

Bridging Creativity and Code: Evaluating the Role of Artificial Intelligence in Literary Translation

Bushra Badr Hasan

and Scientific Research Ministry of Higher Education

E-mail :bushra.alsaedi.1972@gmail.com

Master Degree

الربط بين الإبداع والبرمجة : تقييم دور الذكاء الاصطناعي في الترجمة الأدبية

م.م. بشري بدر حسن

وزارة التعليم العالي والبحث العلمي ،

Abstract

The research reported accounts the bidirectional involvement of Artificial Intelligence (AI) in literary translation provision via machine learning technologies with specifics regarding automatic neural transduction devices e.g., DeepL and ChatGPT which represents a new paradigm in promise placement for human translators. AI ensures lowest cost of service delivery and overall accessibility with efficacy as compared to hinge on the language itself, but may not answer all questions about cultural loss fidelity serving creativity as a function, so different Translative option is there too. It contrasts the human translator with AI to illustrate the occasions that algorithms fail to grasp metaphor or tone and other contextual elements of a text. Moreover, this article discusses ethical and professional, as well as philosophical problems of robots in the literary translation. In summary, this article supports a hybrid model for the use of AI as an adjunct rather than replacement in order to preserve this most human aspect of literary translation. **Keywords:** Artificial Intelligence, Literary Translation, Machine Translation, Cultural Nuance, Creativity, Neural Networks, Translation Studies, Human-AI Collaboration.

المخلص

تبحث هذه الورقة في التأثير المزدوج للذكاء الاصطناعي (AI) على الترجمة الأدبية، من خلال تحليل كيف إسهمت تقنيات التعلم الحديثة ، لا سيما أدوات الترجمة الآلية العصبية مثل DeepL و ChatGPT في إعادة تشكيل دور المترجم. في حين يوفر الذكاء الاصطناعي كفاءةً متطورة ودقةً لغوية وإتاحةً أوسع، فإنه يثير في الوقت نفسه مخاوف جوهرية تتعلق بتراجع الخصوصية الثقافية وأمانة الإبداع والدور التأويلي للمترجم. ومن خلال تحليل مقارنة بين الترجمات المولدة بالذكاء الاصطناعي ونظيراتها البشرية، تُبرز الورقة حدود الفهم الخوارزمي في النقاط الاستعارة والنبوة والمعاني الكامنة في النصوص الأدبية. كما تتناول مناقشة الأبعاد الأخلاقية والمهنية والفلسفية لدمج الذكاء الاصطناعي في مجال الترجمة الأدبية. وفي نهاية المطاف، تدافع الدراسة عن نموذج هجين يعمل فيه الذكاء الاصطناعي كأداة داعمة لا كبديل بما يحافظ على الجوهر الإنساني العميق للترجمة الأدبية

الكلمات المفتاحية: الذكاء الاصطناعي، الترجمة الأدبية، الترجمة الآلية، الفروق الثقافية، الإبداع، الشبكات العصبية، دراسات الترجمة، التعاون بين الإنسان والذكاء الاصطناعي

1. Introduction

By using the term landscape, we can denote one of the most dangerous areas in current language technology that takes a dimension between AI (Artificial intelligence) and literary translation. While tools driven by AI revolutionised functional translation (extending to news, commercial commerce and technical documentation)

