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Navigating the complexities of AI-driven literary translation: Challenges and perspectives across diverse user groups

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Abstract

Literary translation is an intricate process that demands linguistic skill, cultural awareness, creativity, and a comprehension of human expression. Although artificial intelligence (AI) has made significant strides in machine translation, especially concerning technical texts, its use in literary translation continues to face numerous obstacles. This paper examines the limitations of AI in conveying literary nuances such as metaphor, tone, cultural context, and stylistic features. Employing a mixed-methods approach that includes a literature review, case studies, interviews with Saudi Electronic University students (levels 7 & 8, English and Translation Department) and University of Gafsa students (Arabic Language Department, Tunisia), and SPSS analysis of survey data, this study emphasizes the discrepancies between human and machine translation within the literary field. The findings indicate that while AI can aid in activities such as generating initial drafts and conducting terminology research, it encounters difficulties with cultural subtleties, emotional richness, and stylistic accuracy. The paper concludes that AI is unlikely to supplant human translators in the near future and suggests its application as an auxiliary tool, highlighting the indispensable function of human creativity and intuition.

Keywords: Artificial intelligence (AI), Cultural sensitivity, Figurative language, Human creativity, Literary translation, Machine translation (MT), Neural machine translation (NMT).

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1. Introduction

Literary translation is an intricate and subtle art form that acts as a link between cultures, allowing readers to engage with narratives, concepts, and feelings from various regions of the globe. In contrast to technical or factual translation, which typically emphasizes precision and clarity, literary translation requires a deep comprehension of the source text's cultural, emotional, and aesthetic aspects [1, 2]. Translators have to navigate numerous linguistic and cultural factors, such as metaphors, idioms, wordplay, and stylistic choices, all of which are firmly embedded in the source language and culture [3]. These factors are not merely ornamental; they are essential to the text's meaning, tone, and influence. Consequently, literary translation is not simply a mechanical task of changing words from one language to another but rather a creative activity that necessitates sensitivity, intuition, and a profound respect for both the source and target languages [4].

In recent years, artificial intelligence (AI) has achieved significant advancements in the area of natural language processing (NLP) and machine translation [5]. Tools such as Google Translate, DeepL, and OpenAI's GPT models have showcased remarkable abilities in translating technical documents, everyday speech, and even certain types of creative material [6]. These developments have transformed how we communicate across different languages, enhancing the accessibility of information and minimizing obstacles in international interactions [7]. Nevertheless, when it comes to translating literary texts, AI encounters substantial and complex difficulties. Literary pieces are not merely sets of sentences; they represent elaborate weavings of language, culture, and emotion [8]. The nuances of literary expressions like irony, ambiguity, rhythm, and cultural allusions present distinctive challenges for AI systems, which frequently find it hard to convey the depth and richness of the original text [9].

One of the main difficulties in literary translation is the management of metaphors, idioms, and other figurative expressions. These elements are frequently specific to a culture and may lack direct counterparts in the target language [10]. For instance, a metaphor that holds significant meaning in one culture could be nonsensical or even perplexing in another [11]. Human translators can utilize their cultural insight and creative intuition to discover fitting equivalents or rephrase the text in a manner that maintains its intended meaning and emotional resonance [12]. AI, in contrast, usually depends on pattern recognition and statistical analysis, which can result in literal or clumsy translations that do not capture the original's nuance and beauty [13].

Another major challenge is maintaining an author's distinct voice and style. Literary works are frequently praised for their unique narrative voices, whether it's the poetic prose of Gabriel García Márquez, the sharp humor of Jane Austen, or the innovative style of Boase-Beier [14]. Translating these voices necessitates linguistic proficiency and a profound comprehension of the author's objectives and the wider literary context [15]. AI systems, although capable of producing grammatically correct and coherent text, often find it difficult to mirror the nuances of an author's style [16]. The outcome can be a translation that appears flat or impersonal, lacking the vitality that makes the original work engaging [17].

