely resembles the truth. Here's what the chatbot produced in response to a query about the family of the renowned Ukrainian writer of the early 20th century, Valerian Pidmohylny:

Валер'ян Підмогильний (1891–1937) був українським письменником і поетом. Його справжнє ім'я — Майкл Федорович Косач. Він народився у Львові в родині відомого письменника та художника Ольги Кобилянської і Федора Косача [2].

In the excerpt above, all the information provided is erroneous, including the year and place of birth and the names of the parents. The only accurate detail is the year of death. Similar mistakes have been noticed in the majority of received responses. This indicates that users of ChatGPT seeking reliable information about Ukrainian culture and arts will receive significantly inaccurate data.

Since even the developers of language models cannot clearly explain the mechanisms behind such hallucinations [4], the only way to address them is through continuous training of the chatbot and correcting mistakes. Such training and correction of irrelevant information have become the subject of educational practice for students specializing in Applied Linguistics at Volyn Lesya Ukrainka National University.

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UDC

GENERAL STRUCTURAL-SEMANTIC AND COGNITIVE PRINCIPLES OF EXAMINATION AND IDENTIFICATION OF SPECIALIZED NOMENCLATURE
(Based on the material of chemical safety terms)

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In modern conditions, the most important function of science in the field of chemical safety is the development of scientific principles for researching and assessing current emergency situations, the development of criteria for evaluating the technogenic-environmental situation, material means for conducting operational actions, the justification of prospects for the development of theory and practice of operational actions, and the direction of training chemical protection units..

Clear and consistent terminology in this field facilitates the training and preparation of chemical safety specialists, contributing to a better understanding of concepts and procedures. If the terminology is accessible and understandable, citizens can respond more effectively to instructions and guidelines, as "it is fundamentally important to increase resources for effective response and mitigation of the consequences of biological emergencies that impact people and their living environment as a whole" [Kurdil 2021: 3].

The terminology of chemical safety represents concepts related to accidents (catastrophes) at enterprises, transport, and pipelines, caused by both military and civilian factors, which may involve the release (spill) of hazardous chemical substances into the atmosphere and surrounding areas..

The object of observation includes English terms and terminological phrases selected from specialized literature, including textbooks containing recommendations and instructions on behavior and measures in radiological and chemical threat situations: Analysis of Biotoxins Final Report (Scientific Advisory Board's Temporary Working Group), SAB/REP/1/23, April 2023; Chemical, biological, radiological, and nuclear (CBRN) in VBSS training April 2021; Handbook on assistance & protection against chemical warfare agents, Defence Science & Technology Organization (DESTO); 2020 Emergency Response Guidebook, 2020 / J. J. Keller & Associates, Inc.

The **relevance** of studying the continuum of civil safety and the cognitive-semantic space of related terms is beyond doubt, as the study of the structural-semantic, cognitive-discursive, and motivational foundations of the creation and functioning of chemical safety terminology reflects new trends in the study of

linguistic and conceptual worldviews, conceptospheres, and thematic groups of sectoral terms in specific languages.

In some lexicographic works, special terms denoting the rescue sphere – fire, medical, technical, chemical, and water – are presented. The materials of the dictionary can be particularly valuable "in preparation for rescue operations and field training; the dictionary includes various communicative situations that enable communication with victims, etc." [Ratownictwo 2006: 5]. Another positive Ukrainian experience includes reference materials regarding chemical threats, specifically including "the algorithm of initial actions and measures in the event of biological and radiation incidents" [Chemical Safety. Rescuer's Guide 2021: 3].

Given the above, the structural-semantic properties of English terms related to chemical and radioactive contamination within the semantic opposition of contamination and decontamination require closer attention, using new methods of linguo-statistical and quantitative analysis and incorporating elements of the cognitive approach.

Cognitive terminology focuses on the role of terminology in scientific cognition, primarily associated with defining the epistemological function of terms in the system of knowledge and studying the impact of terminology (its orderliness, systematization with concepts and conceptospheres within specific terminological groups and frames). Several studies note such functions of terms as recording, preserving, and transmitting knowledge (instrumental function), as well as heuristic and its variety – system-forming function [see more in Sadovnikova 2016: 26].

In the context of the proposed approach to the cognitive specificity of chemical safety terms, attention should be paid to models of their combinability, relative and absolute frequency. Concept fields with key verbalizers such as biotoxic, radiological, radiation, hazard, risk, protection, security, emergency, disaster, evacuation attract attention. A comprehensive analysis should be conducted considering the component composition of terms, word-formation methods, taxonomic links, and thematic groups, identifying connections both within intra-industry and inter-industry terminology (military, ecological, radiological, medical, physiological, legal), tracing the specificity of various conventional signs, including chemical hazard warning signals (chemical alarm).

It should be noted that chemical safety terminology is a subsystem of English literary language vocabulary. Such types of semantic relationships as synonymy, antonymy, polysemy, homonymy, as well as affixation, compounding, and abbreviation in the terminological system find specific realization alongside general linguistic trends (contextual intra-system synonyms, functioning of synonyms in nomenclature, quantitative and qualitative composition of paradigms, etc.), knowledge of which is necessary for the normalization of terminology.

It was also found that the largest number of antonymic terminological units are two-component terms-phrases (54%). The presence of antonymic-synonymous relations in the analyzed term system was recorded in common root (24 pairs, 48%) and different root (26 pairs, 52%) antonym series. According to the morphological criterion, adjectival antonym pairs predominate (42%), adverbs and numerals are the least detected (1 each). Contradictory and vector-type antonym terms are represented much more than complementary and contrary ones.

Cases of term synonymy and metaphorization are rare. Eponyms were not found either.

Morphological derivation is represented by affixation, compounding, and abbreviation. The specificity of term formation in chemical safety compared to nomination in common and other scientific fields lies in the regularity and productivity of certain methods and models. The structure of the categorical-conceptual apparatus of chemical safety determines the choice of literary language word-formation means (both English and Ukrainian) that optimally express the semantic basis of science and relevant categorical meanings in verbal form.

Among word-forming morphemes, suffixes are noted for their highest degree of abstraction and are attached to the base to formally express the derivative's belonging to a specific onomasiological category (attributiveness, objectness, processuality), as well as to express a specific word-formation meaning. Some terms exhibit broad semantic-thematic and conceptual connections with the nomenclature of the safety continuum and rescue concepts, such as hazard – hazardous, danger – dangerous, flame – flammable, etc.

Compound names as a method of chemical safety nomination are highly productive at the current stage of terminological system development. Presented term-phrases include such structural types: two-component, three-component, four-component, multicomponent. Within structural types, structural models are distinguished, the number and complexity of which depend on the number of term components.

In total, 505 terminological units of chemical protection were transferred from related fields for the nomination of concepts of civil protection. The terminologies of these fields (military affairs, jurisprudence, chemistry, law enforcement) are closely related to the terminology of the field of chemical protection, and a large number of concepts in these terminologies are contiguous

The main principle of constructing compound names is the specification of the main component using qualitative, comparative, and parametric indicators. A fairly large group of terminological names in terminological phrases and analytical names, abbreviations, form cognitive structures such as partitives, destinatives, and caritives. Each of them requires separate consideration from the standpoint of structural-motivational principles and the internal form of the term.

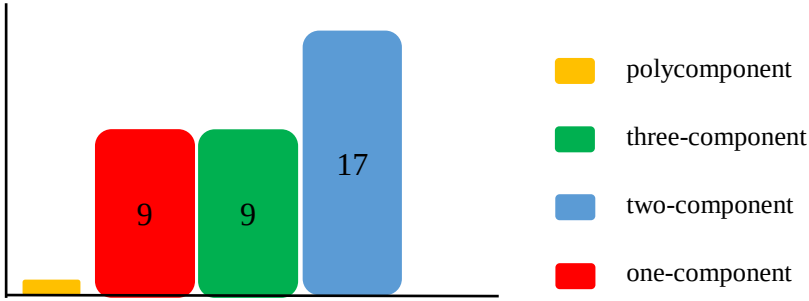
Classification of terminological nomenclature by thematic groups is one of the most common techniques for studying vocabulary and a universal method of its study.

