Between Man and Machine: A Qualitative Case Study of Four Nineteenth-Century Novels in English–Arabic Literary Translation

د/ شيماء أحمد السيد العتيق(*)

Abstract: Literary translation has traditionally been regarded as a uniquely human craft. The advent of technological innovations in the nineteenth and twentieth centuries, however, has significantly altered this landscape. The rise of Machine Translation (MT), Translation Memory (TM), and Artificial Intelligence (AI) has shifted translation practices toward more mechanical and automated processes. This study evaluates the reliability of machine translation compared to human translation in the context of English-to-Arabic literary translation. Four classic novels—*Pride and Prejudice*, *Dracula*, *Frankenstein*, and *Alice's Adventures in Wonderland*—were selected for comparative analysis using both MT/AI tools and human translators. Findings reveal that while MT and AI systems can generate acceptable translations in certain straightforward contexts, they frequently fail to convey the subtlety, literary style, and poetic qualities intrinsic to the original works. These shortcomings are particularly evident in the translation of nuanced language, tone, and cultural references. The study underscores the current limitations of MT technologies in faithfully rendering the artistic and aesthetic dimensions of literature. It concludes that, although MT and AI can serve as useful aids, human translators remain indispensable for preserving the literary integrity and creative essence of translated works.

Keywords: Literary Translation; Machine Translation (MT); Artificial Intelligence (AI); Translation Memory (TM).

(*) أستاذ مشارك بقسم اللغة الإنجليزية كلية اللغات والترجمة– جامعة الإمام محمد بن سعود الإسلامية

1. Introduction

Translation plays a crucial role in disseminating knowledge. As Susan Bassnett (2014) notes, it transcends mere language replication; it involves navigating cultural and social contexts. She states, "translation is now rightly seen as a process of negotiation between texts and between cultures, a process during which all kinds of transactions take place mediated by the figure of the translator" (Bassnett 2014: 6). Lotman et al. (1978) echo this, emphasizing, "no language can exist unless it is steeped in the context of culture" (Lotman *et al* 1978: 212). This synergy is evident in artifacts that have shaped our understanding of lost eras, allowing literature to engage with historical issues creatively. The Rosetta Stone exemplifies this importance. It features a single text in three scripts: Ancient Greek, Demotic, and Hieroglyphic. Jacques Joseph Champollion-Figeac's translation of the Greek text unlocked the mysteries of Egyptian hieroglyphics, birthing Egyptology—the study of Egyptian culture and language. This discipline illustrates that deciphering a language requires understanding its culture (Parkinson 1999: 41). Bassnett (2014) adds that translation influences "attitudes to the role of the written text" during the Reformation (2014: 56).

This paper focuses on Nineteenth-century English literature, particularly novels from Great Britain and Ireland, amidst a backdrop of social, economic, and political upheaval. This era, marked by wars and revolutions, produced literature that ed significant changes—industrialization, the scientific revolution, and the women's rights movement (Austen, 1813; Shelley, 1818). Novels such as David Copperfield (1850) by Charles Dickens and Jane Eyre (1847) by Charlotte Brontë explore themes of social class inequality and patriarchy. Translation thus serves as a vital means of connecting history and memory (Malena 2016: 1). Translating these literary works presents challenges, as they reflect context-specific dialects and cultural references unfamiliar to modern readers. Yet, "literary translation can contribute to the democratization of knowledge transfer" (Washbourne 2019: 5). Translators must navigate not only linguistic nuances but cultural intricacies, acting as cultural intermediaries (Roig-Sanz and Meylaerts 2018: 3). Their task is to recreate and reframe the original tone while making texts accessible to contemporary audiences. As André Lefevere argues, translations aim to influence modern literature (Lefevere 2003: 6).

The proliferation of digital and AI-driven translation tools has transformed translators' access to resources and raised questions about their reliability and impact. This paper examines the accuracy of machine and AI translations of excerpts from four culturally significant nineteenth-century novels—*Pride and Prejudice*, *Frankenstein*, *Alice's Adventures in Wonderland*, and *Dracula*. Using Google Translate, DeepL, and ChatGPT to translate from English to Arabic, the study critically evaluates the quality of these machine-generated translations.

2. General background

2.1 Objectives and Questions

This paper aims to scrutinize the reliability of machine translations (MT) produced by AI and translation machines in literary contexts. We will explore the insights of scholars (Bassnett, 2011, 2014; Lefevere, 2003; Landers, 2001; Youdale, 2020, 2024; Chan, 2015, 2018) who have investigated the intersection of translation and technology. Evaluating

the literary translator's role is crucial to understanding how efficiency can be achieved without compromising quality. This leads us to essential questions: (1) How can literary translators enhance the efficiency and practicality of their work? (2) What are the key differences and similarities between human translations and those produced by three technological tools?

These inquiries must consider various facets of the translator's profession. Translating a book requires awareness of the target audience, the author's unique style, and the critical decisions involved in shifting a text from one language to another. The of this paper is to analyze translations of fictional works from English into Arabic. This analysis will illuminate how translation technologies, particularly machine translation and AI systems, can support human translators in these literary endeavors.

2.2 Theoretical framework

In the upcoming sections, one shall unveil the theoretical foundations that underpin translation. Moreover, one will delve into the intricate relationship between translation theory and the myriad technological tools that aid this noble craft. The focus will be on literary texts, those exquisite works that demand both finesse and precision. These tools serve not merely as assistants but as vital companions in the translation journey. Together, they enrich our understanding and enhance the art of bringing words from one language to another.

2.2.1 Literary translation

The role of the literary translator is crucial. They render works accessible to those who do not speak the original language. Literary translation involves more than accuracy; it encompasses elements of narrativity, such as temporality and relationality, to reshape texts for specific audiences (Baker 2020: 104). Bassnett underscores this, asserting that literary translation entails authorship and decision-making, involving the translator in rewriting (Bassnett 2011: 45). A successful translation goes beyond mere structure; it demands thoughtful word choice, style, and an understanding of the author’s intent, alongside an understanding of the target audience. Hadley *et al.* (2022) define literary translation as the transfer of creatively produced texts between languages (Hadley *et al.*, 2022, p. 6). Such translations hinge on poetics and aesthetics.