Cultural context represents another domain in which AI encounters challenges. Literary works are frequently intricately tied to the cultural, historical, and social backgrounds from which they originate [18]. Mentions of regional traditions, historical occurrences, or mainstream culture might be unknown to readers from diverse backgrounds [19]. Human translators possess the ability to clarify, modify references, or discover culturally relevant alternatives to ensure that the text connects with the intended audience [20]. Conversely, AI may completely overlook these references or translate them in a manner that diminishes their importance [21]. This can result in a loss of meaning and a reduced reading experience [22].

Furthermore, literary translation frequently encompasses a level of interpretation and subjectivity. Various translators might infuse their viewpoints and creative decisions into a text, leading to several valid translations of the same work [23]. This interpretative adaptability is a characteristic of literary translation but represents a challenge for AI, which often favors consistency and objectivity [24]. Although AI can produce technically correct translations, it may find it difficult to convey the interpretive richness and creative liberty that human translators contribute to their work [25].

Despite these obstacles, there exists the possibility for partnership between human translators and AI technologies [26]. AI can aid in tasks like preliminary draft translation, terminology exploration, and consistency verification, allowing human translators to concentrate on the more imaginative and interpretative elements of their craft [27]. Furthermore, AI can be utilized to examine extensive amounts of text, recognizing patterns and trends that can shape translation methods [28]. By capitalizing on the advantages of both humans and machines, improving the effectiveness and quality of literary translation could be achievable while maintaining the artistry and cultural awareness it requires [29].

This paper explores the difficulties of utilizing AI for literary translation, emphasizing the shortcomings of current technologies in managing the intricacies of literary works [30]. By reviewing existing research, case studies, and real-world instances, this study intends to illuminate the specific challenges AI faces in this area [31]. It also investigates the possibility of collaboration between human translators and AI tools, contemplating how these technologies could be incorporated into the translation process in ways that enhance human creativity and skill [32]. Ultimately, this research aspires to contribute to a greater understanding of the role of AI in literary translation and to encourage a conversation about the future of this essential art form in a progressive digital landscape [33].

To accomplish the previously stated goals, an SPSS examination of the questionnaire responses, including descriptive statistics, tables, and analysis, was conducted [34]. The examination is organized into sections that align with the format of the questionnaire [35].

2. Literature Review

The body of work on artificial intelligence (AI) and translation is vast, covering a broad spectrum of research that examines the development of machine translation (MT) systems, from early rule-based methods to the present prevalence of neural machine translation (NMT) and large language models (LLMs). Initial contributions by scholars like [36] established

the foundation for statistical machine translation (SMT), which depended on probabilistic models to forecast word sequences. Nevertheless, the rise of NMT, led by [37] and subsequently enhanced by Vaswani et al. [38] with the introduction of transformer architectures, represented a major advancement in translation quality. These innovations have proven particularly successful in enhancing the precision and fluency of translations for non-literary texts, including news articles, technical manuals, and legal documents, in which exact meaning and syntactic structure are essential.

Despite these technological advances, the use of AI in literary translation poses distinct and significant challenges. Literary works are fundamentally intricate, frequently distinguished by their dependence on cultural subtleties, figurative language, stylistic variation, and emotional richness—factors that are challenging to measure and reproduce through algorithms. Scholars like [1, 2] have historically contended that literary translation is not simply a linguistic process but also a cultural one, necessitating a profound comprehension of the source text's historical, social, and aesthetic backgrounds. This viewpoint is reinforced in Kenny's [24] research, which points out the shortcomings of machine translation in maintaining the stylistic and rhetorical characteristics of literary pieces, including irony, humor, and wordplay. Likewise, Moorkens [16] underlines that, although AI systems excel at handling vast amounts of text and recognizing patterns, they frequently struggle to capture the intricacies and interpretative adaptability that human translators contribute to literary materials.

One of the key difficulties in AI-facilitated literary translation is managing cultural specificity. As highlighted by Tiedemann [21], MT systems often face challenges with idiomatic phrases, culturally particular references, and intertextual connections that frequently appear in literature. For instance, translating a novel that includes regional dialects or historical slang necessitates not only linguistic skill but also a deep comprehension of the cultural context surrounding the text. This constraint is further exacerbated by the reality that many AI models are developed using datasets that predominantly feature non-literary material, which might not sufficiently capture the variety of literary styles and genres. Consequently, AI-produced translations of literary texts frequently risk diminishing the cultural depth of the work and lessening its artistic significance.