Within the chemical safety term system, we have identified the following **thematic groups**: items and equipment (clothing and its elements): individual protective equipment, protective suit; emergency situations: emergency, protect, hazard, threat, measures, evacuation, sheltering, etc. The key term here is emergency. Similar situations require immediate actions, so this term system includes concepts denoting: warning signals and measures to protect the population from threats and risks; special groups, emergency services (response team), precautionary measures, names of special protective clothing – protective clothing; personal protective equipment and rescue medical measures; chemical terms, substances, toxic and flammable materials.

The specificity of the chemical safety term system is that the group of terms is formed by such sub-branches of terms: general safety: hazardous, hazard symbol, hazard information, hazard classification, severity of the hazard, scene of hazard, hazard screening, explosion hazard, etc.; safety, waste, materials, fire sector: hazard class, fire hazard, blast hazard, projection hazard, hazardous waste, hazardous level, hazardous substance, hazard area, hazardous material, environmental hazards, etc.; biological safety/medicine/toxicology: radiation hazards, potential inhalation hazard, chemical hazard, vapor hazards, liquid hazard, downwind hazard, toxic chemical, highly toxic, organ toxicity, aquatic toxicity, toxic properties, toxic components, extremely toxic, toxic materials, toxic gases, toxic environment, toxic effects, toxic agents, mechanisms of toxicities, toxicity assays, similar toxicity, chronic toxicity, acute toxicity, dermal toxicity, toxic psychosis, toxic shock syndrome, reproductive toxicity, toxic solid, toxic liquid, toxic substance, toxic inhalation, etc.

For example, we analyzed the distribution by the number of components: one-component terms – 1 (hazardous – dangerous); two-component terms – 43 (radiation hazards – radiological hazard); three-component – 6 (potential inhalation hazard); toxic shock syndrome. This distribution confirms the general tendency for the prevalence of two-component term combinations in the composition of English terminological vocabulary.

Based on the manual "Chemical, biological, radiological, and nuclear (CBRN) in VBSS training," terminological units within the thematic group materials and weapons (terms denoting radioactive emissions, radiation, radiation sources, equipment for measuring radiation and protecting against it) were distributed according to component composition and other structural features: monolexemes – 9 terms, terminological phrases – 27, including two-component – 17, three-component - 9, four-component - 1), shown on the following chart:



Two-component terms (adj. + noun) – 14 terms; two-component terms (noun + noun) – 3 terms. Here are examples of specific models of polycomponent structures:"Radiation isotope identification device allows emergency services to determine the source of radiation contamination" (Mod+N+N+N); model (Adv+V+N): "After the accident at the nuclear power plant, radioactively contaminated products were discovered.".

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INNOVATIVE APPROACHES AS A TOOL FOR PROFESSIONAL FOREIGN LANGUAGE TRAINING OF FUTURE CIVIL DEFENCE SPECIALISTS

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In the dynamic world, where crises can transcend borders in mere moments, proficiency in foreign languages for civil defenders in Ukraine and in the world is no longer just a desirable skill but an indispensable asset. As the world faces increasingly complex security challenges, the demand for highly skilled civil defence specialists proficient in multiple languages continues to rise.

Nowadays innovative techniques and tools offer opportunities to enhance the proficiency and effectiveness of foreign language training for future civil defense specialists. Ukrainians should adapt innovational approaches on their way to EU and NATO in order to align their educational programmes.

Let us consider closely the potential of innovative approaches in shaping the education and training of tomorrow's civil defense professionals. By exploring the latest trends and advancements in language learning technology, we can observe how these tools are adjusting traditional pedagogical approaches, empowering learners to navigate linguistic barriers with confidence and precision.

Observe this at the example of Estonian academy of security sciences. The Estonian Academy of Security Sciences (EASS) is a unique educational institution in Estonia, as it specializes in the country's internal security. It offers a wide range of educational programs, including vocational and applied higher education, master's degrees, as well as the opportunity to engage in research and scientific development in parallel with education. In addition, the Academy organizes preliminary training in high school, which allows students to identify their interests in advance and prepare for a career in internal security.

The implementation of Content And Language Integrated Learning (CLIL) at the Estonian Academy of Security Sciences began ten years ago, and then, as now, it was considered an innovative and effective approach to integrating subject knowledge and foreign language learning. CLIL is implemented with a dual purpose: to increase the level of foreign language proficiency and to expand the professional vocabulary of students. This approach also helps to save class time, as both the subject and the language are taught simultaneously. CLIL was first introduced in Estonian educational institutions in the 1990s, primarily at the primary and secondary school levels, but later it spread to higher education [1, p.155].

All language projects implemented in 2018-2023 at the Academy's language center used the tandem approach, which is based on practical language learning between several native speakers in a non-classroom environment. These projects covered a variety of activities and formats, including language cafes, tandem language camps, online classes, field trips, work with bilingual guides, online and face-to-face language classes, individual work, and bilingual excursions. The goals of these projects were multifaceted. First, they were aimed at overcoming the language barrier by using the tandem method of language learning. Secondly, the projects aimed to increase the ability of applicants to communicate effectively in situations related to professional activities in different languages. In addition, the projects aimed to promote interdisciplinary cooperation between police cadets, engineering, social work, nurses, paramedics, and educators, as well as to develop the professional and language skills of the participants.

The topics and activities of the tandem language projects covered a wide range of professional and language skills. They included responding appropriately in crisis situations, communicating effectively in both languages with difficult clients, providing first aid instructions, communicating at the workplace level, such as describing a person's appearance, asking questions and giving directions, etc.

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LEXICAL ASPECTS OF TRANSLATION OF SLANG EXPRESSIONS BASED ON THE MILITARY FORCES GUIDE

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The thesis examines the requirements for translation and lexical aspects of slang expressions in the manuals for military personnel

Keywords: lexical aspects, military translation, slang expression, military term, method of translation, intercultural communication

The material for the study was based on lexical items (military terms and socilectisms) presented in dictionaries and glossaries “The Department of Defense Dictionary of Military and Associated Terms”, “Glossary of Military Terms” “How to talk about the War in Ukraine in English” and “The Military Has a Vocabulary All Its Own”.

The core of military vocabulary is made up of terms. Based on the definition of a term, we understand a military term as a word or a phrase that expresses a special concept of military science and technology and has a definition that reveals exactly those features of the concept that correspond to this field. Military terms are characterized by general linguistic features of terms,

such as:

1) adequacy (correspondence of the concept to modern scientific knowledge), unambiguity within a certain terminology system,

2) precision, brevity, logical semantics, presence of a definition, lack of expression and stylistic neutrality, independence from the context (with deviations allowed),

consistency [1].

Military terminology in special dictionaries and glossaries includes those terms that meet the following criteria [2]

1) incorrect coverage in a standard, generally accepted dictionary;

2) terminology that has a general military or related

(technical or highly specialized terms of general military significance);

3) terms for the designation of weapons.

It is important to take into account the difficulties caused by the difference in the grammatical structure of the languages when translating military terms from English into Ukrainian

The most common ways to translate military terminology are:

1) transliteration and transcription,

2) calquing,

3.) descriptive translation (explication),

4.) translation by analogy (selection of the necessary of one of several possible synonyms in the target language).

Based on the research conducted in the English-Ukrainian language pair, it was found that the most common way to translate military terms is transliteration and transcription, but only in cases where the term is understandable to the Ukrainian addressee, for example artillery - артилерія, NLAW - Нлоу, ,Patriot - петріот tank - танк, drone - дрон, genocide - геноцид, occupation - окупація.

Neologisms, even if represented by abbreviations and acronyms, can have several variants in the Ukrainian language, in particular PATRIOT is translated as ПАТРІОТ або ПЕТРІОТ.

