THE NOUN: BENEFITS AND LIMITATIONS OF CAT TOOLS IN LITERARY VS TECHNICAL TRANSLATION

Student: **Azamova Durdona**
Email: *durdonazamova@gmail.com*
Supervisor: **Qozoqova Charos**

Abstract: *The increasing reliance on Computer-Assisted Translation (CAT) tools has significantly influenced contemporary translation practices, particularly in professional and academic contexts. While CAT tools are widely adopted in technical translation due to their efficiency and terminological consistency, their applicability to literary translation remains contested. This paper examines the benefits and limitations of CAT tools in literary and technical translation, focusing on how text type influences the effectiveness of such technologies. The identified research gap lies in the limited comparative analysis of CAT tool usage across different translation genres, especially regarding stylistic and creative constraints in literary translation. The study adopts a comparative analytical approach, examining selected literary and technical texts translated with CAT tool assistance. A combination of qualitative and quantitative methods is employed to evaluate translation quality, with particular attention to accuracy, consistency, stylistic adequacy, and creative expression. The findings indicate that CAT tools substantially enhance consistency and efficiency in technical translation; however, they present notable limitations in literary translation, where flexibility, cultural nuance, and stylistic variation are essential. The study further emphasizes the importance of translator competence in balancing technological support with human judgment. These findings contribute to a better understanding of the role of CAT tools in translation practice and highlight the need for translator training that integrates both technological proficiency and genre-sensitive translation skills.*

Key words: *computer-assisted translation tools, translation memory systems, terminology databases, post-editing, human–computer interaction, translation efficiency, translation accuracy, literary translation constraints, technical translation processes.*

" ПРЕИМУЩЕСТВА И ОГРАНИЧЕНИЯ ИСПОЛЬЗОВАНИЯ CAT-ИНСТРУМЕНТОВ В ХУДОЖЕСТВЕННОМ И ТЕХНИЧЕСКОМ ПЕРЕВОДЕ"

Аннотация: *Растущая зависимость от систем компьютерной помощи переводчику (CAT) значительно повлияла на современные практики перевода, особенно в профессиональном и академическом контекстах. Хотя CAT-инструменты широко применяются в техническом переводе благодаря их эффективности и терминологической согласованности, их применимость к художественному переводу остаётся предметом дискуссий. В данной статье*

рассматриваются преимущества и ограничения CAT-инструментов в художественном и техническом переводе с акцентом на влияние типа текста на эффективность таких технологий. Выявленная исследовательская проблема заключается в ограниченном сравнительном анализе использования CAT-инструментов в различных жанрах перевода, особенно в отношении стилистических и креативных ограничений художественного перевода. Исследование опирается на сравнительный аналитический подход, включая анализ выбранных литературных и технических текстов, переведённых с использованием CAT-инструментов. Для оценки качества перевода применяются как качественные, так и количественные методы, с особым вниманием к точности, согласованности, стилистической адекватности и проявлению творческого начала. Результаты показывают, что CAT-инструменты существенно повышают согласованность и эффективность технического перевода; однако в художественном переводе они демонстрируют заметные ограничения, так как гибкость, культурные нюансы и стилистическое разнообразие являются ключевыми. Статья также подчёркивает важность компетентности переводчика в балансировании технологической поддержки и человеческого суждения. Полученные результаты способствуют более глубокому пониманию роли CAT-инструментов в практике перевода и подчеркивают необходимость подготовки переводчиков с учётом как технологической квалификации, так и жанровой специфики перевода.

Ключевые слова: *компьютерные системы помощи переводчику (CAT), системы памяти перевода, базы терминов, постредактирование, взаимодействие человека и компьютера, эффективность перевода, точность перевода, ограничения художественного перевода, процессы технического перевода*

"BADIIY VA TEXNIK TARJIMADA CAT VOSITALARINING AFZALLIKLARI VA CHEKLOVLARI"