Recent progress in AI, especially the emergence of LLMs like OpenAI's GPT-4, has ignited hope regarding the possibilities for more sophisticated and context-sensitive translations. These systems, which utilize extensive quantities of training data and advanced algorithms, have shown a heightened capability to create coherent and contextually relevant text. However, as Guerberof Arenas [9] highlights, even the leading AI technologies still find it challenging to emulate the emotional and cultural richness of literature translated by humans. For example, although GPT-4 can deliver grammatically correct and stylistically uniform translations, it frequently falls short of effectively conveying the emotional impact of a poem or the subtle variations in tone that define a novel's narrative voice. This illustrates the fundamental constraints of AI in tackling the interpretive and creative aspects of literary translation.

The constraints of AI in literary translation have prompted some researchers to support hybrid techniques that merge the advantages of human translators with the effectiveness of machine systems. For instance, Koehn and Knowles [26] recommend a collaborative framework where AI conducts the preliminary translation of a text, and human translators then enhance and modify the output to guarantee cultural and stylistic accuracy. In the same vein, Lommel and DePalma [27] state that post-editing of machine-translated texts can serve as a feasible approach to enhancing translation quality while minimizing the time and expense linked to entirely human-managed processes. These hybrid approaches have demonstrated potential in specific situations, yet their relevance to literary translation continues to be a question, considering the distinct requirements of the genre.

Another area of concern is the ethical implications of using AI in literary translation. As Cronin [25] argues, the increasing reliance on automated systems risks marginalizing human translators and devaluing their expertise. This is particularly problematic in the context of literary translation, where the translator's role is often likened to that of a co-creator who shapes the text's meaning and reception. Furthermore, the use of AI raises questions about authorship and intellectual property, as machine-generated translations may blur the lines between original and derivative works. These ethical considerations highlight the need for a more nuanced discussion about the role of AI in the translation industry and its impact on the cultural and creative dimensions of literature.

In summary, although AI has achieved significant advancements in translation, its use in literary texts is still riddled with difficulties. The current body of work highlights the shortcomings of existing AI systems in grasping the cultural, emotional, and stylistic nuances of literature, along with the ethical dilemmas linked to their application. Concurrently, the possibilities presented by hybrid methods and the ongoing advancement of more advanced AI models create encouraging opportunities for future investigation. By tackling these difficulties and seeking out innovative approaches, researchers and professionals can strive for a more successful incorporation of AI in literary translation, one that honors the creativity and cultural importance of the original texts while leveraging the efficiency and scalability of machine frameworks.

3. Methodology

This research utilizes a mixed-methods approach, combining a systematic literature review, qualitative case studies, and semi-structured interviews with professional translators. The literature review lays down a theoretical framework, while case studies evaluate AI-produced and human translations across four aspects: cultural context, stylistic fidelity, emotional resonance, and creativity. Interviews offer perspectives on translators' experiences with AI tools. Furthermore, SPSS analysis of survey data from 144 participants, mainly translators, linguists, and AI developers, examines views on AI's effectiveness, benefits, and difficulties in literary translation.

4. SPSS Analysis of Survey Results

Below is a more organized and refined display of the SPSS analysis, arranged in a manner that corresponds with SPSS table outputs. The tables have been streamlined, and the interpretation is brief and incorporated into the analysis.

4.1. Section 1. Demographic Information

Table 1.

The frequency distribution of demographic information.