Acronyms and abbreviations constitute a large layer of military terminology, usually reproduced by various

means and techniques, among which decoding the abbreviation and providing the Ukrainian equivalent dominate

and explication, for example:

1) IFV (infantry fighting vehicle) – БМП (бойова машина піхоти);
2) LOAC (law of armed conflict) - право збройних конфліктів;
3) SSORD (service support order) - наказ щодо забезпечення бойових дій,
4) ATACMS (Army Tactical Missile System) - армійська тактична ракетна система [3].

Conclusions.

Thus, due to the constant development and replenishment in the context of intensified intercultural contacts of the military, military vocabulary requires constant review of the existing equivalents and the selection of equivalents to neologisms. The selection of Ukrainian equivalents to English-language military terminology is based on traditional methods of translation:

- transliteration and transcription, calculation, descriptive translation (explication)
- translation (explication), direct inclusion, approximate translation

The choice of translation method is based on the prevalence and usage of the term in the Ukrainian context, and new concepts may have several synonymous equivalents.

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NEW APPROACHES TO TRAINING INTERPRETERS FOR THE STATE EMERGENCY SERVICE OF UKRAINE

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Teaching foreign languages today is going through a difficult period of reassessment of values, rethinking of goals, tasks, methods and unified conceptual approaches. Transformations in the political, economic, and cultural spheres of the state put forward new requirements for the training of translators capable of ensuring the development of interstate and interpersonal contacts at a higher and qualitative level.

The role of interpretors in today's modernized world is difficult to overestimate. They must have a sufficient amount of information and communication technologies when transferring information from their native language to foreign languages and, conversely, be able to make oral translation more effective, as this is required by the mass informatization of society.

From the point of view of psycholinguistics, translation is the fifth type of speech activity along with listening, speaking, writing and reading [1]. If speech and reading are perceptive, and speech and writing are reproductive, then translation is at the junction of these two types of speech activity and is defined as its receptive-productive type [2].

To teach oral translation means to learn to perceive and interpret a text in one language, to mentally form expressions with the help of internal speech, and to formulate it externally, that is, in another language.

According to the new educational and professional training programs for translators, the basis for the formation of various aspects of translation competence is: the ability to simultaneously carry out several actions (level management of activities), predict an informational message (the law of anticipatory reflection), establish an internal relationship between all segments of an utterance using verbal - articulatory stereotype, switch from one language to another (automate the operations of finding a solution to recoding the designation of the situation), apply the mechanisms of compression and decompression of linguistic means.

After successfully mastering the presented material, students will be able to provide translation support for various events of international cooperation.

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PECULIARITIES OF TRANSLATION OF ENGLISH PASSIVE CONSTRUCTIONS IN LAW TEXTS

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The adequacy of the translation is the correspondence of the translation to the original in its regulatory influence on the recipient. The adequacy of the translation is determined by extralinguistic factors and intralinguistic factors. The researcher points out that one of the dominant factors of translation adequacy is the text within which the translation activity takes place [1, p. 82-84].

The features of translation are determined by the type of original text: its genre and stylistic characteristics and presentation methods. Depending on the nature of the material being translated, there are:

• informational texts;
• documentary texts (trade and business) and scientific texts;
• socio-political texts;
• literary texts [2, p. 66].

Legal texts serve to convey information that is unambiguous and have a simplicity and clarity of presentation. These texts are characterized by the presence of special terms and terminological phrases related to the field of economics, which can cause certain difficulties in translation and require the translator to have special knowledge in the field of laws and realities.

The large difference in the use of the passive in English and Ukrainian creates difficulty for the translator. Passive constructions, like other grammatical forms, are subject to dependence from the context during translation. The passive English construction is usually translated into Ukrainian as follows:

• a similar passive construction in Ukrainian;
• indefinite personal phrase in the active voice with an addition in the accusative or dative case;
• active voice.

Particularly difficult when translating passive constructions are verbs formed by conversion, since this method of word formation does not have its equivalent in the Ukrainian language, and to preserve the figurativeness and expressiveness of such verbs it is necessary to introduce additional additional words [2, p. 66].

It should be taken into account that the English passive construction can often be conveyed not in one, but in several ways; the choice of the method of its translation should be toned by “considerations of style” [3,].

In law texts there are various forms of passive constructions, namely:

• 3 forms of present passive: Present Indefinite, Present Continuous, Present Perfect;

• 2 forms of past passive: Past Indefinite, Past Perfect;

• 1st form of the future tense passive: Future Indefinite;

• 2 forms of the future passive in the past tense: Future-in-the-Past Indefinite, Future-in-the-Past Perfect.

Other forms of passive voice are not used here.

The most common type of passive construction in the reviewed publications in English is the direct passive, where the subject of the sentence in the passive form corresponds to the direct object of the sentence in the active form. The fact that this type also exists in Ukrainian passive construction, allows the translator to use a translation method with a similar passive Ukrainian construction, which does not require resorting to significant grammatical transformation of sentences.

The main reasons for the use of passive structures in the considered law texts in English are the lack of need or impossibility to name the artist actions, as well as the division of the sentence and the desire of the writer to pay attention on the object, and not on the subject of the action.

Achieving adequacy of translation of passive constructions in law texts from English into Ukrainian requires the translator to take into account both the nature of the texts that serve to convey information in the field of economics and are logical and clear presentation, as well as differences in the grammatical structure of languages, which determines the variety of possible ways of its transmission.

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TECHNIQUES OF TRANSLATION OF CODE WORDS IN MILITARY TEXTS

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The thesis explores methods of translating code words in a military context.
Keywords: translation, method, code word, military text, military translation, security, abbreviation, adaptation, localization

In the military, providing the security and privacy of communications is critical to achieving mission objectives and strategic dominance. Codeword translation plays an essential role in military operations since it protects ways of communication from potential threats. Modern military operations require enhanced coding and encryption technologies that enable effective and safe information flow in a combat setting where the enemy may utilize a range of analysis and interception techniques.

This research explores various approaches and techniques for translating codewords in military texts to ensure a high level of security and confidentiality of communication channels. It focuses on key aspects such as security, efficiency, adaptability, and resistance to decryption, which determine the success of codeword translation methods in the military sphere.

Translating from English into Ukrainian demands a wide range of changes to a word, phrase, or entire sentence, including lexical and semantic, syntactic, and grammatical transformations.

Direct Translation: This entails translating code terms directly from English to Ukrainian while ensuring that the translated words retain their intended meaning within the military context. Direct translation involves changing code terms straight from English to Ukrainian while retaining their original meaning and purpose in the military environment. This strategy is intended to preserve clarity and consistency in communication between English-speaking and Ukrainian-speaking military members.

Tracing refers to the step-by-step replication of sentences once its constituent parts have been translated using proper lexical procedures in Ukrainian [1].

Adaptation to Ukrainian Terminology: Sometimes, direct translation or transliteration may not adequately convey the intended meaning or may sound awkward in Ukrainian. In such cases, translators may choose to adapt the acronym or abbreviation to fit Ukrainian military terminology while preserving its essence.

For example, "C2" (Command and Control) can be translated as "Керування та контроль" (Keruvannya ta kontrol) in Ukrainian.

Equivalent replacement refers to using pre-existing equivalents from socio-political dictionaries that cannot be translated differently [1].

Abbreviation is used with multi-component phrases, but only if this modification doesn't affect the meaning of the phrase or the denotative notion of the term itself [1]. Military communications often use acronyms and abbreviations to convey complex messages efficiently. These may not be encrypted, but they serve as a form of code that requires specialized knowledge to interpret. Acronyms and abbreviations play a significant role in military communication, providing concise and efficient ways to convey complex concepts, commands, and instructions. When translating code words from English into Ukrainian, it's essential to accurately preserve and adapt these acronyms and abbreviations to ensure clarity and consistency in communication within the Ukrainian military context.

