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THE ROLE OF GENERATIVE AI IN LITERARY TRANSLATION: OPPORTUNITIES, LIMITATIONS AND HUMAN POST-EDITING

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Abstract. The rapid development of generative artificial intelligence has introduced new possibilities for literary translation. Unlike conventional machine translation systems, generative AI models can produce context-sensitive, stylistically varied, and relatively fluent translations while processing large amounts of literary text. However, literary translation involves more than the transfer of lexical and grammatical information between languages. It requires the preservation of narrative voice, metaphorical meaning, cultural references, stylistic nuance, ambiguity, emotional intensity, and authorial intention. This study examines the role of generative AI in literary translation, focusing on its opportunities, limitations, and interaction with human post-editing. The research employs a qualitative comparative approach based on the analysis of existing scholarship on artificial intelligence, machine translation, literary translation, and translator intervention. Particular attention is given to stylistic consistency, cultural references, figurative language, ambiguity, and pragmatic meaning. The findings indicate that generative AI can significantly accelerate the production of preliminary translations and support translators in repetitive or linguistically predictable sections. Nevertheless, human post-editing remains essential when literary meaning depends on cultural context, aesthetic effect, intentional ambiguity, or complex narrative voice. The study therefore conceptualizes generative AI not as a complete replacement for literary translators but as an assistive technology within a human-controlled translation process.

Keywords: generative artificial intelligence, literary translation, machine translation, post-editing, translator, cultural context, literary style, human–AI collaboration.

Introduction. Literary translation has traditionally been regarded as one of the most complex forms of translation because literary texts communicate several layers of meaning simultaneously. A literary work does not simply convey information; it creates an aesthetic experience through language, imagery, rhythm, symbolism, characterization, narrative perspective, and cultural references. Consequently, a successful literary translation requires the translator to make decisions that cannot always be reduced to direct lexical equivalence.

The emergence of generative artificial intelligence has significantly changed discussions surrounding translation technologies. Large language models are capable of generating coherent texts, interpreting contextual relationships, paraphrasing complex passages, and producing stylistically differentiated outputs. These characteristics distinguish generative AI from earlier rule-based and statistical machine translation systems. Neural machine translation already represented a major technological development, but generative models have expanded the possibilities of interactive translation and text generation.

For literary translation, this development creates both opportunities and challenges. AI systems can rapidly generate alternative translations, identify possible meanings of ambiguous expressions, and assist translators in revising sentence structures. At the same time, generated translations may contain culturally inappropriate substitutions, stylistic simplifications, semantic distortions, or fabricated interpretations. The fluency of an AI-generated sentence may therefore conceal an underlying loss of literary meaning.

The central research problem of this study concerns the appropriate role of generative AI in literary translation. The study asks how generative AI can contribute to literary translation, what

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limitations emerge when AI-generated texts are used without professional intervention, and why human post-editing remains necessary.

The objective is to examine the potential of generative AI as an assistive instrument for literary translators and to identify the areas in which human interpretation remains indispensable.

The study applies a qualitative analytical methodology. Academic literature concerning literary translation, machine translation, neural language technologies, generative AI, and post-editing was examined to identify recurring opportunities and limitations associated with AI-assisted translation.

The analysis focuses on five dimensions of literary translation:

1. semantic accuracy;
2. literary style and narrative voice;
3. figurative and metaphorical language;
4. culture-specific references;
5. human post-editing and interpretive decision-making.

A comparative conceptual analysis was used to distinguish between the capabilities of generative AI and those of professional human translators. Rather than evaluating AI through a purely computational measure of translation accuracy, the study considers literary adequacy, because a grammatically correct translation may still fail to reproduce the artistic function of the source text.

The research also adopts a human-in-the-loop perspective. In this model, AI generates or assists with an initial translation, while a human translator evaluates, modifies, and validates the resulting text.

Opportunities Provided by Generative AI

One of the most significant advantages of generative AI is its ability to process large amounts of textual material rapidly. Literary translators working with lengthy novels, collections of short stories, or extensive manuscripts can use AI to produce preliminary translations and identify passages requiring greater attention.