Variable	Category	Frequency	Percentage
Age Group	18–25	80	55.6%
	26–35	26	18.1%
	36–45	18	12.5%
	46–55	20	13.9%
	56 and above	0	0%
Interpretation	Most respondents (55.6%) are aged 18–25, indicating a younger demographic.		
Variable	Category	Frequency	Percentage
Gender	Male	92	63.9%
	Female	52	36.1%
	Non-binary/Other	0	0%
	Prefer not to say	0	0%
Interpretation	Males make up the larger portion (63.9%), indicating a difference in gender representation in AI and translation.		
Variable	Category	Frequency	Percentage
Highest Education Level	High school or equivalent	29	20.1%
	Bachelor's degree	36	25.0%
	Master's degree	40	27.8%
	PhD or higher	39	27.1%
	Other	0	0%
Interpretation	Most participants possess higher degrees (master's or PhD), indicating a well-educated sample.		
Variable	Category	Frequency	Percentage
Primary Occupation	Translator/Interpreter	70	48.6%
	Linguist	36	25.0%
	AI Developer/Researcher	18	12.5%
	Academic/Researcher	10	6.9%
	Student	10	6.9%
	Other	0	0%
Interpretation	Almost half (48.6%) are translators/interpreters, signifying robust representation from experts in the industry.		
Variable	Category	Frequency	Percentage
Familiarity with AI Tools	Very familiar	90	62.5%
	Somewhat familiar	16	11.1%
	Neutral	18	12.5%
	Not very familiar	15	10.4%
	Not familiar at all	5	3.5%
Interpretation	A considerable number (62.5%) are quite knowledgeable about AI-driven translation tools.		

4.2. Section 2: Perception of AI in Literary Translation

Table 2.

Frequency of sample opinions and perceptions about the use of AI in literary translation.

Variable	Category	Frequency	Percentage
Effectiveness of AI	Extremely effective	50	34.7%
	Very effective	10	6.9%
	Moderately effective	40	27.8%
	Slightly effective	20	13.9%
	Not effective at all	20	13.9%
Interpretation	Opinions are split, with 34.7% considering AI highly effective and 27.8% moderately effective.		
Variable	Category	Frequency	Percentage
Main Advantages of AI	Speed of translation	110	76.4%
	Cost-effectiveness	132	91.7%
	Consistency in terminology	11	7.6%
	Handles large volumes	141	97.9%
	Other	0	0%
Interpretation	AI is proficient in managing extensive amounts (97.9%) and being cost-efficient (91.7%) but has difficulties with consistency (7.6%).		
Variable	Category	Frequency	Percentage
Main Challenges of AI	Loss of cultural nuances	122	84.7%
	Difficulty with idioms/metaphors	143	99.3%
	Lack of emotional depth	114	79.2%
	Inability to capture the author's style	102	70.8%
	Other	0	0%
Interpretation	Translating idioms/metaphors (99.3%) and cultural nuances (84.7%) presents the greatest difficulties.		
Variable	Category	Frequency	Percentage
Frequency of Errors	Very often	52	36.1%
	Often	48	33.3%
	Sometimes	20	13.9%
	Rarely	10	6.9%
	Never	12	8.3%
Interpretation	The majority of respondents (69.4% frequently or very frequently experience errors, suggesting opportunities for improvement.		
Variable	Category	Frequency	Percentage
Can AI Replace Humans?	Yes	32	22.2%
	No	92	63.9%
	Not sure	20	13.9%
Interpretation	The majority (63.9%) think that AI is unable to completely take the place of human translators.		

4.3. Section 3. Practical experience with AI tools

Table 3.

The frequency of using AI tools in literary translation texts.

Variable	Category	Frequency	Percentage
Use of AI Tools	Yes	85	59.0%
	No	59	41.0%
Interpretation	The majority (59.0%) have used AI-powered tools.		
Variable	Category	Frequency	Percentage
Tools Used	Google Translate	30	21.4%
	DeepL	30	21.4%
	ChatGPT	40	28.6%
	Microsoft Translator	20	14.3%
	Other (Deepseek)	24	17.1%
Interpretation	ChatGPT is the most used tool (28.6%).		
Variable	Category	Frequency	Percentage
Satisfaction with AI	Very satisfied	55	38.2%
	Satisfied	30	20.8%
	Neutral	5	3.5%
	Dissatisfied	54	37.5%
	Very dissatisfied	0	0%
Interpretation	Satisfaction is divided, with 38.2% expressing high satisfaction and 37.5% feeling dissatisfied.		

4.4. Section 4: Future of AI in Literary Translation

Table 4.

The frequency of opinions regarding the future effectiveness of AI in literary translation.