Localization: Consideration should be given to cultural and linguistic nuances when translating code words, ensuring that they are appropriate and easily understandable within the Ukrainian military context. Localization is a crucial aspect of translating code words in military texts from English into Ukrainian. It involves adapting the language, terminology, and cultural references to make the communication more relevant and understandable within the Ukrainian military context.

Therefore, the adequacy of translation of military materials involves not only the accurate transmission of the content of the material, but also the careful transmission of its structural form, sequence of presentation and a number of other factors that may be considered unnecessary or formal, but are of great importance for a military specialist [2].

The translation of code words in military texts from English into Ukrainian is a complex and multifaceted process that requires careful consideration of various factors. Effective translation of code words is essential for maintaining clear and secure communication channels within the armed forces, facilitating cooperation, coordination, and decision-making in diverse operational environments. By employing these techniques, translators can ensure that the translated code words accurately convey the intended meaning while adhering to established military terminology, legal requirements, and cultural sensitivities.

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TEXT AND DATA MINING IN CORPUS-APPLIED TRANSLATION STUDIES

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Text mining and Data mining in Orange software is mostly used for, the "raw data" analysis that can be transformed into structured data and can be used for executing tasks such as Classification, Hierarchical clustering, Section clustering, Word count clustering, Character count clustering. This allows to gain insights from a wide range of data sources, such as texts of official and business discourse, social media posts, and news articles.

Text mining and Data Analytics are related but they have provide different processes for extracting statistical info from textual data. Text mining involves the application of natural language processing and machine learning techniques to discover new information (patterns, trends, models) from large volumes of written sources [1].

Although, Text Analytics (Text mining) focuses on extracting meaningful information, sentiments, context and key words from text often using statistical and linguistic methods. Mostly, extracted statistical information is involved to the process of Data Analytics (Data mining). In corpus and applied linguistics Data mining means extracting and discovering language patterns in large data sets involving methods at the intersection of machine learning, statistics, and database systems [2].

In my research I used *Cortical.io* for Data mining that offers free Natural Language Processing APIs for text processing tasks to find key words in certain clusters and to define semantic fingerprint of the term combinations (*full-scale invasion, humanitarian crisis, free-trade*). Using Data mining in uncovering hidden patterns and utilizing text analytics I defined sentiment in corpus. Both Text and Data mining play crucial role in transforming collection of documents into valuable knowledge, with Text mining exploring language patterns and data analytics providing interpretative statistical information.

Text mining same as Data mining is widely used in corpus and applied linguistics, in various fields such as natural language processing, information retrieval, and corpus-driven approach of daily newspapers analysis (The Guardian, The Washington Post, The New York Times). It has become an essential tool for linguistics to extract standard statistical measures and defined variables (words count, characters count, N-grams count, average word length) from collection of documents and to make data-driven decisions.

Based on this, to investigate the effect of corpus-driven approach in the new direction of Corpus-applied translation studies I reviewed 461 text documents from the British daily newspaper *The Guardian* for the period from 2023 to 2024. The findings show three clusters *C1* – full-scale invasion, *C2* – humanitarian crisis, *C3* – free-trade. I reveled a difference in Word, Character count and Section clustering. The data resources were used to determine p-value, degree of freedom, t-statistic. A range of procedures consisting widgets of Orange software were adopted to find out the distributions of attribute values (C1, C2, C3).

Thus, the results of the analysis served as a reference for the deep study. Once categorized into attribute values clusters were than singled out to discover the new data and language anomalies.

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THE ROLE AND PLACE OF CYBER WEAPONS IN ENSURING THE INFORMATION SECURITY OF THE STATE

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Cyber weapons are a specific type of weapon used in digital or cyberspace to cause damage, influence systems, or gain advantage in the information, military, or political spheres. It includes a variety of techniques and tools used to conduct cyber attacks, hacking into information systems, spreading viruses and Trojans, cyber espionage, and other types of cyber operations.

Cyber weapons can be used for a variety of purposes. They can be used to infiltrate computer networks and systems to gather intelligence. Cyber weapons are also used to conduct cyber attacks on information systems, networks, and computers to steal data, cause damage, or block operations.

Cyber weapons can be used by terrorist groups to carry out terrorist acts in the digital space, such as attacks on critical infrastructure or networks. This type of weapon is also used to manipulate information, influence public opinion and disinformation in order to achieve certain political, economic or military goals. The use of cyber weapons is becoming increasingly important in the modern world, as information technology is becoming more integrated into all spheres of life and is becoming essential for the functioning of societies and states.

In today's world, cyber weapons are one of the newest and most effective types of modern weapons. These weapons are means of cyber warfare and systems related to them, which include cyber weapons and cyber weapon systems (equipment, tools, mechanisms, hardware, software, etc.) that are designed and used to conduct cyber attacks [1].

The use of cyber weapons in ensuring the information security of the state remains a very urgent problem in the modern world due to the growing level of cyber threats, active digital transformation of the state, political conflicts, economic consequences, and the existing military strategy. With the development of technology, the number of cyber threats that can affect state security is also growing. Cyberattacks can be carried out by individual hacker groups or by state organizations to cause political, economic, or military damage. The growing amount of information and processes taking place in the digital space creates new opportunities for cyberattacks and the need to ensure their security.

Cyberattacks can be used as a means of political pressure and influence on government decisions. They can be aimed at influencing elections, manipulating public opinion, and other aspects of the country's political life. Cyberattacks can lead to serious economic losses for the state due to disruption of financial systems,

critical infrastructure facilities, and loss of confidential information. The use of cyber weapons is an important component of the military strategy of states. The ability to conduct and defend against cyberattacks can affect the outcome of military conflicts.

Cyber weapons in the modern world play a key role in ensuring the information security of countries. Its place in this process lies in various aspects, including protection against cyberattacks, cyberintelligence, cyberterrorism, and the use of cyber weapons in military operations. Cyberattacks can be directed at state infrastructures, military facilities, critical information infrastructure, political systems, etc. Cyber weapons are used to detect, select and respond to such threats. Cyber weapons can be used to conduct intelligence, which may include hacking into information systems and leaking confidential information. This type of intelligence can help identify potential threats to national security.

The use of cyber weapons by terrorist organizations can seriously threaten the security of states. Cyberattacks can target critical infrastructure, financial systems, communication networks, etc. In modern military conflicts, cyber weapons are used as one of the key tools. It can be used to paralyze military communications, damage important facilities, increase the efficiency of military operations, etc.

The classification of cyber weapons will be understood as the division of all possible types of cyber weapons into interrelated classes, determined on the basis of the most significant and important features in practice. Given the number and diversity of cyber weapons, the main principle that can be used as a basis for classification is the feature principle [1, 3]. Today, it is proposed to classify cyber weapons according to the following basic features: purpose, scale of use; nature of the damaging effect; delivery method; controllability; destructive effect; efficiency; location; level of camouflage; manufacturing method; spectrum of action; objects of destruction; level of impact on objects of destruction; targeting properties; integral effect; type of connections and level of interaction; consequences; generation principle; self-organization; duration of effect; latency.

The advantage of such a classification is the possibility of expanding the set of features by which the classification can be carried out. In addition, such a classification formalizes the requirements for newly developed cyber weapons and makes it possible to better understand the peculiarities of the mechanism of cyber weapons' impact on all possible targets, to predict trends in its development, and to provide for measures to protect against its defeat factors.

In overall terms, the growing number of cyber threats and their potentially wide range of consequences emphasize the relevance of using cyber weapons to ensure the information security of the state. Accordingly, states continue to invest in the development and improvement of cyber defense strategies and technologies. In ensuring the information security of the country, it is important to develop and implement strategies to protect against cyber threats, improve technological

solutions and enhance the skills of personnel. It is also important to develop cooperation at the international level to exchange information and jointly counter cyber threats.

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THE USE OF MACHINE TRANSLATION IN TRANSLATION ACTIVITIES

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In today's globalized world, scientific and technological progress is gaining significant development, which leads to the automation of most areas of human activity. These processes undoubtedly have an impact on the linguistic and, especially, on the translation profession. One of the modernization directions of translation activity is the active introduction of computer technologies, namely machine translation, into the translation process.

