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MACHINE TRANSLATION OF TECHNICAL TEXTS: ADVANTAGES AND DISADVANTAGES IN MODERN LINGUISTIC PRACTICE

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In today's era of rapid technological advancement, machine translation (MT) is no longer merely an auxiliary tool but has become an indispensable component of professional communication, particularly in technical fields. A thorough understanding of the types and characteristics of machine translation is essential for future linguists, as technical texts demand extremely high levels of accuracy and terminological consistency [1, p. 27]. Modern MT systems have evolved from simple word-for-word translation to complex neural networks that take context and syntactic structures into account, forming the basis for their classification in contemporary research [2, p. 96].

When evaluating the advantages of machine translation, its speed, ability to process large volumes of data, and efficiency in resource usage are particularly noteworthy. This is especially true in the context of technical documentation, such as user manuals or equipment specifications, where MT enables the rapid generation of draft texts – an invaluable benefit under tight deadlines. In our view, MT is most effective for technical texts, as these materials typically lack emotional or figurative language, which often challenges translation algorithms. Furthermore, researchers emphasize that automated systems help maintain terminological consistency in large projects, mitigating the inconsistencies that can arise from human variability in naming components or processes [3].

Despite significant progress, the limitations of machine translation remain noticeable, particularly when dealing with complex German grammatical structures. A key issue is the inability of MT systems to fully capture semantic nuances and specialized professional jargon, which can result in critical errors in technical instructions. We consider the greatest risk to be the so-called «illusion of

correctness»: neural networks produce texts that appear highly natural yet may contain factual inaccuracies or misrepresent technical processes.

At the current stage of the translation profession, a new paradigm is emerging: the traditional «human versus machine» opposition is gradually shifting toward effective collaboration. The most productive approach to working with technical texts involves using MT followed by mandatory human post-editing (MTPE – Machine Translation Post-Editing). This method preserves the speed advantages of algorithms while ensuring the accuracy and reliability of translations that only a human expert can guarantee. Consequently, the future of the translation profession lies not in competing with artificial intelligence but in mastering the skills necessary for high-quality post-editing of neural network outputs.

In conclusion, machine translation is a powerful tool that, when applied correctly, significantly facilitates work with technical documentation. Its primary advantages include speed and terminological consistency, while its main limitations are reduced flexibility and the potential for semantic distortion. Only a deep understanding of both the language and the specific technical domain enables translators to leverage MT effectively without compromising the quality of the final product.

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