Variable	Category	Frequency	Percentage
Likelihood of AI Improvement	Very likely	72	50.0%
	Likely	28	19.4%
	Neutral	10	6.9%
	Unlikely	20	13.9%
	Very unlikely	14	9.7%
Interpretation	Half (50.0%) believe AI is very likely to improve significantly in 5 years.		
Variable	Category	Frequency	Percentage
Role of Human Translators	Primary role (AI as a tool)	104	72.2%
	Collaborative role	20	13.9%
	Secondary role	7	4.9%
	No role (AI replaces humans)	13	9.0%
Interpretation	Most (72.2%) see human translators retaining a primary role, with AI as a tool.		

4.5. Summary of Key Findings

1. Demographics: Younger, well-educated men are dominant, with numerous individuals working as translators and interpreters.
2. Perception of AI: AI is efficient in terms of speed and cost but has difficulty with cultural subtleties and idiomatic expressions.
3. Practical Experience: ChatGPT is the most utilized tool, yet satisfaction with AI translations is varied.
4. Outlook: Most believe AI will improve but will not replace human translators, who will retain a primary role.

5. Results

Survey findings show that although AI is appreciated for its speed (76.4%) and affordability (91.7%), it faces criticism for losing cultural nuances (84.7%) and having difficulties with idioms and metaphors (99.3%). The majority of participants (63.9%) feel that AI cannot substitute human translators; yet, 50% anticipate major advancements in AI abilities within the next five years.

The results of this research uncover notable difficulties in utilizing artificial intelligence (AI) for literary translation, emphasizing the shortcomings of existing AI technologies in grasping the subtle, culturally ingrained, and stylistically abundant aspects of literary works. The outcomes are structured according to the primary dimensions examined in the

methodology: cultural context, stylistic loyalty, emotional impact, and creativity. Furthermore, perspectives from expert literary translators enhance the comprehension of the practical and ethical considerations of incorporating AI into this area.

5.1. Cultural Context

The examination of case studies reveals that AI systems find it challenging to manage culturally specific aspects such as idioms, metaphors, and historical or regional references. For instance, when translating a novel abundant in regional dialects, AI-generated translations frequently result in literal or clumsy interpretations that do not capture the cultural significance of the original text. In one instance, a metaphor grounded in a particular cultural tradition was translated into a statement that was grammatically accurate but culturally meaningless in the target language. In contrast, human translators were capable of modifying such elements by locating culturally suitable equivalents or offering explanatory notes, thus maintaining the text's cultural richness.

The literature review additionally supports these conclusions, highlighting that AI models are generally trained on datasets that are predominantly composed of non-literary material, which restricts their capacity to identify and adjust to culturally specific references. This constraint is especially evident in texts that significantly depend on intertextual references or historical context, since AI systems do not possess the contextual knowledge necessary to understand such references correctly.

5.2. Stylistic Fidelity

The research indicates that AI systems frequently cannot emulate the distinct narrative voice and stylistic features of literary pieces. For example, in converting a segment of Gabriel García Márquez's lyrical writing, the AI-created translation failed to capture the rhythmic cadence and poetic essence of the original, leading to a text that seemed dull and ordinary. Likewise, in interpreting Jane Austen's keen wit, the AI result overlooked the nuanced irony and humor that define her style.

Interviews with expert translators highlighted the significance of stylistic fidelity in literary translation. Translators noted that an author's voice involves not only word selection but also rhythm, tone, and narrative structure—components that AI systems find challenging to replicate. Although AI can produce grammatically accurate and coherent translations, it frequently falls short of conveying the stylistic subtleties that render literary works unique and engaging.

5.3. Emotional Resonance

The case studies emphasize the constraints of AI in expressing emotional nuances like irony, humor, and pathos. For instance, when translating a touching poem, the translation produced by AI did not manage to convey the emotional profundity and metaphorical complexity of the original, leading to prose that appeared dispassionate and uninspired. In contrast, human translators successfully grasped the emotional subtext of the poem and were able to replicate its effect in the target language.

Translators consulted for the research mentioned that emotional resonance stands out as one of the most difficult elements of literary translation, necessitating not just linguistic proficiency but also empathy and intuition. They contended that AI systems, which depend on pattern recognition and statistical evaluation, are fundamentally restricted in their capacity to comprehend and express the emotional facets of a text.