Machine translation is a technology for automatic translation from one natural language to another using various algorithms and programs. At a basic level, the essence of this technology is to create a translator program that replaces words and phrases of the source language with words and phrases of the target language [1, p.81–84].

Machine translation uses various technologies to automatically translate text and the main technologies used in it include *statistical models, neural networks, attention-based models, language resources, and automatic learning.* According to research, *neural networks* are used the most commonly, because they are able to learn complex relationships between languages and produce more accurate and fluent translations compared to older methods. While not as powerful as neural networks on their own, *statistical models* are still used in conjunction with them providing a foundation for neural networks to learn from and improve their translation capabilities [3, p. 86].

The following new methods and approaches to translation can be distinguished in connection with the development of machine translation, with its active use in translation:

1. Post-editing. This method involves the revision and correction of automated translations obtained with the help of MT and is performed by qualified translators who improve grammar, style, terminology and overall translation quality. It is becoming increasingly popular as it combines the cost-effectiveness of MT with human quality control.

2. **Interactive translation.** This approach uses MTs to provide real-time translation, with the ability for interpreters to intervene and correct. Interactive translation is used in areas such as teleconferencing, online meetings, and real-time translation. It enables translators to provide contextual information and clarify word meanings, which improves the overall quality of translation.

3. Automated text adaptation. This method uses MT to adapt text to a specific audience or culture. Automated text adaptation can include changing the style, tone, vocabulary, and cultural references to make the text more understandable to the target audience. This method is becoming increasingly popular as it is important to localize content for different markets. [2, p. 122]

So, MT plays an increasingly significant role in the work of translators, affecting various aspects of their activities such as: improving productivity, cost reduction, expanding opportunities like working with languages they are not fluent in, expanding their capabilities and making them more competitive in the translation market. Of course, there are also challenges of such kind of a translation, the main one is that languages have complex semantics, grammar, and cultural characteristics, which often makes it difficult to translate accurately and correctly. But nevertheless machine translation is a valuable tool in translation.

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TRADITIONS AND NEW TRENDS IN QUANTITATIVE LINGUISTICS: NAVIGATING CHALLENGES FOR THE UNIVERSITY DISCIPLINE

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In the contemporary era, the integration of digitalization, mathematical tools, and inter- and transdisciplinarity is evident across various fields, including linguistics. Statistical and quantitative linguistics epitomize this integration. The relevance of this topic is accentuated by the ongoing reforms in the Ukrainian education system, necessitating discussions on educational program components.

The academic course "Fundamentals of Quantitative Linguistics for Philologists" was offered for the university students throughout Ukraine, whose education is suffering because of the full-scale invasion of Russian federation into our country. It is part of the bigger project "Online Courses in Digital Ukrainian Philology" supported by German Academic Exchange Service DAAD (Deutscher Akademischer Austauschdienst), as well as Institute of Slavic and Caucasus Studies, and Network for Ukrainian Studies, Jena university, Germany [4].

Nuances of quantitative linguistics within the university setting deal with the exploring its intersection with diverse scientific traditions and contemporary challenges. The purpose of the course is to form knowledge about the application of basic quantitative methods in philology: language and literary studies, linguistic expertise, stylometry, forensic, socio-, cognitive, and historical linguistics, language learning and second language acquisition, ethnolinguistics, folkloristics, dialectology, as well as in culturology, gender studies etc.

The structure of the course was represented in the textbook [1], which second edition will be published soon. The tasks of the course are: (1) to reflex on the heartbreaking quantitative turn in linguistics: during last 20 years in world linguistics, the proportions of statistical and quantitative methods are steadily increasing and the proportion of qualitative approach is strongly decreasing [3]; (2) to give the students an idea how to improve quality of their research, implementing the basic quantitative instruments, and in this way to make them more competitive in the international field of studies; (3) to analyze the main statistical tools of existing text corpora, Sketch Engine, Word, Excel software and to form the skills how to use them; (4) to clarify the role of quantitative description of language and text and the place of this field in the digital humanities; (5) to show the value of foundational quantitative concepts (frequency, relative frequency and comparison; normalization, key words, measuring collocation, multidimensional analysis etc.) and their meaning in humanitarian branches mentioned above, etc.

The practical classes include the use of corpus and other digital technologies, the format of an academic discussion, teamwork, sociolinguistic experiment, frequency dictionary compilation, quantitative analysis of language and text, which, together with the final essay, determine the success of the students' work. Minimal requirements for participants: basic theoretical knowledge of linguistics (having studied "Introduction to Linguistics" or "Introduction to Applied Linguistics") is highly desirable but not mandatory for successful completion of the course. Students from related fields such as literary studies, language teaching, folklore studies, dialectology, cultural studies, gender studies, etc. were welcomed.

As a result of learning of this academic discipline, the students know the most important concepts and categorical apparatus of quantitative linguistics; lexicographic and electronic sources of finding quantitative information about language units; basic statistical tools of text corpora, Sketch Engine, Stylo, CQL graphs (Corpus Query Language), Word, Excel, Pajontek etc.; key tools for visualizing statistical information about textual data; frequency dictionaries of the Ukrainian language (published also abroad [2]) and their defining characteristics.

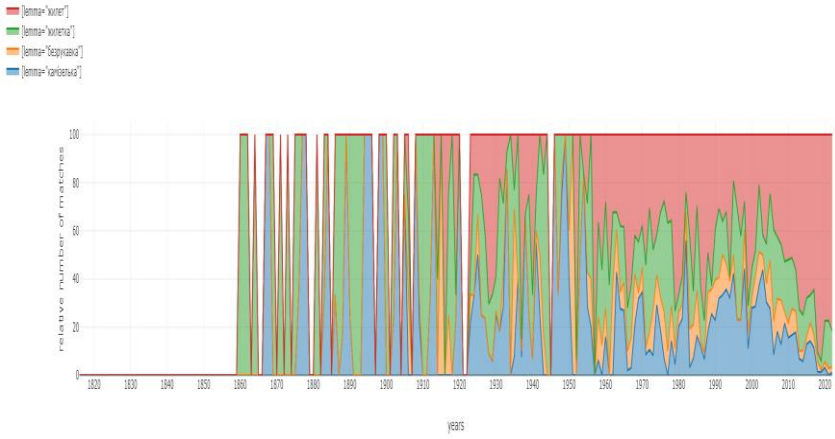

Figure 5 – CQL plots of "жилет" (red) / "жилетка" (green) / "безрукавка" (orange) / "камізелька" (blue) (waistcoat) in Grak corpus

In the absolute majority of cases, interfaces of corpora, most computer programs, and programming languages are in English. Often not only the interfaces themself but also the articles describing Ukrainian corpora are in English (good exception is Mova.info having all the search options in Ukrainian). Even though the level of student's English is constantly growing, recently it is not enough for easy reading, and processing this specialized information. The reasons for the current

situation could be seen in demographic crisis, Russian full-scale invasion into Ukraine, and as result sometimes lower English command requirements for the university applicants for the philological specialties (such as Ukrainian language and literature, slavistics, folklore, applied linguistics, theory of literature etc.).

In Ukraine, quantitative linguistics has evolved dynamically, incorporating diverse research approaches, the solid methodological foundation of which is rooted in the works of notable scholars V. Perebyjnis, N. Darchuk, V. Levytsky, Ye. Karpilovska, O. Zuban and many others. The proliferation of electronic resources equipped with quantitative analysis tools has propelled industry growth. Blending Ukrainian, western European, as well as North American traditions, the course does not avoid the challenging issues, such as "quantitative turn" in linguistics, prompting discussions on the balance between quantitative and qualitative methodologies and its implications for linguistic theorizing.

