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THE IMPACT OF MACHINE TRANSLATION ON LINGUAL AND TRANSLATION SKILL-SETS OF THE FUTURE GERMANISTS AT HEI OF UKRAINE

УПЛИВ АВТОМАТИЗОВАНОГО ПЕРЕКЛАДУ НА РОЗВИТОК МОВНИХ І ПЕРЕКЛАДАЦЬКИХ НАВИЧОК МАЙБУТНІХ ФІЛОЛОГІВ-ГЕРМАНІСТІВ ЗВО УКРАЇНИ

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In this paper, the authors attempt to outline the influence of information technology on training Germanic philologists – future translators at higher education institutions. The attention is focused on the rapid spread of translation applications and learning models of automatic translation (AI-assisted models, in particular) in everyday work and professional activities of a narrow specialist. In-depth analysis of papers related to this topic which were published in the last five years provides reasons to say that the issue of human-digital environment interaction becomes unprecedently significant now. Technology is very widely used in education and academic research. Still, aspects of balanced and motivated use of such models and applications remain outside the scope of researchers' close interests. And that potentially carries veiled risks for a person and the civilization in general.

One of unexpected, but quite formidable threats for the translator's competence is the overuse of automatic translation models for processing bodies of text with only simplified superficial checks after getting the transformed variant. The focus shifts from a lengthy hard intellectual work of choosing and combining language units to a cursory review of the translated material. Using LLMs saves time, accelerates work, and relieves the professional of tedious work. At the same time, basic professional skills suffer, and the level of competency falls. The logical solution to this problem is a detailed work with the concept of competency at the training stage. Teaching post-editing skills enables the student to consciously choose a task-relevant translation model minimizing risks and turning the threat into a learning resource.

Key words: machine translation, postediting, over-reliance, translation skills, AI, competence, task-technology fit.

У статті здійснено спробу окреслити вплив досягнень інформаційно-комунікаційних технологій під час навчання й тренування філологів-германістів – майбутніх перекладачів у закладах вищої освіти. Увагу зосереджено на стрімкому поширенні додатків із перекладу й навчальних моделей автоматизованого перекладу (зокрема, AI-асистованих) у щоденній роботі та професійній діяльності вузькоспеціалізованого фахівця. Ґрунтовний аналіз наукового доробку з теми за останні 5 років дозволяє стверджувати, що проблема взаємодії людини з цифровим середовищем набуває на сьогодні небаченої ваги. Потужним є застосування технологій в освіті та науковому поступі. Водночас поза колом пильного зацікавлення дослідників подеколи опиняються аспекти виваженого та вмотивованого використання таких моделей і додатків, що несе в собі ще не повністю розкриті ризики для індивідуума та суспільства й цивілізації загалом.

Одним із неочікуваних, проте доволі загрозливих для самої компетентності перекладача явищ стало надмірне послуговування навчальними моделями автоматизованого перекладу для обробки масивів тексту зі спрощеною перевіркою по отриманню трансформованого його варіанту. Так, акцент зміщено з тривалої напруженої інтелектуальної роботи фахівця щодо добору й поєднання мовних одиниць на побіжну перевірку перекладеного матеріалу. Застосування таких моделей економить робочий час перекладача, пришвидшує роботу та звільняє від нудної одноманітної роботи. З іншого боку, указують на значне погіршення базових навичок спеціаліста та зниження рівня його компетентностей. Логічним вирішенням цієї проблеми є детальна робота з поняттям компетентності в машинному перекладі ще на етапі навчання й тренування, тоді як коректне становлення навички постредагування дозволить студентові усвідомлено обирати відповідну до завдання перекладацьку модель, мінімізувавши ризики й перетворивши загрозу в навчальний ресурс.

Ключові слова: автоматизований переклад, постредагування, надмірна залежність, навички з перекладу, AI, компетентність, відповідність технології завданню.

Problem statement. Rapid development of information and communication technologies in the early 21st century affects nearly all the spheres of human activities. The most paradoxical aspect of the influence is in the spheres traditionally perceived as "human" – interpersonal communication, negotiations, translation, interpreting, transformations of the original document, education, etc. The obvious consequence of this powerful influence of the technological evolution is the "substitution" of the human from a range of modern professions, where we observe the change of the subject-based axis "human → information / knowledge → human" to the automatized model "machine → information / knowledge → human". The subjective component is replaced by the information exchange process, and humanistic basics of interaction transform into an impersonal mechanism which can make functional mistakes and distort available data.

Of particular importance is the use of technological process achievements in the translation studies, as it is both about relevant rendition of data using various language units (i.e., mechanical transformation of information), and creating subject-subject connections on the basis of unique human experience in interpreting subtext, context, and pragmatics of utterances of people with different languages, cultures, and beliefs (i.e, intercultural understanding).

