

Ivan Savenko

Kyiv National University of Technologies and Design (Kyiv)

Scientific supervisor – associate professor Kseniia Kugai

EXPLORING THE IMPACT OF ARTIFICIAL INTELLIGENCE ON TRANSLATION: ADVANTAGES AND LIMITATIONS

In the modern world, where globalization and transnational communication are becoming increasingly prevalent, the role of translation is significantly expanding. Translators are faced with an ever-increasing volume of texts requiring translation, making it necessary to use new technologies to improve the efficiency and quality of their work. One of the most promising areas in this field is the use of artificial intelligence.

The aim of the research is to investigate the effectiveness of new technologies, namely the use of artificial intelligence in translation, to identify the advantages and disadvantages of implementing such translation methods.

The concept of artificial intelligence delves into a multidisciplinary realm encompassing computer science, physics, chemistry, cybernetics, mathematics, psychology, philosophy, and various other fields (Tkachenko et al., 2014). Within the domain of computer science and computer linguistics, this area explores the formalization of challenges akin to those performed by humans. Artificial intelligence typically denotes the capacity of a computational system to undertake endeavors conventionally associated with human intellect, such as reasoning logically and acquiring knowledge.

Researchers A.V. Krasulia and M.V. Turchyna point out that artificial intelligence tools utilized in translation can greatly enhance the efficiency of translators overall, yet they are incapable of entirely substituting human translators.

Even for technical and official business translations, the intervention of a human translator for post-editing remains necessary (Krasulia et al., 2020).

Therefore, AI-based translation programs are capable of greatly simplifying our lives. We no longer need any paper dictionaries, just a smartphone. However, there are nuances, and some of them are quite significant.

Firstly, automated translation is usually literal, without considering the peculiarities of a particular language and often with errors. However, where templates are used (legal or governmental documents), these tools provide fairly good results. AI-powered translation tools can help travelers navigate local menus, signage, and schedules when shopping online on foreign websites. However, medical and pharmaceutical documents, complex literary works, reports, and contracts should not be translated in this way (Kozhevnikova, 2019). Incorrect translation can have serious consequences, affecting the reputation of companies.

Secondly, the peculiarities of language are an important aspect of translation work. A striking example is English idiomatic expressions. Artificial intelligence cannot understand all language subtleties. Language does not have clear and precise rules, like, for example, chess. The machine waits for the only correct answer to be given, and in the case of translation, it may not exist. Even two translators sometimes cannot agree on the correctness of a translation. Describing the unique nature of language, Michael Hausman, a leading researcher and lecturer at Singularity University, notes, “Language is the Wild West in terms of data” (1).

Thirdly, no matter how easy it may seem to work with artificial intelligence, one should not forget about the capabilities of the human mind. Only a human can take into account the emotional component of translation and deeply understand all grammatical and lexical exceptions. In general, it is worth remembering that frequent use of these inventions can have a negative impact on the psyche. When

working with an automatic translator, the brain is rarely engaged in performing the task, as the information is readily available, so there is no need to deeply analyze the text.

Therefore, considering the rapid development of technology, we must understand that artificial intelligence can surpass humans. For that reason, we must adapt to the new, striving to achieve the most effective symbiosis of a professional translator and a machine.

REFERENCES

1. Eksperty poiasnyly, chomu shtuchnyi intelekt poky ne spravliaietsia z perekladom krashche liudyny. *Perekladu.com*. Retrieved from <https://perekladu.com/eksperty-poiasnyly-chomu-shtuchnyi-intelekt-poky-ne-spravliaietsia-z-perekladom-krashche-liudyny>
2. Kozhevnikova, O. (2019). Koly mashynnyi pereklad zaminyt liudskiy pereklad? Retrieved from *KLS. Biuro perekladiv*. <https://kls-agency.com.ua/blog/2019/06/12/koli-mashinnij-pereklad-zaminit-lyudskij-pereklad/>
3. Krasulia, A., Turchyna, M. (2020). Vykorystannia instrumentiv shtuchnoho intelektu: porivnialnyi analiz system avtomatyzovanoho perekladu. *Lvivskiy filolohichnyi chasopys*, (8). 108-113. <https://doi.org/10.32447/2663-340x-2020-8.17>
4. Tkachenko, O.R., Kustra, N.O., Pavliuk, O. M., & Polishchuk, U.V. (2014). *Zasoby shtuchnoho intelektu. Navchalnyi posibnyk*. Lviv: Vydavnytstvo Lvivskoi politekhniky.