The course "Fundamentals of Quantitative Linguistics for Philologists" plays a pivotal role in shaping students' understanding of quantitative methods in linguistics and their practical applications. By fostering critical thinking and equipping students with essential skills, the course enhances their competitiveness in the global academic landscape. Quantitative linguistics epitomizes the transdisciplinary nature of modern scientific inquiry, bridging diverse paradigms and methodologies.

In conclusion, quantitative linguistics serves as a cornerstone of modern linguistic education, addressing contemporary challenges and enriching the broader academic discourse. Embracing its transdisciplinary nature is essential for navigating the complexities of linguistic research in the digital age.

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TRANSLATION ANALYSIS OF MULTICOMPONENT TERMS IN CYBERSECURITY TEXTS

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This thesis provides an overview of multicomponent terms in the realm of cybersecurity.
Keywords: cybersecurity, translation analysis, terminology, multicomponent terms, collocation analysis.

In the realm of cybersecurity, the translation of multicomponent terms poses a significant challenge due to the technicality and specificity of the domain. This analysis delves into the complexities involved in translating such terms and explores strategies to ensure accuracy and clarity in cross-linguistic communication within cybersecurity texts.

Cybersecurity terminologies often comprise multicomponent terms, combining multiple words or phrases to encapsulate precise concepts. These terms may involve acronyms, compound nouns, or phrases that are unique to the field. When translating these terms, translators encounter several obstacles:

– semantic equivalence: Maintaining semantic equivalence while translating multicomponent terms is paramount. Direct translation may not always capture the intended meaning, especially considering cultural and linguistic nuances. Translators must comprehend the underlying concepts to convey them accurately in the target language.

– contextual understanding: Cybersecurity terms derive meaning from their contextual usage within texts. Translators need a deep understanding of the context to ensure that translated terms align with the intended usage and convey the appropriate level of technicality and security implications.

– terminological consistency: Consistency in terminology is crucial for comprehension and standardization within the cybersecurity domain. Translators must adhere to established terminology guidelines and maintain consistency across translations to avoid confusion and ensure coherence in communication.

To address these challenges, translators can employ various strategies:

1. Research and collaboration: translators should conduct extensive research to comprehend the intricacies of cybersecurity terms. Collaboration with subject matter experts can provide valuable insights into the context and usage of multicomponent terms, facilitating more accurate translations.

2. Glossaries and terminology databases: utilizing glossaries and terminology databases specific to cybersecurity can aid translators in identifying

established translations and ensuring consistency. These resources serve as valuable reference tools for maintaining terminological accuracy.

3. Adaptation and expansion: in cases where direct translation proves inadequate, translators may need to adapt or expand multicomponent terms to convey the intended meaning effectively in the target language. This approach requires linguistic creativity while preserving the integrity of the original concept.

4. Continuous learning: cybersecurity is a rapidly evolving field, with new terms and concepts emerging frequently. Translators should engage in continuous learning and stay updated with the latest developments to enhance their proficiency in translating multicomponent terms accurately.

In conclusion, the translation of multicomponent terms in cybersecurity texts demands meticulous attention to detail, contextual understanding, and terminological consistency. By employing appropriate strategies and leveraging resources effectively, translators can overcome challenges and ensure precise and comprehensible translations essential for effective communication in the cybersecurity domain.

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TRANSLATION OF IMPERATIVE MOOD IN ENGLISH INSTRUCTIONS OF RESCUE-EMERGENCY WORKS

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In today's world, the development of innovations and technologies has made unprecedented progress, all kinds of devices are appearing that contribute to improving the quality of people life, facilitating heavy physical work, as well as performing many other functions and tasks. Along with the technical progress of the twenty-first century, translation in the scientific and technical sphere is being improved and enriched.

Imperative mood differs from other methods by a special modal meaning, emotional and stimulating content, expression, intonation design, originality of form formation and structure.

Depending on what the imperative means and prompts, in linguistic science there is a concept of communicative pragmatic types of speech acts, which are divided into: prescriptives, requisitives, suggestives and menasives. In accordance to the functions performed by imperative constructions, they are of two types: monofunctional and polyfunctional.

Monofunctional motivational structures are structures that perform a single function. Among them prevail imperative constructions, which are aimed at prompting the 2nd person. In both languages there are uncommon and common imperative constructions.

In addition to monofunctional motivational constructions, linguists also distinguish polyfunctional ones, in which the tapping acts as a secondary function. This group is represented by constructions with verbs in the form of real and conditional ways, constructions with impersonal forms of the verb, verbless motivative constructions and constructions with modal verbs. The differences between the languages are that English is dominated by constructions with modal verbs, in Ukrainian - constructions with verbs in the form of the real mood [2, c. 348].

Grammatical transformations consist in transforming the sentence structure in the process of translation in accordance with the norms of the target language. The transformation can be complete or partial, depending on whether the structure of the proposition changes completely or partially. Usually, when the main members of the sentence are replaced, a complete transformation occurs, if only secondary ones are replaced - a partial transformation. In addition to replacing sentence members, parts of speech can also be replaced [1, c. 193].

As a result of the analysis, it was found that the translator resorts to almost all types of grammatical compensations during translation into Ukrainian. Namely: changing the order of words or permuting, omitting, dividing sentences, as well as combining several simple sentences into one expanded one.

The most productive method of translation transformations is permutation. Thus, in the analyzed stories, the replacement of sentence members is widely used, namely, the transformation of the theme into a rheme. In this way, the rheme is intonationally highlighted and emphasized and implies the entry of the sentence into a wider context.

Quite often, the translator resorts to replacing a part of the language, for example: replacing a noun with a verb, skillfully uses the replacement of adjectives with nouns, adjectives with verbs, verbs with nouns, in some cases the author replaces adjectives. In this way, the sentence became easier to accept and more characteristic of the Ukrainian language [3].

As a rule, the reasons for the replacement are the more widespread and native in the Ukrainian language the specifics of the structure of the message, which in this translation into the Ukrainian language sounds more appropriate.

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TRANSLATION OF MILITARY TERMINOLOGY, APPROACHES, FORMATION AND PROBLEMS

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The problem of a military translator is still in demand today. In Ukraine, military translators have been in demand since 2014, after the unprovoked attack of the Russian Federation on Ukraine. The work of a military translator is related to military terminology.

Military terminology is a significant group of terms related to military activities. It is an important component of translation studies, but in peacetime, in Ukraine, it was not so urgent. The changes took place in 2014, with the beginning of Russia's military aggression against Ukraine, when pro-Kremlin forces seized Crimea, Luhansk and Donetsk regions. The need for English translators for the military has increased since 2014. It was connected with military supplies from Ukrainian allies. The United States of America was almost the first that started delivering aid. At the end of March 2014, it was delivered 330,000 dry rations from the USA. Later, the Americans delivered bulletproof vests, medical aid kits, uniform sets, unloading vests, armored SUVs [2].

From chronological point of view in the 21st century, in terms of military term translation, there were several time periods. As it was mentioned above, the initial period in military term translation started in 2014 and went on. So, from our point of view, there were 4 of them: 1)2014 up to 2016; 2) 2016-2018; 3) 2018-2021; 4) 2022-2024. Each period has its own characteristics due to supply of armament.

Since 2014, Ukraine has fruitfully cooperated with NATO countries, receiving military equipment, exchanging experience and technologies. Such interaction required the involvement of military interpreters and translators, both for written and for modes. With the beginning of Russia's full-scale aggression against Ukraine in 2022, interaction with foreign partners has increased significantly. Such cooperation covered both written translation and oral communication [1].

Apart from translation and interpreting there was another challenge and it concerned availability of translators. Ukrainian soldiers were receiving training in Germany, Great Britain, Spain, France, the USA, but teaching was not the only problem faced by both sides. Ukrainian militaries were experiencing how to operate tanks, fighting jets, armored vehicles etc. in the front line, which was not easy. But when foreign officers gathered to train Ukrainian men, they were not expecting a shortage of competent interpreters and it was the top issue.