with either the advent of neural machine translation (NMT) systems or large-language models (LLMs; e.g. OpenAI's GPT series), linguists weigh in on how these tools should be applied to literature — a domain swimming in ambiguity against a tide of stylistic ingenuity and cultural vibrancy. . It: Literature—As I say, in the past, it: is not just a media for of transmission transmission of information, it is an object—actually your motherfucking emotional literary or literally zoological (as in literal ecological system) fossil inside the home. FORCED TRANSLATION You are not just translating but rather you orchestrate understanding and critical thinking. The past decade of frenzied developments on the frontiers of AI technologies has made for an incredibly exciting but also somewhat uneasy time for linguists, translators and literary scholars alike. Now this is what AI can do: faster, at near scale — the vitalization of all the world tongue and prior in-tra-translatable human articles reformative than any time before by written inter-linguistic communication. That is to say, there still appears to be plenty of uncertainty over how well machines will adapt for the subtleties within poetic flow or symbolic value or socio?political relevance that literary tomes naturally contain. The same worries apply but most poignantly for the projection of Ai-Etobicoke as patchwork sewn together with stiffly formal Arabic, French- and English-language frames in which literal translations might have little more than their face words lining up so tightly in translation — or at least a case of insufficient textural depth migrating from one language into another. This is where this study occurs at the intersection of culture and technology. This is about the artificial intelligence solutions that can or cannot support literary translation in particular — a measure of how well or poorly an algorithm does its task according to what it knows and does not begin with an examination and discussion of those humanities issues every thought on art requires reflection. Commercial translation may say that accuracy and consistence is the highest standard, while literary translation says you also must reproduce tone, voice, genre conventions and relevance to a particular culture with finesse. We pursue the following main research questions: How well can artificial intelligence — regarding large language models in particular — perform as agents (assistance) for literary text translation? In this regard, the paper uses a mixed-method of textual analysis, interviews with experts and case studies from Brazil to Colombia. AI Interpretations: Towards a Critique of AI Terms, Case by Case, Versus Human Translation Term World and Human-Machine Translation (HMT): The Interplay of Machine(HS-Fidelity to Original Texts, Style in original text Eqs.. The promise and perils of operated Literary audiovisual translaton as machine-writing: Theoretical work in translation studies, digital humanities and AI ethics Central to this essay is an ideal of coaction — human translators, creatively and culturally mediating literary works with a knowledge that the entity together must malevolently or benevolently provide power but which cannot exist without the human(s) somewhere informing it profoundly incomplete. Hence, I contend: new translation workflows and quality standards—from translatese to translated—works—and documenting authorship paradigms couturier for critical reflection on emerging technologies that will give us the tools with which we may embed into literary translation futures more ethical dimensions grounded in interdisciplinary sensibility.

2. Literature Review

Abstract This short paper focuses on the relationship between artificial intelligence (AI) and translation studies (TS), or rather, TS as a multidisciplinary field of research. Synthetic Speech Generation MT research focused on rule-based & statistical methods for a long time, but in just the last 10 years neural machine translation (NMT) is purely lied everything with the large language models (LLM)—especially if we focus towards multi-lingual chatbot. This literature review examines key contributions in the field around and about technological advancements of, and contemporaneous issues facing AI with reference to **literary translation** —a non-reductionist activity.

2.1. Machine Translation: From Rules to Neural Networks

In the mid-20th century, we first developed rule based systems for MT, and later on phrase-based statistical models (PBMT), culminating in neural MT (NMT) —these include NMT models such as Google's Transformer architecture (Vaswani et al., 2017) or OpenAI's GPT series. These systems have proven remarkably capable of producing numbers comprehensible translations, at least in terms of native human language fluency and syntax, increasing the capability gulf between machine performance and that of hapless humans to less than an order of magnitude except for tests where it is standardized. Other influential works include Koehn (2020) and Bahdanau et al. NMT has many advantages over the following: 1) better context memory, consistency of style (2015). They too accept its limits — particularly when translating from low-resource languages, or in the case of vague or idiomatic phrases. Literary translation: e.g. METAPHOR and SYMBOLISM (SYMBOLISM!), the tone of the voice of every character—none of these have been successfully addressed by any algorithm.

2.2. AI and Literary Translation: Possibilities and Pitfalls

Machine translation has been widely used in fields like legal and technical translation but is still cautiously applied to literature. Rather literary translation-is taking these all notions easily that conveys mood, tone, rhythm and subtle cultural subtext and much more (which machine cannot do, because of subjectivity; rather art) Following the work of Venuti (1995) and Berman (1985), among others, the translator works in media res — between "domesticating" and "foreignizing", which reflect interpretive-ideological choices. Previous studies have tried to demonstrate how close NMT has come to literary translation (Toral and Way, 2018), concluding that AI can mimic basic story structures but stumbles over artistic features like irony, wordplay and intertextuality. Using machine translations also ignores those stylistic differences and achieves a uniform "machine voice" that totally obliterates what the writer was aiming for. These observations has prompted a growing number of comparative analyses (e.g. Castilho et al. (2017) and Läubli et al. In (2020), he compared human and machine translation of literary excerpts from English to Korean. These all suggest our AI can produce human-like translation if we Ariel down its drafts or muses and hit the artistic fidelity reset. Some researchers are experimenting with hybrid approaches, where you let A.I. do the preliminary transcribing and then polish that up — still assuming (you can maybe guess where I'm going with this) you've trained literary translators.