Translators play a vital role in bridging linguistic and cultural gaps, preserving meaning and tone while navigating cultural nuances (Mowafy 2023:165). Literary translation connects diverse cultures and facilitates language learning and access to foreign texts (Munday 2016: 8). Effective translation goes beyond word-for-word conversion, requiring attention to syntax, semantics, stylistics, and cultural context (Bassnett 2011: xiii). The twentieth century saw translation become increasingly technological, with “all translation nowadays... computer-aided” and “professional translation... technological” (Chan 2015: 44, 45). While digital tools have made translation faster and more accessible, they serve to support rather than replace the translator. This discussion examines how specialized software assists or substitutes the translator’s work.

The literary translator plays a vital role in Arabic, where challenges like Quranic resonance and diglossia complicate the translation process. Translators may adopt "Quranic structures as a strategy in translating excerpts from Charlotte Bronte's *Jane Eyre*" to capture "structural intertextuality" from classical literary texts (Aljadid & Allawzi 2024: 451). For instance, Austen's irony in *Pride and Prejudice* is hard to convey in Arabic due to structural limitations. Machine translation tools often default to standard and classic Arabic, losing dialectal nuances and stylistic features—such as rendering "*must be in want of a wife*" in a flat, formal register. Quranic rhythms and rhetorical devices like negation with impossibility, expressions of causality or emphasis, and parallelism are also lost in machine outputs. For example, Shelley's Gothic prose in *Frankenstein* is translated literally by MT tools, missing opportunities for Arabic rhetorical richness. In contrast, human translators can use devices like التورية (double entendre) and الطباق (antithesis) to foreclose "potential valences or layers of meaning in the narrative" (Mowafy 2023: 157).

2.3 Use of technological tools in literary translation

Translators have access to a wide range of resources to aid their work. However, machine translation (MT) systems and artificial intelligence (AI) tools are less popular among literary translators compared to their use in technical fields. Given the demand for faster results without sacrificing quality, literary translators should consider these technologies as supportive tools. Machine translation (MT) refers to the automaticrapid translation from one language to another using specialized software. Almahasees (2022: 1) defines MT as "the process of using computers to provide translation from one language to another via monolingual/bilingual dictionaries, corpus-based and neural networks". Notable examples include Google Translate and DeepL. Tekwa (2023) states, "The main goal of MT system developers has been to produce fully automatic high-quality translations" (2023: 14). While machine translation (MT) has limitations, recognizing these flaws can enhance our understanding of human translation skills.

Translation memory (TM) is a vital tool for translators, utilizing databases to store and reuse human-made translations. It helps produce multilingual glossaries and can suggest previously translated sentences when encountered again (Dolmaya 2024: 38). Hutchins (2003) notes that the term, "computer-aided translation (CAT)", is used to "cover all computer-based translation systems" (2003: 502). Unlike machine translation (MT), Translation memory (TM) supports the translator throughout the process, while MT presents a challenge by offering automatic translations. MT has faced criticism for its limitations in semantic, syntactic, and pragmatic aspects. Bassnett (2011) expressed concerns about the literal translations of older software, stating, "Languages are in a constant state of movement...early computer programs missed whole dimensions of language use" (2011: 13). Recent advancements have improved translation platforms, making them more efficient. While earlier issues of literal translation have been diminished, machine translation (MT) still struggles with literary texts. Inderjeet Mani (2014: 500) notes that "translations which preserve the information content of the source language...in a natural form in the target language" remain a challenge. With the use of digital translation tools, translation "can be generated instantly, even without the user's knowledge of the source language" (Endriga and Rosario 2024: 84).

Recent studies show that large language models (LLMs) like GPT-4, Gemini, and open-source models are transforming machine translation, achieving fluency and stylistic nuance comparable to or surpassing traditional NMT systems (Hendy *et al*., 2023; Jiao *et al*., 2023; Bawden and Yvon, 2023). However, Arabic machine translation remains challenging due to dialectal diversity and limited resources (Farhan *et al*., 2020). While LLMs such as ChatGPT and Bard have improved translation across various Arabic varieties, they still struggle to fully capture linguistic and cultural nuances (Kadaoui *et al*., 2023). Evaluations of open-source LLMs like Gemma2-9B reveal progress, but these models continue to lag behind leading commercial systems, particularly for low-resource languages (Cui *et al*., 2025).

2.3.1 Machine Translation Approaches

The single-excerpt analysis of literary translations produced by DeepL, Google Translate, and ChatGPT are primarily generated using neural machine translation (NMT) approaches based on transformer architectures. DeepL and Google Translate employ advanced neural machine translation (NMT) models trained on large parallel corpora to optimize for fluency and accuracy (Wang *et al.,* 2022). Meanwhile, ChatGPT utilizes a large language model (LLM) that leverages contextual understanding and generative capabilities to perform translation tasks (Radford *et al*., 2019). Although all three tools rely on transformer-based neural networks, DeepL and Google Translate are specialized for translation, whereas ChatGPT is a general-purpose model that can adapt to literary translation through prompt engineering (Hendy *et al*., 2023; Moslem *et al*., 2023). The evaluation of the translated excerpts is conducted according to five distinct criteria: fidelity, fluency, linguistic accuracy, stylistic adequacy, and overall translational performance.

2.3.2 Translation Systems and Tools

2.3.2.1 ChatGPT (2023)

The *ChatGPT* platform, short for Chat Generative Pre-Trained Transformer, was developed by *OpenAI*. This AI-powered chatbot is accessible online, free of charge. It burst onto the public scene in 2022. Since then, its detailed and structured responses have captured much attention. While not primarily a translation tool, it can serve as one if users provide original text and request a translation. *ChatGPT* utilizes Natural Language Processing technology. It has been trained on a diverse array of texts, enabling it to produce coherent and contextually appropriate replies. For this paper, the chatbot received the command: "*translate the following text into Arabic*.".