"Interpreters were challenge number one," said Martin Bonn, a Dutch brigadier general who is deputy head of the multinational EU training mission launched in November 2023 to educate Ukrainians on a range of weapons and tactics. Kyiv and western capitals were providing translators, who often struggle with the necessary vocabulary [8].

Interpretation is inseparable from terms and translation specifications. Regarding the specificity of military translation, there are certain road blocks and they are connected with specificity of terminology. Example:

POWER SWITCH 2-3. The power switch is a rotary switch located on the lower rear corner of the left-hand side of the CLU main housing (Figure 2-2). The power switch controls the Javelin's mode of operation and each position brings different components of the Javelin into operation. The power switch has four positions: OFF, DAY, NIGHT, and TEST. The Javelin is in the OFF mode when the power switch is in the OFF position. In this mode, no battery power is applied to the Javelin. The day field-of-view (FOV) can be used for surveillance and target detection, but the NVS cannot be used and the seeker cannot be activated. The missile cannot be launched [4]. If you are not familiar with terms, you can break the system which is expensive and urgently needed at the front line. Making the situation worse an ignorant person can injure himself or his colleagues or even kill them.

Written translation is not easier, first of all, because it concerns working with terminology, which includes a lot of acronyms, extended terminological units and military slang. For example, acronyms: *AD – active duty; AWOL – absent without leave; BT or BCT – basic training; KIA – killed in action;* abbreviations: *Bd – Board; Cen – Center; Def – Defense; Off – Officer; Tng. – Training* [10].

While translating an expert can encounter extended military terms: *Close-air support aircraft (CAS aircraft)* - Aircraft that support ground troops and fire upon battlefield targets as they appear, rather than carrying out pre-planned bombing raids; *Hypersonic boost-glide weapons; Improvised explosive device*; *Porcupine defence strategy* - a type of asymmetrical warfare. At its heart is a recognition that a smaller power needs to adopt nimbler and lighter ways of fending off a stronger enemy. Think Taiwan versus China. Instead of buying expensive conventional equipment such as tanks, battleships and submarines—which are hard to hide and easy to strike with a missile - a "porcupine" strategist would focus on agile and concealable weapons such as portable anti-tank or anti-aircraft missiles. For more, read our Explainer about Taiwan's porcupine defence [9].

Many terms are metaphorical in its nature, i.e., that metaphor is the core of such a term. For example: *a sky blossom in military slang, it is a deployed parachute); bird – helicopter; hawk – term for cold weather* [5]. *Hercules* - Definition: (DOD) A medium range troop and cargo transport designed for air-drop or airland delivery into a combat zone as well as conventional airlift. This aircraft is equipped with four turboprop engines, and integral ramp and cargo

door; *Hound Dog* - Definition: (DOD) A turbojet-propelled, air-to-surface missile designed to be carried externally on the B-52; *Tomcat* - Definition: (DOD) A twin turbofan, dual-crew, supersonic, all-weather, long-range interceptor designed to operate from aircraft carriers. It carries a wide assortment of air-to-air and air-to-ground missiles and conventional ordnance. Primary mission is long-range fleet air defense with secondary close air support capability. Designated as F-14; *Vulcan* - Definition: (DOD) An Army air defense artillery gun which provides low-altitude air defense and has a direct fire capability against surface targets. The gun is a 6-barreled, air-cooled, 20-mm rotary-fired weapon [6].

These are examples of military slang words: *Barny style*: When you are trying to explain something but your audience (probably Marines) are too dumb to understand what you are saying, so you have to break it down into terms that even a small child would understand; *dark side* - A rank higher than Sergeant; *driver* – pilot; *eating duck* - A term to describe eating quickly; *Eagle driver* - F-15 Pilot; *frogs* - Navy SEAL nickname [7]; *Expectant* – A soldier who is expected to die from their injuries; *Jeep* – Soldier just out of basic training; *Joe* – Soldier (from G.I. Joe); *Black* (on supplies) – Certain supplies have run out; *Leather personnel carriers* – Boots; *Mae West* – U.S. Navy life jacket (or a term for a twisted life jacket); *Meat wagon* – Ambulance [3].

An interpreter or translator should be familiar with military slang of NATO. For instance: *Alpha Charlie* – A vulgar term for being verbally reprimanded (ass chewing); *Blue Falcon* – Someone who betrays you; *Bravo Zulu* – A compliment meaning “well done”; *Charlie Foxtrot* – A vulgar term for a messed-up situation; *Charlie Mike* – Continue mission; NEGAT Bravo Zulu – Not well done; *Oscar Mike* – On the move; *Tango Mike* – Thanks much; *Tango Uniform* – A failed operation [3].

The situation under analysis is not easy, and that requires quick and decisive steps.

Conclusions. So, Ukraine needs military translators and interpreters, so this issue should be resolved immediately by correcting the educational programs of universities, changing the approach of the Ministry of Education and the ministry of Defence. It also important to start up a dialogue within the academic community. Secondly, Ukraine lacks English-Ukrainian dictionaries of military terms, although attempts are being made to change the situation for better.

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TRANSLATION PROCEDURES OF ONE-COMPONENT TERMS: BASED ON SOME TYPES OF CYBERCRIME

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The paper considers the requirements translation procedures of one-component terms analysis based on some types of cybercrime.

Keywords: cybersecurity , cybercrimes, security risks.

The analysis of one-component terms in the context of cybercrime involves breaking down complex terms into their basic components to facilitate accurate translation. Different types of cybercrimes, such as hacking, phishing, and malware attacks, require specific translation procedures to ensure precision in conveying meaning. The translation of one-component terms related to cybercrime necesitates a deep understanding of both the source and target languages, as well as expertise in the field of cybersecurity [1].

Translators dealing with cybercrime terminology must stay updated on the latest developments in the field to accurately capture nuances and changes in terminology.

Utilizing specialized glossaries, dictionaries, and resources focusing on cybercrime terminology can enhance the translation process and improve the quality of translated materials. Inaccurate translation of one-component terms related to cybercrime can lead to misunderstandings, legal implications, and security risks, emphasizing the importance of precise translation procedures [2].

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USING INFORMATION TECHNOLOGIES IN TRANSLATION BASED ON THE SECURITY PRINCIPLES

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The thesis examines the requirements for using information technologies in translation based on the security principles.
Keywords: information, security, translation, information technology.

In recent years, the integration of information technologies (IT) into translation processes has significantly transformed the way translations are conducted. However, amidst the digital revolution, ensuring security in translation activities has become a paramount concern. This thesis explores the utilization of information technologies in translation practices while emphasizing the implementation of security principles to safeguard sensitive information and maintain confidentiality.

Let us consider the main aspects of using information technologies in translation from the perspective of their safe use.

1. Evolution of Information Technologies in Translation:

– Overview of the evolution of information technologies and their impact on translation practices.

– Discussion on the advantages and challenges associated with the integration of IT in translation processes [1].

2. Importance of Security in Translation:

– Examination of the significance of security measures in translation activities, particularly concerning confidentiality, integrity, and availability of translated content.

– Analysis of potential risks and threats to translation projects in the digital era.

3. Implementation of Security Principles in Translation:

– Exploration of security principles and standards applicable to translation activities, such as encryption, access control, and data protection regulations (e.g., GDPR).

– Case studies demonstrating the integration of security measures in translation workflows.

4. Role of Information Technologies in Enhancing Security:

– Investigation into how IT solutions can reinforce security in translation processes, including secure file transfer protocols, encrypted communication platforms, and automated security checks.

– Examination of emerging technologies like blockchain for ensuring data integrity and authenticity in translations.

5. Best Practices and Recommendations:

– Identification of best practices for incorporating security principles into translation workflows effectively.

– Provision of recommendations for translators, translation agencies, and technology developers to enhance security measures in translation activities.

The critical role of information technologies in modern translation practices and underscores the importance of integrating security principles to mitigate risks and safeguard sensitive information. By embracing a security-oriented approach, translators and translation stakeholders can leverage the benefits of IT solutions while ensuring the confidentiality and integrity of translated content in an increasingly digital landscape [1].