Effective introduction of information and communication technologies to the translation practices of the 21st century is tightly interconnected with solving of a range of significant issues encompassing general linguistics and linguistic country studies, in particular, cultural studies, philosophy, cognitive linguistics, neurophysiology, etc. It deals with compiling text corpuses and variations of their translation, creating glossaries of certain styles, contextual synonyms and antonyms, presentation of specific manifestations of typological universals in specific languages, etc.

The relations with ethic, aesthetic, and pedagogy are no less important from the point of view academic (research, utilitarian, etc.) integrity, ethics and morality of using AI in translation, processing contextually and nationally marked lexical units, etc. Considering the developments in the modern technical means, special attention is needed in both the process of training a competitive translator, and choosing teaching tools. The range and content of professional skills and competences need to be adapted as well. Some of the above-mentioned aspects may still be outside the scope of academic studies. The choice of the topic and its academic significance are defined by the attempt of their update in this study.

Literature review. The overview of academic publications of the latest decade dealing with the issues of using information technology in translation practices and training translators/interpreters shows a considerable interest of researchers to a wide range of related aspects. Using machine-translation-assisted language learning in teaching students to use the language system and structure, and its influence of sustainable education are analysed by Deng X. and Yu Z. [1]. Nguyen T. N. N., et al. [2] deal with pedagogical basics of using digital tools in teaching translation as a major in higher education institution. The potential of information technology in creating dictionary corpora for training future translators is explored by Alhassan A., et al. [3]. The role of translation applications and their long-term impact on learning outcomes of translators is the object of systemic analysis in the paper of Alsalem R. [4]. There are papers where academics evaluate the quality of automated translation performed by specialized AI-models and neural machine tools on text corpora belonging to different genres [5; 6].

We also need to account for pedagogical and methodological principles of formation of up-to-date skills of working with information technology [7; 8] and their connection to the self-learning process of the future professional translator, developing their competence and critical thinking [9; 10], implementing the principle of life-long education in translation studies.

Papers dealing with the future of AI-based translation [11] serve a particularly notable role in the academic discourse, analyzing the aspects of professional competitiveness and main operational threats for the human translator [12]. The issues of ethical usage of digital tools in translation [13] belong to one of fundamental aspects affecting the existence of the human civilization of the 21st century, and that is why the discussion is only starting in this field remaining a viable point for academic studies.

The aim of the study is to outline the shifts in the mechanism of formation of language and translation skills of future philologists – Germanists and translators on the basis of automatic translation developments and AI tools; to characterize the paradigm change in their professional traits, and to analyze advantages and threats of work with automated systems.

The general results of this study can be used in developing study courses in translation studies on the basis of the competence approach.

Results and discussion. Training a Germanic philologist is a lengthy and energy-consuming process requiring considerable effort from both the tutor and the intending translator. The main role is given to the principles of cooperation (creating a communicative bridge) and exchange/dissemination of practical experience aimed to avoid translation errors in typical sit-

uations leading to destroying that bridge. Becoming a qualified translator calls for a background of leading competences which sets the professional apart from representatives of other fields related to the dissemination of knowledge (teacher, tutor, psychologist, psychoanalytic, etc.). The language competence is primarily important as a basic skill of understanding lingual units and structures for relevant transformation of: 1) linguistic universals; 2) grammar categories, meanings, and forms; 3) semantics and pragmatics of the message in L1 and L2. The work with lingual-social and cultural competence for understanding the historic and cultural subtext, social values, morals, accepted forms of adhering to traditions and norms of manifesting 1) general messages; 2) realia of the communicative situation, and 3) the author's position in a particular text.

The logical consequence of honing the above-mentioned competences is the acquisition of a translator's competence as a complex skills of adequate interpretation of the meaning and author's message by the philologist aiming to ensure mutual understanding of representatives of both cultures.

Realia of the late 20th – early 21st centuries force the higher education institutions to overhaul the competence approach towards training a translator by including the need for digital competence. This competence is needed for accelerating the search for required data, simplifying its processing, and increasing the number of channels of distribution of the modified text. The active usage of modern applications and AI-driven translation models allow the user to understand and process the text corpus faster. Getting a ready text in mere minutes enables the professional to avoid monotonous grueling work of finding the required meaning of a word, corresponding realia. What is more, it frees up time for reviewing and proof-reading the machine translation while preparing the final version of the work.

Rapid and somewhat unexpected spread of AI-assisted translation models, including DeepL, ChatGPT, Geminy, Claude, DeepSeek as well as local AI models, has profoundly changed the approaches of the translator towards a text: from checking meanings of single words outside their context and subtext using a relatively simple Google Translate service (which implied self-correction, self-motivation, and thus self-improvement) they moved on to using complex intellectual systems offering a context-sensitive meaning of the word.

