

А.Д. Давыдова, 3 курс

Научный руководитель – Е.В. Пискун, старший преподаватель

Полесский государственный университет

Machine Translation refers to software that uses various forms of AI (Artificial Intelligence) to automatically translate texts. The most prominent feature of it is that it doesn't require human intervention. Nowadays in the context of globalization and constant AI development machine translation becomes popular among people all over the world. It provides decent translations of texts of any difficulty and size within seconds. Machine translation services are easily accessible and convenient as it may seem. Does it mean that human translation is no longer needful? The purpose of the article is to establish pros and cons of machine translation comparing to human translation, as well as reliability and accuracy of machine translation in different fields. The purpose is to establish the features of machine translation, its strengths and weaknesses. By comparing the translations of 30 texts and 50 sentences given by most popular machine translation services (such as Google translator, Yandex translator, Reverso and Cambridge Translator) and people it appears clear that machine translation and AI services don't take contexts into consideration and provide literal translations without further modifications based on grammar and vocabulary specifics of the languages. For example, only Google translator translated the Russian proverb "Без труда не выловишь рыбку из пруда" into English correctly, "No pain, no gain". Other services didn't take the context into consideration and offered literal translations such as "You will not easily catch fish from work" and similar to this one.

Nevertheless, when it comes to translating technical and scientific texts and sentences machine translation services offer accurate equivalents and correct use of terminology. For example all four machine translators offered the identical translation for the Russian scientific sentence "Измерения дисперсии оптического вращения на спектрополяриметрах дают информацию о тонких деталях структуры кристаллов, о малейших изменениях их структуры и симметрии, обнаруживая ничтожную деформацию молекул". All four translations are the same "Measurements of the optical rotation dispersion on spectropolarimeters provide information about the fine details of the crystal structure, about the slightest changes in their structure and symmetry, detecting negligible deformation of molecules".

However, when translating literary texts machine translation services often make mistakes. For example only Google translator performed an accurate translation of a quatrain:

Мне нравится, что вы больны не мной,

Мне нравится, что я больна не вами,

Что никогда тяжелый шар земной

Не уплывет под нашими ногами.

Which looked like this:

I like that you are not sick with me,

I like that I am not sick with you,

That the heavy globe of the earth will never

float away under our feet.

The other platforms offered another translation which is clearly wrong:

I like that you're not sick of me.,

I like that I'm not sick of you.,

What is never a heavy globe of the earth

It won't float away under our feet.

As one can see machine translation is not always correct. When it comes to literary texts, idioms, proverbs and other cultural elements machine translation requires further human editing and fixing. It doesn't understand the context and the subtleties of artistic style therefore the translation of such field may seem like meaningless gibberish without human intervention.

However the translations of specific terminology and scientific contents turn out excellent and don't require further human intervention and editing. The research shows that machine translation and human translation provide different roles in the translation industry.

While human translation offers most accurate translation of literary, machine translations suits better for translation of scientific texts and terminology and can't be trusted with artistic literature, which seems like a disadvantage.

However machine translators still remain useful despite the fact that it's translation is not always correct. The translation process happens instantly, enabling users to find the answers they are looking for quickly.

Based on the conclusion it's suggested using machine translation as a tool to assist human translators and interpreters rather than the main source of translation. The cons show that one can't rely solely on machine translation services to perform accurate translations. Machine translation services can help translators and interpreters speed up the translation process and increase the productiveness but it's unlikely that it will be able to perform on its own and completely replace human work.

Literature cited

1. What is Machine Translation and How Does it Work? [Электронный ресурс]. – Режим доступа: <https://medium.com/nerd-for-tech/what-is-machine-translation-and-how-does-it-work-2916a6202042>. – Дата доступа: 09.03.2025.

2. Machine Translation: What is it and how it has influenced the translation work in international organizations like FAO of the UN [Электронный ресурс]. – Режим доступа: <https://www.linkedin.com/pulse/machine-translation-what-how-has-influenced-work-like-giulini>. – Дата доступа: 09.03.2025.