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УДК 81`33

КУРС КОРПУСНОЇ ЛІНГВІСТИКИ ДЛЯ СТУДЕНТІВ ФІЛОЛОГІЧНИХ СПЕЦІАЛЬНОСТЕЙ

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Корпуси в наш час є необхідним інструментом лінгвістичних досліджень. На курсі корпусної лінгвістики студенти різних філологічних спеціальностей вчаться користуватися корпусами, доступними в інтернеті для пошуку, а також створювати власні для конкретних дослідницьких потреб з використанням наявних інструментів, передусім засобів для опрацювання української мови.

Наявні посібники з корпусної лінгвістики розкривають передусім важливі теоретичні поняття і методологію, але не описують багатьох конкретних інструментів, які можуть бути корисні для лінгвіста на практиці під час роботи з текстами. Головна причина цього та, що такі інструменти стрімко розвиваються і їх набір оновлюється швидше, ніж друковані посібники. Для інструментів, призначених для української мови цей процес став особливо інтенсивним з 2022 року у зв'язку з війною, міжнародною увагою до України і значною міграцією українців. Це стимулювало розвиток нових українських лінгвістичних ресурсів, укладання корпусів, вдосконалення інструментів автоматичного перекладу для української мови.

Наш курс корпусної лінгвістики має на меті систематизувати нові ресурси для української мови і показати можливості їх використання на практичних задачах, щоб студенти могли користуватися ними у власних дослідженнях. Курс був розроблений в НТУ ХПІ і модифікований для слухачів курсів з цифрової гуманітаристики, організованих Єнським університетом за підтримки фонду DAAD для студентів з різних університетів України [1].

У межах курсу ми розглядаємо такі теми.

1. Корпуси української мови, доступні онлайн.

Серед корпусів української мови представлені корпуси різних типів, зокрема референтний корпус (ГРАК [2], Корпус української мови [3]), веб-корпус [4; 5; 6; 7], моніторинговий веб-корпус [8; 9], паралельний корпус [10, 11], корпус парламентських стенограм [12], діалектний корпус зі звуком (в розробці), Treebank [13] та ін. [14].

На прикладі корпусів української мови, передусім ГРАКу, студенти знайомляться з багатофункційним пошуковим менеджером Sketch Engine

(та NoSketch Engine) [15], на якому працюють корпуси багатьох мов світу, опановують інтерфейс і його функції, розглядають різні типи розмітки корпусу і можливості її використання під час пошуку.

2. Мова корпусних запитів CQL

Corpus Query Language – це мова запитів, яка використовується в Sketch Engine для пошуку складних граматичних та лексичних шаблонів або для використання критеріїв пошуку, які неможливо встановити за допомогою стандартного інтерфейсу користувача. На сайті ГРАКу доступна інструкція до CQL українською мовою, створена на основі документації Sketch Engine із використанням українських прикладів [16].

3. Розпізнавання текстів (OCR) і коригування

Оптичне розпізнавання текстів є необхідним етапом створення корпусу текстів з друкованих джерел. Метою оптичного розпізнавання є перетворення зісканованого чи сфотографованого тексту у текстовий формат придатний для редагування, копіювання і пошуку. Найвідоміші програми розпізнавання текстів ABBYY FineReader, PDF2Go, відповідний модуль у складі Google Doc. Після розпізнавання необхідна перевірка і, можливо, коригування текстів вручну. Студенти опановують регулярні вирази (regexp), які можна використовувати для таких операцій, як видалення номерів сторінок, номерів зносок, пошуку самих посторінкових зносок, які в розпізнаному файлі можуть розривати основний текст тощо.

Серед помилок, які залишаються після OCR, є такі, які не помітні оку і не можуть бути виправлені вручну, але заважатимуть пошуку в корпусі, наприклад, латинські літери (як o, e, і) в кириличному тексті. Для виправлення таких помилок ми рекомендуємо застосовувати утиліту CleanText.groovy [17], вона ж має функцію позначення фрагментів російською в українському тексті, що буває корисно під час роботи зі старими текстами, які інколи містять, наприклад, цитати без перекладу.

4. Метарозмітка текстів корпусу

Метарозмітка це приписування текстам корпусу метатекстових атрибутів, таких як назва твору, автор, рік створення, стиль, мова тощо. Метарозмітка допомагає організувати корпус і забезпечити можливість створення підкорпусів за розміченими атрибутами. Метадані для невеликого корпусу можуть бути оформлені у таблиці, де кожному тексту відповідає рядок, а атрибуту колонка.

5. Морфологічна розмітка текстів корпусу.

Морфологічна розмітка подає морфологічну інформацію про кожне слововживання в корпусі у вигляді леми і набору граматичних тегів. Така розмітка здійснюється автоматично, для цього може бути використана програма на основі словника і правил (LanguageTool API NLP UK на основі словника ВЕСУМ) або програма, яка працює на основі нейронної мережі (Stanza). Перша є оптимальною для аналізу стандартних текстів, друга

підійде також для роботи з нестандартним текстом, наприклад, з помилками. Перевагою програми на основі словника для лінгвістичних досліджень є також можливість отримати після розмітки корпусу списку несловникових слів з нього, який може бути використаний для подальшої роботи та поповнення словника. Прозорий принцип роботи системи на основі словника і правил дозволяє пристосовувати її для опрацювання нестандартних текстів, наприклад, написаних з використанням старих орфографічних систем [18, 19, 20].

6. Вирівнювання паралельних текстів

Для створення паралельного корпусу необхідно мати якнайменш два тексти, оригінал і переклад, які вирівняти автоматично, речення до речення, за допомогою спеціальної програми. Для більшості мов, які вивчають студенти, це можна зробити у програмі InterText [21], розробленій для проекту InterCorp на основі програми Hunalign. InterText здійснює автоматичне вирівнювання і робить вирівняну пару текстів доступною через користувацький інтерфейс для ручної перевірки вирівнювання і подальших виправлень. Інтерфейс має вигляд таблиці з двома основними колонками, що відображають дві мовні версії. Кожна комірка таблиці містить довільну кількість речень, що належать до певного сегмента. Редактор може вільно переміщати речення між рядками таблиці (а отже, і між сегментами), вставляти нові рядки або об'єднувати наявні. Вирівняні тексти можна експортувати з InterText у файл формату tmx.

7. Компіляція корпусу для пошуку і публікації онлайн

Для створення і публікації власного корпусу можна використовувати середовище Korpusomat [22] або Sketch Engine [23]: обидві програми підтримують українську мову, мають простий інтерфейс, де можна створити власний корпус без спеціальних технічних вмінь. Korpusomat призначений для створення одномовних користувацьких корпусів і є безкоштовним, у Sketch Engine можна створити як одномовний, так і паралельний корпус з власних текстів (завантажити свій файл tmx або скористатися вбудованим інструментом, який вирівнює два файли автоматично), а також з текстів з інтернету за ключовими словами. Ці програми мають інструменти морфосинтаксичного аналізу, отже користувач може шукати в своєму корпусі за словоформою, лемою і/або морфосинтаксичними тегами.

8. Інструменти для аналізу і візуалізації корпусних даних.

Розглядаються інструменти Sketch Engine, такі як Frequency і Wordlist (для створення різних частотних списків), Keywords (для порівняння частотності у різних підкорпусах), Random sample (для створення врівноваженої вибірки з конкордансу) та ін. Студенти опановують інструмент, який будує графіки частотності на основі ГРАКу [24], і вчаться використовувати його як допоміжний засіб у корпусних дослідженнях.

Курс має допомогти студентам філологічних спеціальностей зорієнтуватися в галузі, обрати найкращий готовий корпус для свого дослідження або створити власний. Знайомство з запропонованими інструментами розширює діапазон можливостей для роботи з текстами;

інструменти прості у використанні, доступні студентам без навичок програмування.

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