Generative AI can also provide multiple translation alternatives. When a source sentence permits several interpretations, the system can produce different versions that the translator may compare. This functionality can be particularly useful during the drafting stage, where the translator is exploring possible syntactic and lexical solutions.

Another important advantage is stylistic adaptation. Generative AI can be instructed to produce formal, archaic, conversational, poetic, or contemporary language. Such flexibility provides translators with additional possibilities when attempting to reproduce the stylistic characteristics of a source text.

AI systems may also assist with terminology management. Recurrent names, expressions, fictional concepts, and specialized terms can be monitored throughout a large translation project. This can help improve consistency across chapters and sections.

Limitations of AI-Generated Literary Translation

Despite its fluency, generative AI does not necessarily reproduce the complete literary significance of a source text. Literary meaning frequently depends on information that is implicit rather than explicitly stated.

Metaphors represent one important difficulty. A metaphor can have both literal and culturally specific meanings. An AI system may generate a grammatically fluent equivalent while unintentionally changing the emotional or symbolic function of the original expression.

Irony presents another challenge. The literal meaning of an utterance may contradict the speaker's intended meaning. Without appropriate contextual interpretation, an AI-generated translation may reproduce the surface meaning while losing the irony.

Narrative voice is similarly difficult. Different literary characters may speak with distinct levels of education, social background, age, or emotional intensity. A generative model can sometimes standardize these differences, resulting in linguistically fluent but stylistically homogenized dialogue.

Culture-specific references constitute another major limitation. Food, customs, historical events, forms of address, traditional objects, and social practices may have no direct equivalent in the target

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culture. Replacing them with familiar target-language concepts may increase readability but simultaneously reduce cultural specificity.

The Importance of Human Post-Editing

Human post-editing is therefore not merely a grammatical correction stage. In literary translation, it represents an interpretive process.

The human translator evaluates whether the generated translation preserves the author's intended effect. This evaluation may require knowledge of literary history, cultural context, genre conventions, and pragmatic meaning.

Post-editing may involve several levels of intervention. At the lexical level, individual words may need to be replaced because their semantic range does not correspond precisely to the source expression. At the syntactic level, sentence structures may be reorganized to preserve rhythm and emphasis. At the stylistic level, the translator may modify diction to reproduce the author's narrative voice.

Human intervention becomes particularly important when the source text intentionally contains ambiguity. A machine-generated translation may attempt to resolve an ambiguous expression by selecting one interpretation. However, the ambiguity itself may be an intentional artistic feature and should therefore remain unresolved.

Human–AI Collaboration

The findings suggest that the most productive model is neither complete automation nor complete rejection of AI. Instead, literary translation can benefit from a collaborative workflow.

A possible workflow consists of five stages:

Source-text analysis → AI-assisted draft → Human evaluation → Literary post-editing → Final validation

In the first stage, the translator examines the source text and identifies culturally or stylistically sensitive elements. The second stage uses generative AI to produce one or more preliminary versions. The third stage involves human evaluation of semantic and contextual accuracy. The fourth stage focuses on literary style and cultural adequacy. Finally, the translator verifies the complete text for consistency and fidelity.

This model maintains human responsibility for the final translation while using AI to reduce routine workload and expand the range of possible translation solutions.

Conclusion. Generative AI is transforming the technological environment of literary translation. Its capacity to generate fluent text, provide alternative formulations, process large volumes of material, and support revision creates substantial opportunities for professional translators.

However, literary translation cannot be reduced to linguistic substitution. Literary meaning is frequently embedded in cultural references, metaphorical structures, narrative voice, ambiguity, emotional expression, and stylistic choices. These dimensions require interpretation rather than simple text generation.

The study demonstrates that human post-editing remains a fundamental component of AI-assisted literary translation. The translator's role is not eliminated by generative AI; rather, it shifts toward interpretation, evaluation, stylistic control, cultural mediation, and final quality assurance.

Generative AI can therefore be understood most effectively as a powerful assistive technology operating within a human-controlled translation process. The quality of future literary translation will depend not only on advances in AI models but also on the development of responsible workflows that preserve human literary judgment.

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