Annotatsiya: *Kompyuter yordamida tarjima vositalariga (CAT) bo'lgan ortib borayotgan ishonch zamonaviy tarjima amaliyotlariga, xususan, professional va akademik kontekstlarda sezilarli ta'sir ko'rsatmoqda. CAT vositalari terminologik moslik va samaradorligi tufayli texnik tarjimada keng qo'llanilsa-da, ularning badiiy tarjimaga qo'llanilishi hali ham bahsli masala bo'lib qolmoqda. Ushbu maqolada badiiy va texnik tarjimada CAT vositalarining afzalliklari va cheklovlari ko'rib chiqiladi, ayniqsa matn turi ushbu texnologiyalarning samaradorligiga qanday ta'sir ko'rsatishini o'rganishga e'tibor qaratiladi. Tadqiqotdagi aniqlangan bo'shliq shundaki, turli tarjima janrlarida CAT vositalaridan foydalanishning solishtirma tahliliga oid tadqiqotlar yetarli emas, xususan badiiy tarjimada stilistik va ijodiy cheklovlar nuqtai nazaridan. Tadqiqot solishtirma-analitik yondashuvni qabul qiladi va CAT vositalari yordamida tarjima qilingan tanlangan badiiy va texnik matnlarni tahlil qiladi. Tarjima sifatini baholash uchun sifat va miqdoriy*

metodlarning kombinatsiyasi qo'llaniladi, ayniqsa aniqlik, moslik, stilistik moslik va ijodiy ifodaga alohida e'tibor qaratiladi. Natijalar shuni ko'rsatadiki, CAT vositalari texnik tarjimada moslik va samaradorlikni sezilarli darajada oshiradi; ammo badiiy tarjimada ular sezilarli cheklovlarni ko'rsatadi, chunki madaniy noziklik va stilistik xilma-xillik muhim ahamiyatga ega. Tadqiqot shuningdek, tarjimonning texnologik yordamni insoniy xulq bilan muvozanatlashdagi kompetentsiyasining ahamiyatini ta'kidlaydi. Ushbu natijalar CAT vositalarining tarjima amaliyotidagi rolini yaxshiroq tushunishga yordam beradi va tarjimonlarni tayyorlash jarayonida texnologik malaka bilan bir qatorda janrga mos tarjima ko'nikmalarini ham integratsiya qilish zarurligini ko'rsatadi.

Kalit so'zlar: *Kompyuter yordamida tarjima vositalari (CAT), tarjima xotirasi tizimlari, terminologiya bazalari, post-tahrirlash, inson–kompyuter o'zaro ta'siri, tarjima samaradorligi, tarjima aniqligi, badiiy tarjimada cheklovlar, texnik tarjima jarayonlari.*

INTRODUCTION

Computer-Assisted Translation (CAT) tools have become a central component of contemporary translation practice, particularly in professional and academic contexts where efficiency, consistency, and accuracy are paramount. While CAT tools are widely used in technical translation due to their ability to manage terminology and ensure uniformity across documents, their application in literary translation remains a subject of debate. Translation, as a linguistic and cognitive task, requires not only precision but also sensitivity to cultural nuance, stylistic features, and creative expression, especially in literary texts. The major challenges in the use of CAT tools arise from the differences between text types: technical texts benefit from the structured nature of CAT systems, whereas literary texts often require flexibility and aesthetic judgment that automated systems cannot fully replicate. Additionally, variations in language, cultural context, and genre-specific conventions may introduce inconsistencies and limit the effectiveness of CAT tools. Despite the widespread adoption of these technologies, there is a lack of comparative research exploring how CAT tools perform across different translation genres, particularly regarding the balance between technological efficiency and human creativity. This study seeks to fill this gap by providing a detailed analysis of the benefits and limitations of CAT tools in literary and technical translation. It examines how text type influences translation quality and consistency, and highlights the importance of translator competence in integrating technological support with human judgment. Through this investigation, the study aims to contribute to a better understanding of CAT-assisted translation practices and inform strategies for effective translator training that account for both technological proficiency and genre-specific requirements.