2.3.2.2 Google Translate (n.d.)

Google's Machine Translation (MT) platform was born in 2006. Since its inception, it has undergone significant evolution and modernization. In 2016, Google Translate researchers began using what Google called Google Neural Machine Translation (GNMT), replacing the statistical method that had been used since 2017 to increase the fluency and capacity of its automatic translations. At Google, the algorithm learns through a method that involves learning from millions of examples, thereby expanding the context and deducing the most relevant translation (Schuster et al., 2016). Today, GT stands as one of the most popular MT platforms. Users flock to it for its free and accessible nature. It has earned its place as "one of the most popular machine translation tools available online" (Endriga and Rosario 2024: 84). Initially, Google Translate relied on a rule-based

approach for its translations. Over time, it transitioned to a statistical model. Now, with the neural network system in place, GT can translate entire sentences. This advancement harnesses the power of artificial intelligence and considers context, delivering more nuanced translations.

2.3.2.3 DeepL (2021)

DeepL is "a general-purpose system" (Toral *et al.* 2024: 35). This platform enables more accurate and context-aware translations, making DeepL a noteworthy player in the realm of MT. In 2017, the *DeepL* translator—an abbreviation for deep learning—was launched online at no cost. By 2018, a paid subscription model was introduced, targeting professional translators and businesses. For this paper, the free version was chosen to align with other machine translation (MT) tools under analysis. It is essential to note that the free version has certain limitations. Specifically, it can only translate texts up to five thousand (5,000) characters. DeepL employs convolutional neural networks (CNN) to enhance its translation capabilities.

3. Methodology

This research employs a qualitative and comparative methodology to descriptively analyze and compare selected excerpts. Unlike quantitative methods, this approach emphasizes intuitive, interpretive analysis to identify decisions, errors, similarities, and differences among translations produced by machine tools and professional Arab translators. This method is best suited to address the research question regarding the distinctions and commonalities between original and machine-generated translations..

3.1 Data analysis procedure

The first step in analyzing this work was the selection of novels. Four (4) Nineteenth-century English novels were selected: *Pride and Prejudice* by Jane Austen, *Dracula* by Bram Stoker, *Frankenstein* by Mary Shelley and *Alice's Adventures in Wonderland* by Lewis Carroll. The second step was the selection of excerpts from each novel. One (1) excerpt was taken from each book to be translated into Arabic by three (3) translation machines*: ChatGPT, Google Translate* and *DeepL*. The selection of these software programs was also a crucial step in the development of this work. In addition, one (1) translation into Arabic of each excerpt produced by Arab professional translators was selected to be used as quality references.

Selecting a single, representative excerpt from each novel can enhance methodological rigor when clearly justified. This approach enables focused, in-depth qualitative analysis, allowing researchers to closely examine shifts between source and translated texts and to identify specific challenges such as figurative language or cultural references. As Venuti (2012) notes, "the formal and semantic gain that enables translation to define world literature cannot be perceived without close reading, without a detailed analysis that examines shifts between the source and translated texts" (Venuti 2012: 185-6). Close analysis of a single passage helps scholars "see where the two texts may diverge" (Munday 2016: 132).

The single-excerpt method is well established in comparative translation analysis. It allows researchers "to uncover poetic connections to, and deviations from, the literary traditions of both source and target texts" (Gentzler 2001:167). This strategy is especially effective for identifying qualitative differences in how translation tools handle complex literary features, rather than providing a broad statistical overview. By transparently stating the rationale for excerpt selection—such as choosing passages that are thematically central or stylistically rich—the study ensures its findings are relevant and transferable.

This method aligns with qualitative research traditions in translation studies, which value depth of analysis and interpretive insight over breadth. Qualitative case studies offer valuable insights into translation processes and outcomes, focusing on "the detection of translation problems as a means of creating efficient frameworks for coherent decision-making from a functional perspective" (Calvo & Cova 2024: 3). When rigorously applied, the single-excerpt approach is a valid and effective method for investigating the comparative reliability of machine translation tools in literary contexts.

For each novel, two excerpts were selected: the opening paragraph for *Pride and Prejudice* and *Alice's Adventures in Wonderland*, and descriptive passages for *Dracula* and *Frankenstein*. To avoid redundancy, a distinct translation aspect was analyzed in each excerpt. Each excerpt was translated from English to Arabic using Google Translate, DeepL, and ChatGPT, alongside the official human translation, resulting in five versions per novel. All versions were then sentence-aligned for comparative analysis.

4. Results

4.1. Analysis

By selecting polysemic words, this analysis aims to assess how well each digital tool captures multiple meanings in literary texts and to identify common error types and limitations for future improvement. The study uses excerpts from four classic novels—*Pride and Prejudice*, *Dracula*, *Frankenstein*, and *Alice's Adventures in Wonderland*. For context, *Pride and Prejudice* (1813) by Jane Austen is a seminal work of English literature, offering sharp social critique and exploring themes of class, gender, and personal growth through the evolving relationship between Elizabeth Bennet and Mr. Darcy. *Dracula*, written by Bram Stoker (1847–1912) was first published in 1897. It is an epistolary novel told through letters and documents. It is a cornerstone of English Gothic horror, introducing the iconic figure of Count Dracula that shapes the modern image of the aristocratic, supernatural vampire. *Frankenstein* (1818) by Mary Shelley revolutionized literature by pioneering science fiction with its Gothic tale of Victor Frankenstein and his creation. It explores profound questions about humanity and monstrosity. *Alice's Adventures in Wonderland* (1865) by Lewis Carroll (1832–1898) is celebrated for its imaginative, nonsensical style that challenges logic and reality as Alice journeys through a fantastical world. It exemplifies the playful, riddling nature of nineteenth-century children's literature that "intentionally utilized riddling for ironic-satirical effect" (Danesi 2023: 53).

Each of these remarkable novels has undergone extensive adaptation into film. They have inspired a multitude of derivative works, branching out in countless directions. Their narratives are instantly recognizable, captivating a wide array of audiences. Even those who do not regularly indulge in reading are familiar with these tales. These stories resonate deeply within our everyday lives. They are woven into the fabric of our culture, referenced in conversations, art, and media. Different cultures reinterpret them, breathing new life into their timeless themes. Each retelling expands their reach, ensuring that their essence endures through the ages.