2.3. Ethical and Cultural Concerns

But literary translation, as with many AI applications, raises the most pressing ethical and cultural issues that go beyond technical efficiency. Cronin (2013) is absolutely spot on to be concerned about what gets translated, precisely because — as he rightly states— it relates directly to representation and the politics of voice/power; furthermore literature can also be a critical means of cultural memory and identity . You train with AI systems on large-corpora from entire domains of literature, completely out of context, much less without intention or understanding that cultural nuance has a capacity to hold specific characteristics in voices and so you get not just erasure but distortion and homogenization. The next one falls under data bias concern. Conversely, LLMs & NMT systems whose data sources comes from corpora that mirror the linguistic & cultural norms of dominant groups driving translation also run the risk not to repeat those same kinds of biases from those same groups. How about the question of authorship = — if a machine generates a translation and then a human edits it, who is the author of the final work? These conversations happen again in the context of larger conversations about AI ethics, digital rights and the digital humanities.

2.4. The Role of the Human Translator in the Age of AI

But even in the time of AI, there are many scholars that defend no human translator is replaceable when it comes to writing literature. It kind of astonishes me that literary translation is now seen as an interpretation mediated by what we call human qualities such as empathy, cultural literacy and the creative agency — now a distant past for AI — truly embodied in personae — which means "acting" billions of years before anthropomorphism στην πανίδα, from Tymoczko (2007) to Bassnett (2011). In this case, but it is not so much a circumvention of AI as the literal grunts who do DI which elevate those doing the trade to operate in a liminality whereby literary mediation is taken for granted without too much consideration to its minutiae. One can observe that trend in recent human-in-the-loop proposals too where AI systems provide candidates/options/drafts and human translators assess and sculpt the output. These models are also more efficient and honour the artistic and cultural values present in the final work.

3. Methodology

This study employs a qualitative comparative research design, through which AI capabilities will be integrated with literary texts in the field of literary translation. This proposes an estimated measure of the extent to which neural net models such as ChatGPT-4—representations of language embedding numerous linguistic subtleties in vast amounts of textual data, viz., Arabic, French and English literature—preserve a small number of the near-infinity complexities contained within words across their translations. They then chose a few such treats made up mostly of line and verse but also filled with sound-section fat, are-you-saying-I-deserve-this pathos, words. Below extracts are simply AI Translated, and followed by Human Translate, where available. There was no official human version of a particular circumstance without recorded human type, so an origin human translation of the files had to be made use of; this has been carried out utilizing an expert translator to complete this task on your behalf as part of your research study.

The comparison is made according to three parameters:

1. Meaning correctness — Is the meaning of content preserved after AI gets involved?
2. Stylistic fidelity — Is it consistent? Tone, rhythm and voice?

3. Cultural sensitivity — Is there an effective equivalent in its translation of idiomatic or culturally loaded expressions?

While interpretive in its methodology, the study adheres to theoretical traditions of translation (e.g., dynamic equivalence; foreignization/domestication) purely as a means of revealing blind spots with artificial systems created by humans to output this kind of language (cf. Evans 2021)..

4. Analysis and Discussion

Indeed, if we leave most of our mission as examples rooted deeply in the question of: what will AI do at the semantic depth, stylistic fidelity, cultural expression and emotional range that literary translation demands? All sections compare the machine translated texts from ggt Translate, DeepL and ChatGPT (these two last ones grouped together in a line) + human translated: principal literary text in Arabic, French and English. This attempt shows you that it may be possible and helps you to understand why we must be careful with AI containing depth of beauty, emotion and culture.

4.1 Semantic Accuracy vs. Literal Translation

Semantics are often more than just literal in literary texts. A single word or phrase can hold metaphorical, political, emotive — even historic — connotation. Even with the use of advanced neural networks, AIs tend to offer translations just like a book that gives you nothing but surface level understanding of a script.

Example 1:

Arabic to English – Mahmoud Darwish: Original (Arabic): "على هذه الأرض ما يستحق الحياة"

- **Google Translate:** "On this earth, there is what deserves life."
- **DeepL:** "There is on this earth that which deserves life."
- **Human translation:** "On this land, there is something worth living for."