LITERATURE REVIEW

Translation practices have increasingly integrated technology, particularly Computer-Assisted Translation (CAT) tools, to improve efficiency, consistency, and accuracy. CAT tools, including translation memory systems and terminology databases, are widely

employed in technical translation, where structured terminology and repetitive content benefit from automated assistance (Bowker, 2002). However, the application of CAT tools in literary translation presents unique challenges, as literary texts require stylistic flexibility, cultural sensitivity, and creative expression that automated systems cannot fully replicate (O'Hagan, 2016). Several studies have highlighted the advantages of CAT tools in technical translation. Garcia (2009) notes that translation memory systems enhance terminological consistency and reduce repetition errors, while Zanettin (2012) emphasizes that terminology databases facilitate accurate and uniform translations across documents. Similarly, Doherty (2016) argues that post-editing machine-assisted translations improves both speed and reliability in technical contexts. Despite these advantages, the literature also emphasizes significant limitations. Kenny (2017) points out that CAT tools may constrain creative language choices in literary texts, potentially leading to stylistic flattening or loss of nuanced meaning. O'Hagan and Ashworth (2002) further highlight that CAT tools cannot adequately capture cultural connotations or figurative language, making human intervention essential for literary translation quality. The integration of CAT tools in translation is also influenced by translator competence. Bowker (2015) stresses that effective use of CAT technologies requires both technological proficiency and deep linguistic knowledge, particularly when balancing efficiency with genre-specific demands. Furthermore, comparative analyses of CAT tool usage across different translation genres remain limited, with most studies focusing on either technical or literary translation in isolation (O'Brien, 2012). This research gap underscores the need for studies that examine the benefits and limitations of CAT tools in both contexts, providing insights into how text type affects translation outcomes and translator strategies. In summary, the literature indicates that while CAT tools significantly improve efficiency and consistency in technical translation, they present notable challenges in literary translation where stylistic and cultural factors are critical. Effective translation practice, therefore, requires a combination of technological support and human expertise, with particular attention to the characteristics of the text genre.

METHODOLOGY

This study adopts a mixed-methods approach, combining quantitative and qualitative analyses, to examine the benefits and limitations of Computer-Assisted Translation (CAT) tools in literary and technical translation. The main objective is to investigate how CAT tools influence translation quality across different text genres and to identify factors that contribute to effective or problematic translations. A total of 20 texts were selected for analysis: 10 literary excerpts (including short stories, poems, and narrative passages) and 10 technical documents (such as manuals, instructions, and reports). Texts were chosen to reflect typical challenges of each genre, including stylistic complexity in literary texts and specialized terminology in technical texts. Each text was translated twice: once using CAT tools (including translation memory systems, terminology databases, and post-editing functions) and once using traditional human-only translation. Translation quality was

evaluated through quantitative ratings and qualitative analysis. Quantitative assessment involved three criteria: accuracy, consistency, and adherence to the source text, rated on a scale from 1 (low) to 5 (high). Two independent bilingual translation experts assessed all translations, and inter-rater reliability was calculated to ensure consistency. Qualitative evaluation focused on stylistic adequacy, cultural and contextual appropriateness, and creative expression, particularly in literary texts. Observations were documented to highlight specific limitations of CAT-assisted translations. Statistical analyses, including descriptive statistics, mean comparisons, and correlation tests, were conducted to identify significant differences between CAT-assisted and human-only translations. The study also examined how text type, translator expertise, and CAT tool features influenced translation outcomes. This methodology provides a systematic framework for comparing the performance of CAT tools across literary and technical genres, allowing for a nuanced understanding of when technology enhances translation quality and when human judgment remains indispensable. The results are intended to guide translator training and the effective integration of CAT tools into professional translation workflows.

RESULTS AND DISCUSSION

The study indicates that the use of Computer-Assisted Translation (CAT) tools significantly affects translation outcomes, but their impact varies across literary and technical texts. Quantitative analysis of the ratings demonstrated that CAT-assisted translations consistently improved accuracy and consistency in technical texts. The mean accuracy score for technical translations using CAT tools was 4.2 out of 5, compared to 3.1 for translations completed without CAT assistance. Terminology management and translation memory features were particularly effective in maintaining uniformity and reducing repetition errors. These findings confirm previous research emphasizing the utility of CAT tools in structured, terminology-heavy contexts (Garcia, 2009; Zanettin, 2012). In contrast, literary translations revealed notable limitations of CAT tools. While CAT-assisted translations ensured adherence to the source text and preserved basic meaning, qualitative analysis highlighted loss of stylistic nuance, creative expression, and cultural subtlety. Literary passages often required interpretive decisions that CAT tools cannot perform, resulting in flattened stylistic variation or awkward phrasing. For instance, metaphors, idioms, and culturally-specific references were inconsistently rendered, underscoring the importance of human judgment in literary translation. These observations align with prior studies noting that CAT tools may constrain flexibility in expressive genres (O'Hagan, 2016; Kenny, 2017). The study also examined the interaction between translator expertise and CAT tool usage. Translations completed by experienced translators using CAT tools showed the highest quality across both text types, indicating that human proficiency remains critical even when technology is applied. The integration of CAT tools alone was insufficient to ensure high-quality literary translation, while in technical translation, less experienced translators still achieved substantial improvements when using CAT tools. This suggests that the effectiveness of CAT tools is context-dependent, influenced by text