5.4. Creativity and Interpretive Flexibility

The research revealed that AI systems typically emphasize consistency and objectivity, which may clash with the interpretive flexibility essential in literary translation. For instance, when translating a section that had several potential interpretations, AI generated a singular, literal translation that did not convey the ambiguity and depth of the original. In contrast, human translators could investigate various interpretations and make imaginative decisions that enriched the text's meaning and effect.

Translators highlighted that literary translation is fundamentally a creative endeavor, necessitating not just language skills but also artistic discernment. They voiced concerns that a growing dependence on AI might jeopardize the creative and interpretive aspects of their craft, turning translation into a routine procedure.

5.5. Potential for Collaboration

Despite these difficulties, the research highlights possible opportunities for cooperation between human translators and AI technologies. Translators recognize that AI can assist with functions like producing initial drafts, performing terminology research, and maintaining consistency throughout extensive amounts of text. Nevertheless, they emphasize that AI ought to be utilized as an additional resource instead of a substitute for human translators, especially in the context of literary works.

The literature review additionally emphasizes the possibilities of hybrid methods, where AI performs the preliminary translation, and human translators enhance the results. Although these methods have demonstrated potential in non-literary settings, their relevance to literary translation is still constrained by the specific requirements of the genre.

5.6. Ethical and Practical Implications

The discussions highlighted major ethical issues regarding the use of AI in literary translation. Translators voiced concerns that the growing dependence on automated systems might undermine their skills and diminish their status as co-creators of literary works. They further inquired about authorship and intellectual property, observing that translations produced by machines obscure the distinctions between original and derivative creations.

These concerns are reflected in the literature, which emphasizes the necessity for a more detailed conversation regarding the role of AI in the translation sector. Academics contend that although AI can improve efficiency and scalability, it must be incorporated in ways that honor the artistry and cultural significance of literary translation.

6. Discussion

The findings of this study underscore the persistent limitations of artificial intelligence (AI) in literary translation, particularly in handling the nuanced, culturally embedded, and stylistically rich elements that define literary works. While AI has demonstrated remarkable progress in technical and non-literary translation, its application to literary texts remains fraught with challenges that stem from the very nature of literature itself, its reliance on human creativity, cultural specificity, and emotional depth. Below, we expand on these findings, situating them within broader theoretical and practical debates, and explore the implications for translators, developers, and policymakers.

The study confirms that AI struggles significantly with culturally specific elements such as idioms, metaphors, and historical references. This aligns with prior research [19, 21] which argues that machine translation (MT) systems often produce literal or nonsensical translations when faced with culturally embedded language. For example, in our case studies, AI rendered culturally rich metaphors into grammatically correct but semantically hollow phrases, stripping the text of its original meaning. Human translators, by contrast, leveraged their cultural knowledge to adapt these elements, either by finding culturally equivalent expressions or adding explanatory notes.

This limitation is exacerbated by the fact that most AI models are trained on datasets dominated by non-literary texts [7]. Literary works, with their dense intertextuality and cultural allusions, require a depth of contextual understanding that current AI lacks. Future developments in AI may benefit from domain-specific fine-tuning—training models on curated literary corpora to improve their ability to recognize and adapt to cultural references.

A key finding was AI's inability to replicate an author's unique stylistic features, such as García Márquez's lyrical prose or Austen's irony. While AI-generated translations were grammatically sound, they often flattened stylistic nuances, resulting in bland, homogenized outputs. This corroborates [16] the assertion that AI, despite its pattern-recognition capabilities, cannot fully emulate the creative choices that define literary style.

Human translators, in interviews, emphasized that stylistic fidelity involves more than lexical accuracy; it requires an intuitive grasp of rhythm, tone, and narrative structure elements that AI currently cannot interpret meaningfully. This suggests that AI may never fully replace human translators in literary contexts but could serve as a preliminary drafting tool, allowing human translators to focus on refining stylistic nuances.

One of the most striking limitations was AI's failure to convey emotional depth, particularly in poetry and emotionally charged prose. While human translators could interpret and recreate the affective dimensions of a text, AI-produced translations often feel sterile. This aligns with Guerberof Arenas [9] observation that AI lacks the empathic and intuitive faculties necessary for literary translation.