It should also be noted that the perspective itself on the source text has changed as skipping the stage of hard routine – and purely human – work with the text also means omitting learning opportunities for the philologist/translator. Those used to allow the translator to enrich their practical experience and to remain a competitive narrow specialist. Overactive use of machine translation, without constant review and self-correction, forces teachers, psychologists, and methodologists to raise an issue of lowering the creativity levels of intending philologists and potential losses in skills of search, analysis, operating, and transforming the source text without losing its semantic load.

One of topical concepts in the modern translation studies is considered to be "an overreliance" [10] as an inhibiting factor in developing language and translation skills of a philologist in the context where the focus of attention shifts from translation proper towards final corrections in the machine-translated text. The logical outcome of the emergence of post-editing which, in turn, is dependent of the available digital tools, seems to be the decrease in cognitive abilities of a narrow specialist: their ability to memorize data, to analyze language units and to choose meanings from a list at hand. So, while digital tools become increasingly more accessible and easier to use, academics have considerable worries about teaching sufficient level of skills and keeping language, lingual and translation competences up to standard as the professional basis of modern translators.

Linguosocial competency also merits a close look regarding the emergence of the post-editing skill of translators. Lower standards of this competency in the training process may lead to the loss of the philologist's ability to represent culturally and historically significant phenomena by means of language units. That is why the analysis of cultural nuances is viewed as a human translator's responsibility [16].

Latest papers [2] clearly note the gradual acceptance models adopted by student translators working with automated translation. This process generally goes without taking long-term risks into account: developing the overreliance on the automated translation is defined as a mechanism of accepting AI-generated outputs without proper fact-checking [5]. Such unconditional trust in the recommendations of translation models occasionally highlights issues with a specialist's critical thinking, insufficient analytical work, lack of experience in making independent decisions, etc. Among the typical "acceptance models" offered by AI-assisted tools for ready-made translation solutions, which serve as the basis for excessive dependence, the following should be noted: 1) the specialist's positive feelings resulting from high-quality performance of technologies and, consequently, a decrease in motivation for self-correction (self-checking, self improve-

ment) – the extended TAM-model [14]; 2) task-technology fit – integrated UTAUT-model [17]; 3) the activation of "cognitive economy" [15] regarding acceptance of the proposed material instead of thorough post-editing, etc.

It is worth mentioning that the development and active implementation of powerful AI-based models have led to an almost paradoxical situation: the use of machine translation 1) saves the specialist's time and effort; 2) allows for the optimization of tedious routine work with linguistic units at various levels; 3) offers contextual options, but at the same time 1) leads to a decline in the level of general humanities education, as the potential for self-development and self-improvement is lost, and skills in logical and critical analysis are diminished; 2) poses a risk of atrophy in linguistic competence – a decline in motivation to work with vocabulary and cultural realities; 3) relies predominantly on passive language skills in the consumption of a ready-made "product" rather than on one's own intellectual efforts [10; 15].

Thus, the early 21st century is marked by the need to rethink and overhaul the entire process of training competent philologists – future translators – in higher education institutions. The active use of translation models when working with texts of various styles serves as an unambiguous impetus for recognizing the phenomenon of post-editing and teaching future philologists the principles of working with it in a balanced and conscious manner. It is advisable to expand the list of core competencies for translators in educational programs by adding proficiency in machine translation and clarifying the pedagogical and methodological foundations for developing this skill [8].

A similarly effective approach to improving the educational process for philologists and translators appears to be a systematic exploration of concepts such as "machine translation literacy" and "task-technology fit" within specialized courses, with the aim of enhancing digital literacy and teaching students how to select the appropriate tools for maximum efficiency [14; 17]. That is why a productive approach to addressing these issues could be the implementation of a course titled "Information Technology in Translation," in which students would consciously work with translation models in a controlled educational environment grounded in academic integrity, principles of morality and ethics, while developing their active language skills within the "text author–editor" dichotomy. Among the effective types of exercises for "sharpening" critical analysis skills, the following are recommended: a comparative analysis of the source text with its machine-translated and human-translated versions, tasks to identify errors in machine translation, reflective journals, and so on [2]. It is also proposed to develop criteria for evaluating the interaction between humans and machine translation models to mitigate future risks [18].

Conclusions. Information and communication technologies currently function as an integral part of the educational process. This is particularly evident in the training and professional practice of translators as mediators between the source text and its equivalent, which has been adapted to meet the requirements of a specific language. The dichotomy between the positive and negative impacts of using digital tools in translation clearly points to an urgent need to modernize educational programs and syllabi for training German language specialists – future translators – and also signals the need to update the system of professional competencies.

We consider the study of principles for improving a translator's sociocultural linguistic competence based on AI-assisted translation models to be a promising area of research.

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