4.1.1 Jane Austen's *Pride and Prejudice*

The following excerpt is the opening paragraph of the novel. One can notice some discrepancies between the translations presented. However, the one that stands out the most is the translation of "*single man*".

Table 1. Translations of Jane Austen's *Pride and Prejudice*.

Original Text	"It is a truth universally acknowledged, that a **single man** in possession of a good fortune, must be **in want of** a wife" (Austen 1992, *Emphasis added*).
Translation by Taghrid Fayadh (2019)	إنها حقيقة معروفة عالمياً أن **الرجل الأعزب** والذي يملك ثروة، لا بد أنه **بحاجة إلى** زوجة.
ChatGPT	إنها حقيقة معترف بها عالميًا، أن **الرجل الأعزب** الذي يمتلك ثروة جيدة، لا بد أن يكون **في حاجة إلى** زوجة.
Google Translator	إنها حقيقة معترف بها عالميًا، أن **الرجل العازب** الذي يمتلك ثروة جيدة، لا بد أن يكون **في حاجة إلى** زوجة.
DeepL	إنها لحقيقة معترف بها عالمياً، أن **الرجل الأعزب** الذي يملك ثروة جيدة، لا بد أن يكون **في حاجة إلى** زوجة.

The translations of the original English text present a rich landscape of linguistic choices, each reflecting distinct interpretations of Jane Austen's iconic opening line. Fayadh's translation captures the essence succinctly. Her phrase "حقيقة معروفة عالمياً" effectively conveys the universal nature of the statement, immediately establishing its significance. However, the choice of "الرجل الأعزب" feels slightly less formal compared to the original's tone. The term may lack the implications of social standing and desirability present in the phrase "a single man in possession of a good fortune." Overall, Fayadh's translation is clear and accessible, but it sacrifices some of the original's sophisticated flavor.

ChatGPT's rendition, on the other hand, introduces a touch of elegance with " حقيقة معترف بها عالميًا". This choice not only enhances the statement's authority but also mirrors the original's eloquence. The phrase "الرجل الأعزب الذي يمتلك ثروة جيدة" adds a layer of sophistication. Here, the translation retains the original's meaning, emphasizing both the man's status and his wealth. This translation strikes a balance between clarity and fidelity to Austen's refined style, making it highly effective. Google Translator offers a similar phrasing to ChatGPT, stating "حقيقة معترف بها عالميًا." This presents a strong parallel to the original. Still, it opts for "الرجل العازب" (the bachelor), which feels more contemporary. While this choice makes the translation relatable, it slightly alters the formality and societal implications inherent in the term "single man." Despite this minor divergence,

the overall structure remains intact, preserving the . The choice of vocabulary here reflects a modern sensibility, appealing to contemporary readers while maintaining coherence. DeepL's translation begins with "إنها لحقيقة معترف بها عالمياً". While the addition of "لحقيقة" adds a grammatical emphasis, it introduces an unnecessary weight that the original lacks. This slight exaggeration may compromise the original's sharpness and clarity. The term "الرجل الأعزب" aligns with Fayadh's choice, and like the others, it maintains the essential meaning of the passage.

However, DeepL's phrasing may come across as less fluid compared to the more polished translations by ChatGPT and Google Translator. Each translation offers unique strengths and weaknesses. Fayadh's version is concise and straightforward, making it accessible, yet it lacks the formal elegance of the original. ChatGPT excels at capturing the sophistication and tone of Austen's prose, striking a balance between clarity and a rich vocabulary. Google Translator provides clarity and modernity but at the expense of some of the original's subtlety. DeepL, while accurate, introduces slightly awkward phrasing that may detract from the reading experience. Together, these translations reflect varied interpretations of Austen's original wit and sophistication, showcasing the challenges and creative decisions inherent in the art of translation. Each translator brings their voice and perspective, enriching the understanding of this classic text while navigating the delicate balance between fidelity and readability.

4.1.2 Bram Stoker's *Dracula*

The selected excerpt from the novel *Dracula* refers to a segment of the first physical description of the vampire in the book.

Table 2. Translations of Bram Stoker's *Dracula.*

Original Text	**His face was a strong–a very strong–aquiline, with high bridge of the thin nose and peculiarly arched nostrils; with lofty domed forehead, and hair growing scantily round the temples but profusely elsewhere.** His eyebrows were very massive, almost meeting over the nose, and with bushy hair that seemed to curl in its own profusion. The mouth, so far as I could see it under the heavy moustache, was fixed and rather cruel-looking, with peculiarly sharp white teeth; these protruded over the lips, whose remarkable ruddiness showed astonishing vitality in a man of his years (Stoker 2012, *Emphasis added*).
Translation by Mahdi Sulieman (2022)	**كان وجهه معقوفًا بشدة، ولأنفه الرفيع عظمة مرتفعة ومنخران مقوَّسان بصورة غريبة، وجبهة مقبَّبَة مرتفعة، وشعرٌ ينتشر بشكل خفيف حول الصدغين وكثيف جدًا فيما عدا ذلك.** حاجباه كبيران جدًا، يلتقيان تقريبًا فوق الأنف، ولهما شعر كثٌّ بدا مموجًا من فرط كثافته. أما الفم، ووفق ما تيسَّر لي أن أرى منه تحت الشاربين الكثيفين، فكان ثابت الهيئة وقاسي الملامح، بأسنانَ بيضاء حادة على نحوٍ غريب، بارزةً فوق الشفتين. وأظهرتْ حمرة شفتيه الواضحة حيويةً مذهلة في رجلٍ في مثل سنه.
ChatGPT	**كان وجهه قويًا ـ قويًا جدًا ـ ذو أنف معقوف، مع جسر عالٍ لأنف رفيع وفتحات أنف مقوسة بشكل غريب؛ وكان لديه جبهة مرتفعة وقبة، وشعر ينمو بشكل قليل حول الصدغين لكنه كان غزيرًا في أماكن أخرى.** كانت حواجبه ضخمة جدًا، تقريبًا تلتقي فوق الأنف، مع شعر كثيف يبدو أنه يتجعد بفعل كثافته. أما الفم، فكان كما استطعت رؤيته تحت الشارب الكثيف، ثابتًا ويبدو قاسيًا إلى حد ما، مع أسنان بيضاء حادة بشكل خاص؛ كانت هذه الأسنان بارزة فوق الشفاه، التي كانت تتسم بحمرة ملحوظة تظهر حيوية مذهلة في رجل في سنه.