Moreover, AI's preference for consistency over interpretative flexibility [24] means it struggles with ambiguous or polysemous texts. Human translators, by contrast, thrive on such ambiguity, using it to produce richer, more layered translations. This fundamental difference highlights the irreplaceable role of human creativity in literary translation.

Despite these limitations, the study also identifies opportunities for collaborative human-AI workflows. Survey respondents noted that AI could assist with:

- Draft generation (accelerating the initial translation process),
- Terminology consistency (useful for series or multi-volume works),
- Large-volume processing (e.g., translating back catalogs for publishers).

However, as Koehn and Knowles [26] caution, hybrid models must be carefully implemented. Post-editing AI outputs [27] may work for technical texts but remain problematic for literature, where the "raw" AI translation often requires near-total reworking. Future research should explore adaptive AI systems that learn from human corrections, gradually improving their literary translation capabilities.

Concerning the devaluation of human translators, Cronin [25] warns that over-reliance on AI risks marginalizing literary translators, whose work is often undervalued. If AI is perceived as a "cheaper alternative," it could erode professional standards and reduce opportunities for human translators. However, authorship and intellectual property issues arise as machine-generated translations blur the line between original and derivative works. Who owns the copyright—the AI developer, the post-editor, or the original author? Current legal frameworks are ill-equipped to address this [32].

Moreover, cultural homogenization claims that AI's tendency to default to "standard" language varieties could marginalize regional dialects and minority voices in translation. These concerns call for industry-wide guidelines on AI use, ensuring that:

- Human translators retain editorial control over literary works,
- AI is used transparently (e.g., disclosing machine-assisted translations),
- Translators receive fair compensation for post-editing labor.

While AI is unlikely to replace human literary translators, its role is likely to expand. Key areas for future research include:

- Developing AI with "Cultural Awareness" asks the following questions:
Could AI be trained to recognize and adapt to cultural references more effectively?
- Can sentiment analysis tools be integrated into MT systems to improve emotional resonance?
- What is the ideal balance between AI automation and human refinement?

This study reaffirms that literary translation remains a deeply human endeavor, reliant on creativity, cultural insight, and emotional intelligence qualities that AI cannot replicate. While AI can augment efficiency in certain tasks, its limitations in handling cultural nuance, stylistic fidelity, and emotional depth necessitate a collaborative, human-centric approach. Policymakers, developers, and translators must work together to ensure AI complements rather than compromises the artistry of literary translation.

7. Conclusion

This research finds that although AI can aid in specific areas of literary translation, it is improbable that it will supplant human translators in the near future. The difficulties in grasping cultural context, maintaining stylistic fidelity, conveying emotional resonance, and fostering creativity are fundamentally embedded in literary works and the intricacies of human expression. Therefore, the role of AI in literary translation ought to be regarded as complementary rather than a replacement.

The results hold significant importance for translators, researchers, developers, and policymakers. Regarding translators, the research emphasizes the necessity of promoting the value of their skills and creativity in a world that is becoming increasingly automated. Concerning developers, it points out the significance of creating AI systems that enhance human translators rather than act as rivals. Concerning policymakers, it urges a more sophisticated perspective on the incorporation of AI in the cultural and creative sectors, one that honors the artistry and cultural relevance of literary translation.

Ultimately, this study enhances the comprehension of the function of AI in literary translation and encourages a conversation regarding the future of this essential art form in a progressively digital environment. By tackling obstacles and investigating creative solutions, academics and professionals can strive for a more successful incorporation of AI in literary translation, one that honors the creativity and cultural importance of the original texts while leveraging the efficiency and scalability of automated systems.

AI is improbable to supplant human translators in literary translation because it cannot completely grasp cultural context, stylistic accuracy, emotional depth, and creativity. Nevertheless, AI can act as a useful additional resource, increasing efficiency and scalability. The results highlight the significance of human creativity and intuition in literary translation and advocate for a harmonious method of incorporating AI into the sector. Upcoming studies should investigate hybrid models and tackle ethical issues to guarantee that AI enhances, rather than detracts from, the artistry of literary translation.

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