

FEATURES OF ARTIFICIAL INTELLIGENCE APPLICATION IN THE FIELD OF TRANSLATION

Badan A.A., Barankova Y.S.

National Technical University «Kharkiv Polytechnic Institute», Kharkiv

Artificial intelligence is increasingly used in translation, changing both the nature of linguistic work and the structure of the professional environment. Neural machine translation systems, such as Google Translate and DeepL, offer fast multilingual communication and are widely supported by CAT tools like SDL Trados and MemoQ, which enhance translation memory, terminology alignment, and consistency across texts. AI-driven assistants such as Grammarly and LanguageTool help refine grammar and stylistic tone, and real-time speech translation tools are becoming essential in international business and digital media.

Innovative technologies also extend to dubbing and voiceover automation, enabling rapid multilingual adaptation of video content without traditional voice actors. Solutions such as EzDubs illustrate the growing relevance of AI in audiovisual translation. These systems, while effective, still struggle with cultural context, emotional tone, and idiomatic expressions, highlighting the limits of full automation. The use of copyrighted content for AI training and the ethical implications of synthetic voices raise further concerns, especially as these systems become more integrated into public communication.

Despite their limitations, AI tools support productivity and improve access to global communication, but they also reshape the translator's role. Specialists increasingly focus on post-editing, cultural adaptation, and maintaining the integrity of meaning across languages. The future of translation lies in a balanced collaboration between human expertise and artificial intelligence, where technology enhances human contribution without replacing it.

References:

1. Doherty S., The impact of translation technologies on the process and product of translation, *International Journal of Communication*, pp. 8-9, 2016. URL: <https://ijoc.org/index.php/ijoc/article/viewFile/3499/1573>
2. Alvarez-Vidal S., Oliver A., Assessing MT with measures of PE effort, *Universitat Oberta de Catalunya*. URL: https://openaccess.uoc.edu/bitstream/10609/150071/1/Assessing_MT_with_measures_of_PE_effort.pdf