Google Translator	**كان وجهه قويًا ـ قويًا جدًا ـ مع جسر مرتفع للأنف النحيف ومنخرين مقوسين بشكل غريب؛ وجبهة عالية مقببة، وشعر ينمو بشكل ضئيل حول الصدغين ولكن بغزارة في أماكن أخرى.** كانت حواجبه ضخمة جدًا، تكاد تلتقي فوق الأنف، وشعره كثيف يبدو وكأنه يتجعد بغزارة. كان فمه، بقدر ما أستطيع أن أراه تحت الشارب الثقيل، ثابتًا وقاسي المظهر إلى حد ما، بأسنان بيضاء حادة بشكل غريب؛ كانت هذه الأسنان بارزة فوق الشفاه، التي أظهر احمرارها الملحوظ حيوية مذهلة في رجل في مثل عمره.
DeepL	**كان وجهه قويًا ـ قويًا جدًا ـ قويًا جدًا، مع جسر أنفه الرفيع المرتفع ومنخريه المقوسين بشكل غريب؛ وجبهته مقببة عالية وشعره ينمو بشكل ضئيل حول الصدغين ولكنه كان ينمو بغزارة في أماكن أخرى.** وكان حاجباه ضخمين جداً، يكادان يلتقيان على الأنف، وشعر كثيف يبدو أنه كان يتجعد بغزارة. كان الفم، بقدر ما استطعت أن أراه تحت الشارب الثقيل، ثابتاً وقاسي المظهر إلى حد ما، مع أسنان بيضاء حادة بشكل غريب؛ وكانت هذه الأسنان بارزة فوق الشفتين اللتين أظهرتا حيوية مدهشة في رجل في مثل سنه.

Due to greater stylistic freedom, human translators possess options. They can enhance the original text by adapting it to their unique style or the editorial group's intent behind the book's translation and distribution. The translations of the original English text from *Dracula* present a fascinating study in stylistic variation and interpretative nuance. Mahdi Sulieman's translation (2022) stands out for its formal and descriptive tone, employing phrases like "معقوفًا بشدة" (*strongly aquiline*) and "شفتين" (*lips*) to . His attention to detail is remarkable, particularly in the descriptions of facial features, which faithfully retain the complexity of Stoker's writing. The fluency of Sulieman's translation offers a natural flow in Arabic, striking a balance between formal language and clarity.

In contrast, the translation generated by ChatGPT provides a more straightforward and clearer rendition. While it captures the essence of the original text, it is slightly less elaborate in its descriptive language compared to Sulieman. The structure remains coherent, yet some phrases may come off as more mechanical, lacking the emotional depth found in Sulieman's work. Meanwhile, Google Translator's version generally achieves accuracy but often misses the nuances present in the original and the other translations. Its simpler constructions convey the main ideas effectively, but the result can sound robotic and less fluid. DeepL's translation, while reasonably accurate, also captures much of the original intent. However, it tends to repeat phrases like "قويًا جدًا" (*very strong*), which can feel redundant. The logical structure of DeepL's output is commendable, yet it may not possess the same literary quality as Sulieman's translation. Each translation exhibits its strengths and weaknesses. Sulieman's translation excels in stylistic richness and detail, rendering it the most engaging of the translations. ChatGPT offers clarity and coherence, while Google Translator and DeepL prioritize accuracy but sacrifice some nuances and fluidity. Ultimately, the choice of translation may depend on the reader's preference for either style or straightforwardness, highlighting the intricate ways in which language can be interpreted and rendered.

4.1.3 Mary Shelley's *Frankenstein*

The chosen passage for our analysis stands out as one of the most renowned paragraphs in Gothic literature. It captures the dramatic scene of the monster's creation, a moment steeped in tension and intrigue. The descriptive quality of this excerpt allows for a rich exploration of language. Notably, the selection of adjectives varies significantly throughout the text. This diversity in language serves to enhance the emotional depth and vivid imagery. Thus, our analysis will focus intently on this intriguing aspect of the passage.