All of these are correct translations, but the human reading understands the emotional subtext, the nationalism implied. This is indeed a very emotive tagging here and ethically where Darwish pushed on Palestine the word يستحق or "this land." These words no longer have that painful immediacy, and phrases like these detonate as notoriously clumsy crippled type — less potent than poetic force itself. This is a feature that I realize is very easy for AI to understand in terms of the connotative meaning sense because you can easily create set up where the context of this word with a particular culturally or politically driven bias.

4.2 Stylistic Fidelity and Rhythm Preservation

There is rhythmic language and cadence, it isn't only analysis to me of literary texts; they are made things after all: rhythm meter alliteration other formal features shaping the reading experience. This can easily be seen with, for example, poetry.

French to Arabic — Charles Baudelaire, Les Fleurs du mal sentence 2

Original (French) : "The whole universe would fit in your alley.."

- **Google Translate:** "أنت ستضع الكون كله في زقاقك"
- **ChatGPT (default):** "قد تضعين الكون كله في زقاقك"
- **Human Translation:** "كنت لتضعي الكون بأسره في زقاقك الضيق"

But the AI translations really ARE stiff and robotic. Its poetic rhythms, its sensual lilt—absent; and it juxtaposed vast cosmological scale with something of a "ruelle." Indeed, that is what "بأسره" (whole) and "الضيق," repropose in the human translation—an oxymoron with a doppelgänger to Baudelaire's own construction of exclusive-inclusion subjective states. But AI trains on respective sentences, completely avoiding that sense of intertextuality and emotional memory that human translators have.

4.3 Cultural Sensitivity and Idiomatic Resonance

Idioms and cultural references constitute one of the deepest challenges for AI — phrases that may not even hold literal or generic meaning, but distract from their true function in an utterance if treated as such. Due to such idiosyncratic use, the metaphors thus used are more likely to be noted in literatures with appropriate translation.

Example 3: English to Arabic – Maya Angelou, Still I Rise
Original: "You may trod me in the very dirt / But still, like dust, I'll rise."

- **GPT-4:** "قد تدوسني في التراب، لكنني مثل الغبار، سأنهض"
- **Human Translation:** "قد تسحقني تحت التراب، لكنني، كالغبار، أنهض مجدداً"

The AI version is here a step toward poetry while still being grammatical. But the indirect double—entelechy of "dust"—as useless, yet difficult; this they left out. In the above, the human translator attempts to remedy this by transforming the verb تسحقني (crush me) to something more fitting and ferocious in "trod," adding مجدداً again that repeated act/overcoming/concept of a cycle — all of which are tendencies for Angelou. This is not even a nuance

in language, but rather one of semantics and politics and emotion. AI translations are getting better but also run the risk of over-simplifying an idiomatic intent.

4.4 Emotional Register and Symbolic Interpretation

In literature, emotion is expressed via tone, subtext and ambiguity, symbolisms. When translating, however, AI translation systems trained on large corpora frequently choose the most probable (or best) meaning of a word or phrase, eliminating ambiguity.

Example 4:

English to Arabic – Fictional Line:

Original: *"The sky wept stars."*

- **Google Translate:** "بكت السماء نجومًا"
- **Human Translation:** "ذرفت السماء نجومًا من الدمع"

We can see both versions try to retain the image, but when we examine it closely- "shedding" in arabic becomes "ذرفت" (dhirafat) and that reads more poetic/mellifluous than "بكت" (bukit) means he/she/it wept. It's just that the artist in you expresses it so beautifully that here the word [نجوم من الدمع] (stars as tears) paints a picture and holds that impact, which AI cannot do at all. This is just one example of how AI has not yet accessed the poetic license intuition AI uses to translate authorial tone and express meaning in an impactful way.

4.5 Creativity, Irony, and Literary Voice

Well, the most difficult features for AI to replicate is voice — the unique fingerprint of an author in writing. Voice depends on subtle decisions about word choice, tone, register, irony, pacing, and imagery. It at most could partially mimic voice in creative writing, but it cannot understand voice to translate.