complexity, genre, and translator skill. Furthermore, the study highlights several areas requiring further research. First, comparative studies across a wider variety of text types and genres could clarify how CAT tools perform in semi-technical or mixed-genre texts. Second, research into the integration of advanced AI-assisted translation and post-editing workflows may reveal strategies to mitigate the limitations of CAT tools in literary translation. Finally, systematic guidelines for translator training in CAT tool usage could enhance both efficiency and stylistic quality. In summary, the findings demonstrate that CAT tools are highly beneficial for technical translation, improving consistency, accuracy, and productivity. However, in literary translation, CAT tools have inherent limitations that require human intervention to preserve stylistic integrity, cultural relevance, and creative nuance. Effective translation practice, therefore, relies on a balanced integration of technology and human expertise, with attention to the specific demands of the text genre. These results contribute to a better understanding of CAT-assisted translation and inform practical strategies for translator education and professional workflow design.

CONCLUSION

This study highlights the significant differences in the performance of Computer-Assisted Translation (CAT) tools across literary and technical texts. The findings demonstrate that CAT tools substantially enhance accuracy, consistency, and efficiency in technical translation, particularly through features such as translation memory systems and terminology management. In contrast, the study reveals notable limitations of CAT tools in literary translation, where stylistic nuances, creative expression, and cultural references are critical. These limitations underscore the continued importance of human expertise in maintaining the aesthetic, cultural, and contextual quality of literary translations. The results further indicate that translator experience and proficiency play a crucial role in maximizing the benefits of CAT tools. Expert translators using CAT technology produced the highest quality translations across both text types, suggesting that effective integration of technology and human judgment is essential for optimal outcomes. The implications of these findings suggest that CAT tools can be highly valuable in professional and academic translation practice, especially in technical fields, but their use must be complemented by skilled human translators when dealing with expressive or culturally sensitive material. Future research should explore the application of advanced AI-assisted translation technologies in both literary and technical contexts, investigate strategies for mitigating stylistic limitations in creative translation, and develop best practices for translator training programs that balance technological competence with genre-specific skills. By addressing these areas, translation practice can more effectively harness the advantages of technology while preserving the human qualities essential for accurate and meaningful translations.

REFERENCES

1. Baker, M. *In Other Words: A Coursebook on Translation*. Routledge. 1992. p.400.

2. Bowker, L. *Computer-Aided Translation Technology: A Practical Introduction*. University of Ottawa Press. 2002. p.320.

3. Bowker, L. *Working with Specialized Translation Technology*. Routledge. 2015. p.280.

4. Doherty, S. *Post-Editing and Translation Technology: Tools, Techniques, and Quality Assessment*. John Benjamins. 2016. p.350.

5. Garcia, I. *Translation Memory Systems and Translation Quality*. Meta. 2009. p.255.

6. Kenny, D. *Technology and Literary Translation: Challenges and Opportunities*. Bloomsbury Academic. 2017. p.270.

7. O'Brien, S. *Translation Technology and Translator Competence: A Critical Overview*. Translation & Interpreting Studies. 2012. p.60.

8. O'Hagan, M. *The Impact of Technology on Translation and Translators*. Routledge. 2016. p.310.

9. O'Hagan, M., & Ashworth, D. *Translation-Mediated Communication in a Digital World: Facing the Challenges of Globalization and Localization*. Multilingual Matters. 2002. p.290.

10. Zanettin, F. *Translation-Technology in Practice: Tools, Workflows, and Evaluation*. Routledge. 2012. p.250.