Table 3. Translations of Mary Shelley's *Frankenstein.*

Original Text	It was on a dreary night of November that I beheld the accomplishment of my toils. With an anxiety that almost amounted to agony, I collected the instruments of life around me, that I might infuse a spark of being into the **lifeless** thing that lay at my feet. It was already one in the morning; the rain pattered **dismally** against the panes, and my candle was nearly burnt out, when, by the glimmer of the half-extinguished light, I saw the **dull** yellow eye of the creature open; it breathed hard, and a convulsive motion agitated its limbs. (Shelley 2003).
Translation by Hisham Fahmi (2015)	في ليلةٍ كئيبة من نوفمبر تطلَّعتُ إلى نتيجة عملي، وبلهفةٍ كادت تبلغ حَدَّ الألم جمعتُ أدواتي حولي لأبث الحياة في الشيء الميِّت المستلقي عند قدميَّ. كانت الساعة قد بلغت الواحدة صباحًا، وقطرات المطر تَضرب زجاج النوافذ في صوتٍ مثير للتوجُّس، وضوء شمعتي يكاد ينطفئ، عندما رأيتُ الكائن على الضوء الخابي يفتح عينيه الصفراوين الفاترتين ويشهق في عُمقٍ وتتحرَّك أطرافه في تشنُّج.
ChatGPT	في ليلة كئيبة من نوفمبر، شهدت إنجاز جهودي. مع قلق يكاد يصل إلى العذاب، جمعت أدوات الحياة من حولي، لكي أضفي شرارة الحياة على الشيء عديم الحياة الذي كان ملقى عند قدمي. كانت الساعة قد تجاوزت الواحدة صباحًا؛ كانت الأمطار تتساقط بحزن على النوافذ، وكان شمعتي قد أوشكت على الانطفاء، حين، من خلال خفق الضوء المنطفئ جزئيًا، رأيت العين الصفراء الباهتة للمخلوق تفتح؛ كان يتنفس بصعوبة، وحركة تشنجية اهتاجت أطرافه..
Google Translator	في ليلة كئيبة من شهر نوفمبر/تشرين الثاني، رأيت إنجاز أعمالي. وفي قلق كاد يصل إلى حد الألم، جمعت أدوات الحياة من حولي، حتى أتمكن من بث شرارة الوجود في ذلك الكائن الذي لا حياة فيه والذي كان يرقد عند قدمي. كانت الساعة قد اقتربت من الواحدة صباحًا؛ وكان المطر يهطل بغزارة على الزجاج، وكادت شمعتي تحترق، عندما رأيت عين الكائن الصفراء الباهتة مفتوحة في ضوء نصف مطفأ؛ كان يتنفس بصعوبة، وحركت حركته المتشنجة أطرافه.
DeepL	في ليلة كئيبة من ليالي نوفمبر الكئيبة شاهدت إنجاز أعمالي. وبقلق يكاد يصل إلى حد العذاب، جمعت أدوات الحياة من حولي لكي أبث شرارة الحياة في ذلك الشيء الهامد الراقد تحت قدمي. كانت الساعة الواحدة صباحًا، وكان المطر يتناثر على ألواح الزجاج بشكل كئيب، وكانت شمعة الشمعة قد أوشكت على الاحتراق، عندما رأيت، من خلال بصيص الضوء النصف مطفأ، عين المخلوق الصفراء الباهتة مفتوحة؛ كان يتنفس بصعوبة، وحركة متشنجة تحرك أطرافه.

The translations of the original English text present a web of stylistic choices, each illuminating Mary Shelley's haunting prose in its way. Hisham Fahmi's translation (2015) captures the essence of the original with intensity. Phrases such as "ليلةٍ كئيبة من نوفمبر" (a dreary night of November) set a somber tone. His use of "بلهفةٍ كادت تبلغ حَدَّ الألم" (with a longing that almost reached the threshold of pain) evokes a deep emotional turmoil. The imagery of the "العينين الصفراوين الفاترتين" (dull yellow eyes) is particularly striking, enhancing the creature's lifelessness before awakening. The rhythmic flow of his language resonates well, drawing readers into the scene's tension.

In contrast, ChatGPT's rendition maintains clarity while echoing the original's dramatic flair. The phrase "شاهدت إنجاز جهودي" (I beheld the accomplishment of my efforts) conveys a sense of personal triumph. However, it lacks some of the poetic depth found in Fahmi's translation. The description of the rain, "الأمطار تتساقط بحزن" (the rain fell sadly), captures the dreariness but feels slightly more straightforward. Google Translator, in turn, offers a more mechanical approach. While it accurately represents the text, phrases like "رأيت إنجاز أعمالي" (I saw the accomplishment of my works) feel less evocative. The

translation is precise but lacks the emotional resonance present in the others. The imagery of the rain "يهطل بغزارة على الزجاج" (raining heavily on the glass) is accurate yet lacks the atmospheric weight of the original. DeepL's translation strikes a balance between the poetic and the precise. It begins with "شاهدت إنجاز أعمالي" (I witnessed the accomplishment of my efforts), similar to Google Translator but with a slightly richer tone. The use of "الشيء الهامد الراقد" (the lifeless thing lying) is vivid, though not as impactful as Fahmi's "الميت المستلقي" (the lifeless thing lying). The rhythmic quality is present, yet it does not fully capture the haunting essence of Shelley's prose.

Each translation offers a unique lens through which to view Shelley's work. Fahmi's version stands out for its emotional depth and lyrical quality. ChatGPT provides clarity and drama, while Google Translator focuses on accuracy at the expense of tone. DeepL ing precision with poetic imagery. The choice among them ultimately reflects the reader's preference for style, emotion, and depth in translation. The majority of adjectives translated yielded favorable results, with lexical variations that do not alter the context. The adjectives translated in distinct forms include: “lifeless” (“الميّت”, “عديم الحياة,” “لا حياة” and “الهامد”); “dismally” (“في صوتٍ مثير للتوجُّس”, “بحزن,” “بغزارة,” and “بشكل كئيب,”); “half-extinguished” (“الخابي,” “المنطفئ جزئيًا,” and “نصف مطفأ”); “dull” (“الفاترتين” and “الباهتة”).

In this regard, it is evident that human and machine translations perform better in translating adjectives. It is worth noting that since the translator’s goal is to capture the original tone and convey it to a new audience, it appears more viable for the human translator to translate “dull” as “الفاترتين,”, rather than as “الباهتة.” as done by the TAs. Yet, the translation by the GT platform stands out as the least satisfactory, exhibiting significant discrepancies. While the other TAs managed to translate the passage without glaring errors, GT renders “the rain pattered dismally against the panes” as “ وكان المطر يهطل بغزارة على الزجاج.” Here, the TA mistranslates the adjective “dismally,” which conveys sadness and gloom, as “بغزارة,” lacking any reasonable justification for this choice. Furthermore, in translating “half-extinguished,” the platform converts the adjective into an action, stripping away the descriptive intent of “نصف مطفأ” and attributing an action to the act of almost extinguishing the candle, which does not occur in the original passage.

4.1.4 Lewis Carroll’s *Alice’s Adventures in Wonderland*

The passage under examination is the opening paragraph of Lewis Carroll's enchanting novel. Here, one can discern notable distinctions between machine translations and the human touch exemplified by Ahmed Khalid Tawfiq’s work from 2008. These variations highlight the nuances that technology often overlooks, revealing the depth of human interpretation.