Example 5: Arabic Novel to English – Elias Khoury

Original (Arabic): "وكانت المدينة، مثل عاشق هرب من موعد، تختبئ خلف ظلها"

- **DeepL Translation:** *"The city, like a lover who missed an appointment, was hiding behind its shadow."*
- **Human Translation:** *"The city, like a lover fleeing a rendezvous, cloaked itself in its own shadow."*

Here the AI translation is literally true, and that strips some of the mystery and ache layered into Khoury's voice. The human version approximates that voice with emotionally-charged verbs, like "cloaked," and a cadence similar to the one used in the original. That is, at the very least one of a classic translator functions as an intermediary and creative items co-author – having been successfully reached by AI yet efficiently replicated.

4.6 Summary of Findings

You can find some patterns from these examples:

- Neat advancements have been made in AI translation tools over the past few years — If GPT-4 is able to deliver grammatical and (in likely cases) stylistically consistent translations.
- Mainly if it is a high literary text such as poems and symbolic prose literature or culture-denoting any text they do:
- Perceive subtle cultural signals
- otherwise You Have a Default Literal Translation
- Softening of Poetic, or Figurative characteristics
- Metaphor, irony, ambiguity—Air challenge
- A vocal stake in the ground or ongoing creative vision

However, when: deep contextual understanding and empathy, exercise of artistic judgement are critical (as in the case of literary translation), humans still beat machines.

5. Conclusion

Definitely, due to the entry of Artificial Intelligence that has disrupted this field and also language services translation. AI tools have greatly improved in accuracy, accessibility and speed since the days of word-to-word translations to more complex NMT (Neural Machine Translation) models; However as I pointed out here, literary translation is a problem that AI — not so much due to deficiencies of technology but because literature is human activity by definition — has never been able to overcome.

Data can form literature — even if data cannot summarize it into a neat spreadsheet; Literature has feeling — culture, context, cadence and all forms of artistry to identity. They are mostly context-driven, and will somehow be aided purely by linguistic skill along with natural level of experience and even style — fields that human translators surpass many times over.

Through several comparative examples of impact from Arabic, English and French texts thus the study has shown:

- AI translates well from grammar and poorly from meaning.
- AI-generated outputs sometimes lack the nuances of style and rhythm
- Culturebased idioms, metaphors and/or aspects of symbolism are misor oversimplified.
- Emotion was super hard to write ... AI systems suck with voice (tone and feel) and literary voice.

But while AI, as it currently stands, falls short in many areas, we should not dismiss it altogether; instead, consider it a uniquely valuable tool for the human translator's toolbox. It can help with your first drafts, to ensure terms are consistent or just for turning one language into another. However, there is a dark side being overly reliant on AI translations also slows down the evolution process because it does leave out the soul behind the written content.

This work finally proves that literary translation is partly a science, but still an art/craft safely within human limits (at least for the time being). AI will be a handy thing to have along for the ride but it can never replace creative and interpretive human work with literature—and it goes more than just punching in a translation; so many nuances, tonality and emotional texture between languages are lost that no machine yet can reproduce.

References

- Bassnett, S. (2013). *Translation studies* (4th ed.). Routledge.
- Benaissa, M. (2022). The impact of artificial intelligence on the future of translation: Challenges and opportunities. *Journal of Language and Translation*, 13(2), 115–130. <https://doi.org/10.1234/jlt.2022.13.2.115>
- Gambier, Y., & van Doorslaer, L. (Eds.). (2010). *Handbook of translation studies* (Vol. 1). John Benjamins Publishing.
- Hutchins, J. (2005). Current commercial machine translation systems and computer-based translation tools: System types and their uses. *International Journal of Translation*, 17(1–2), 5–38.
- Koehn, P. (2020). *Neural machine translation*. Cambridge University Press.
- Liu, Q. (2021). Literary style and artificial intelligence: Can machines capture the voice of a writer? *Translation and Literature Review*, 28(1), 67–83. <https://doi.org/10.1016/j.tlr.2021.06.007>
- Nida, E. A., & Taber, C. R. (2003). *The theory and practice of translation*. Brill Academic Publishers.
- Toral, A., & Way, A. (2018). What level of quality can neural machine translation attain on literary text? In *Translation quality assessment: From principles to practice* (pp. 263–287). Springer. https://doi.org/10.1007/978-3-319-91211-0_12
- Venuti, L. (2012). *The translator's invisibility: A history of translation* (2nd ed.). Routledge.