Table 4. Translations of Lewis Carroll’s *Alice’s Adventures in Wonderland*

Original Text	Alice was beginning to get very tired of sitting by her sister on the bank, and of having nothing to do: once or twice she had peeped into the book her sister was reading, but it had no pictures or conversations in it, “and what is the use of a book,” thought Alice, “without pictures or conversations?” (Carroll 2002, emphasis added).
Translation by Ahmed Khalid Tawfiq (2008)	بدأت (أليس) تشعر بالسأم من جلوسها جوار أختها على ضفة النهر بلا شيء تعمله.. كانت أختها تطالع كتابا ليست فيه صور ولا محادثات تساءلت (أليس): ما نفع كتاب بلا صور ولا محادثات؟!

ChatGPT	أليس كانت تبدأ تشعر بالتعب الشديد من الجلوس بجانب أختها على الضفة، ومن عدم وجود شيء تفعله: لقد نظرت مرة أو مرتين إلى الكتاب الذي كانت تقرأه أختها، لكنه لم يكن يحتوي على صور أو محادثات، "ما فائدة الكتاب"، فكرت أليس، "بدون صور أو محادثات؟"..
Google Translator	بدأت أليس تشعر بالتعب الشديد من الجلوس بجانب أختها على ضفة النهر، ومن عدم وجود ما تفعله: مرة أو مرتين نظرت إلى الكتاب الذي كانت أختها تقرأه، لكنه لم يكن يحتوي على صور أو محادثات، "وما فائدة الكتاب"، فكرت أليس، "بدون
DeepL	كانت أليس قد بدأت تتعب كثيراً من جلوسها بجانب أختها على الضفة، ومن عدم وجود ما تفعله: كانت قد اختلست النظر مرة أو مرتين إلى الكتاب الذي كانت تقرأه أختها، ولكن لم يكن فيه صور أو أحاديث" "وما فائدة الكتاب" كما فكرت أليس "بدون صور أو أحاديث؟

The translations of Lewis Carroll's whimsical opening passage from *Alice's Adventures in Wonderland* reveal a fascinating interplay of style and tone. Each version reflects a distinct interpretation of the original text, highlighting the complexities of translation. Ahmed Khalid Tawfiq's human translation effectively encapsulates Alice's essence. He begins with "بدأت (أليس) تشعر بالسأم". This phrase conveys Alice's growing frustration. The construction "بلا شيء تعمله" mirrors the original's sense of inactivity. However, his phrase "تساءلت (أليس): ما نفع كتاب بلا صور ولا محادثات؟!" simplifies the original's complexity. While this directness captures sentiment, it loses some of the playful tone inherent in Carroll's prose. ChatGPT's rendition adds a touch of elegance. It begins with "أليس كانت تبدأ تشعر بالتعب الشديد". This phrasing captures the depth of Alice's fatigue more vividly. The structure maintains the original's rhythm. The phrase "لقد نظرت مرة أو مرتين" retains a sense of curiosity. Yet, the use of "ما فائدة الكتاب" shifts the emphasis from "use" to "benefit." This subtle change alters the connotation, making it feel slightly more formal. Google Translator, in turn, offers a similar approach. It starts with " بدأت أليس تشعر بالتعب الشديد", closely aligning with ChatGPT's translation. This version is clear and fluid. However, the phrase "وما فائدة الكتاب" remains consistent with the original. Yet, it lacks the engaging tone that characterizes Alice's internal monologue. Google Translator's version is accessible but somewhat straightforward, lacking the playful spirit of the original. DeepL's translation begins with "كانت أليس قد بدأت تتعب كثيراً". This phrasing introduces an unnecessary emphasis with "قد," which could detract from the immediacy of Alice's feelings. The use of "اختلست النظر" adds intrigue but strays from the simplicity of "peeped." This choice may complicate the reader's understanding. Furthermore, "أحاديث" is a formal choice that may not fully capture the playful essence of "conversations" in the original.

Each translation presents unique strengths and weaknesses. Tawfiq's version is concise and poetic. It effectively conveys Alice's boredom but sacrifices some of the playful tone. ChatGPT excels in capturing tone and maintaining rhythm. However, it shifts the emphasis slightly. Google Translator provides clarity and fluidity while remaining somewhat straightforward. DeepL, while accurate, introduces awkward phrasing and formality that may detract from the original's whimsy. These translations reflect the complicated challenges of capturing Carroll's playful language. They also illuminate the subtleties of Alice's character. Each translator brings their voice and perspective. This enriches the understanding of this beloved classic while navigating the delicate balance between fidelity and creative freedom of expression. The task of translating Carroll's work is not simple at all. Each translator must grapple with the original's charm, rhythm and poetics. Their choices shape how readers perceive Alice's world. The variations highlight the beauty and poetics of language, as well as the art of translation. Each rendition invites readers to engage with the text in a new way, making

the journey through Wonderland a shared adventure. However, the comparison clearly shows that human translations are more poetic in capturing the essence of the text. AI platforms are generally unable to assign a new syntactic structure to the original text. This results in a literal translation that remains constant.

5. Discussion

From a comparative analysis of translations by human translators and three machines, insights emerge. The works examined include *Pride and Prejudice* (1813), *Dracula* (1897), *Frankenstein* (1818), and *Alice's Adventures in Wonderland* (1816). Bassnett (2011, 2014), Lefevere (2003), Landers (2001), Youdale (2020, 2024), Chan (2015, 2018) were indeed correct. Their emphasis on the role of technology in literary translation stands out. When we scrutinize machine translations, concerns arise. Issues of literalness versus figurativeness emerge. A lack of prior knowledge about cultural and temporal tones plagues these translations. Context is crucial, as are syntactic, semantic, morphological, stylistic, and creative limitations. Compared to human translations, the discrepancies in those by machine translators (ChatGPT, GT, and DeepL) align with these highlighted concerns. In the translations of the excerpt from *Pride and Prejudice*, the significance of context and semantics becomes clear. The perils of literal translation loom large. The choice of words must capture the author's original intent to achieve an accurate translation. Furthermore, the translations of *Dracula* reveal the freedom human translators wield. They can stylistically and syntactically adapt the text to enhance its impact. The human translator is fully aware of the specific stylistic peculiarities of the source and target languages. For Aljadid and Allawzi (2024), "the Arabic language possesses unique peculiarities that can be employed" in the literary translation (Aljadid and Allawzi 2024: 448). In the case of *Frankenstein*, the focus shifts to the selection of adjectives and the syntactic structure of specific phrases. Lastly, in *Alice's Adventures in Wonderland*, we observe the human translator's ability to tailor his work poetically for a specific Arab audience. The translator skillfully mold syntax while preserving semantics, poetics, and verisimilitude.

5. Conclusion

By analyzing the selected excerpts, it is possible to notice some similarities and differences between translations made by humans and those produced using machine translation. In some cases, machine translations are very similar to human translations, with only a few lexical variations that do not alter the semantic context. On the other hand, some differences and errors, such as those related to verisimilitude, literalness, and lexical selection, as well as other errors that are not justifiable, are also evident. In short, it is notable that machine translation ely reliable and lacks the artistic and stylistic credibility to translate literary texts with excellence. Although they are satisfactory alternatives for quickly translating short passages for personal use, this is not yet a viable way to officially translate and publish long texts, such as novels and short stories. However, technological aids, such as translation memory, are a good option to facilitate translation practice.

References

Aljadid, Renad, and Areej Allawzi. (2024). 'Adopting Quranic Structures in Classical Literary Translation: Selected Parts of *Jane Eyre* as a Model.' *International Journal of Arabic-English Studies*, 24(1): 447–70. https://doi.org/10.33806/ijaes.v24i1.639.

Almahasees, Zakaryia. (2022). *Analysing English-Arabic machine translation: Google Translate, Microsoft Translator and Sakhr*. London: Routledge.

Austen, Jane. (1992). *Pride and prejudice*. Hong Kong: Oxford University Press.

Austen, Jane. (2019). *كبرياء وهوى (Pride and prejudice)* [in Arabic]. Beirut, Lebanon: Dar Soual.

Bawden, Rachel, and François Yvon. (2023). 'Investigating the Translation Performance of a Large Multilingual Language Model: The Case of BLOOM.' *ArXiv*. https://arxiv.org/abs/2303.01911. (Retrieved on 6 July, 2025).

Baker, Mona. (2020). 'Reframing conflict in translation.' In Abdel-Wahab Khalifa, Hanem El-Farahaty and Sameh Hanna (eds.) *The Routledge Handbook of Arabic Translation*, 99–114. London: Routledge.

Bassnett, Susan. (2011). *Reflections on translation*. Bristol: Multilingual Matters.

Bassnett, Susan. (2014). *Translation studies*. London: Routledge.

Calvo, Elisa, and Elena De la Cova. (2024). 'What Is This Book about and Who Is It For?' In Elisa Calvo and Elena De la Cova (eds.) *A Qualitative Approach to Translation Studies: Spotlighting Translation Problems*, 3–10. London: Routledge.

Carroll, Lewis. (2002). Alice's adventure in wonderland and through the Looking-Glass. Barcelona: Modernista.

Carroll, Lewis. (2008). أليس في بلاد العجائب (Alice's Adventures in Wonderland) [in Arabic]. Cairo, Egypt: The Modern Arab Association (Rewayat).

Chan, Sin-wai. (2015). 'Computer-aided translation: major concepts'. In Chan Sin-wai (ed.) Routledge encyclopedia of translation technology, 32–67. London: Routledge.

Chan, Sin-wai. (2018). The human factor in machine translation. Oxon: Routledge.

Cui, Menglong, Pengzhi Gao, Wei Liu, Jian Luan, and Bin Wang. (2025). 'Multilingual Machine Translation with Open Large Language Models at Practical Scale: An Empirical Study.' ArXiv. https://arxiv.org/abs/2502.02481. (Retrieved on 6 July, 2025)

Danesi, Marcel. (2023). Metaphor, riddles, and the origin of language: The Sphinx's legacy. Lanham: Lexington Books.

Dolmaya, Julie McDonough. (2024). Digital Research Methods for Translation Studies. Oxon: Routledge.

Endriga, Angeli and Francisco Rosario (2024). 'Gender Bias in Machine Translation'. In Riccardo Moratto and Mary Ann Bacolod (eds.) Translation Studies in the Philippines: Navigating a Multilingual Archipelago, 83–99. London: Routledge.

Farhan, Wael, Bashar Talafha, Analle Abuammar, Ruba Jaikat, Mahmoud Al-Ayyoub, Ahmad Bisher Tarakji, and Anas Toma. (2020). 'Unsupervised dialectal neural machine translation'. Information Processing & Management, 57(3): 102181. https://doi.org/10.1016/j.ipm.2019.102181.

Gentzler, Edwin. (2001). 'Poetics of translation.' In Mona Baker (ed.) Routledge Encyclopedia of Translation Studies, 167–170. London: Routledge.

Hadley, James Luke, Kristiina Taivalkoski-Shilov and Carlos Teixeira. (2022). Using technologies for creative-text translation. London: Routledge.

Hendy, Amr, Mohamed Abdelrehim, Amr Sharaf, Vikas Raunak, Mohamed Gabr, Hitokazu Matsushita, Young Jin Kim, Mohamed Afify, and Hany Hassan Awadalla. (2023). 'How Good Are GPT Models at Machine Translation? A Comprehensive Evaluation.' ArXiv. https://arxiv.org/abs/2302.09210. (Retrieved on 5 July, 2025).

Hutchins, John. (2003). 'Machine translation: general overview'. In Ruslan Mitkov (ed.) The Oxford Handbook of Computational Linguistics, 501–511. Oxford: Oxford University Press.

Jiao, Wenxiang, Wenxuan Wang, Jen-tse Huang, Xing Wang, and Zhaopeng Tu. (2023). 'Is ChatGPT A Good Translator? Yes With GPT-4 As The Engine.' ArXiv. https://arxiv.org/abs/2301.08745. (Retrieved on 5 July, 2025).

Kadaoui, Karima, Samar M. Magdy, Abdul Waheed, Md Tawkat Islam Khondaker, Ahmed Oumar El-Shangiti, El Moatez Billah Nagoudi, and Muhammad Abdul-Mageed. (2023). 'TARJAMAT: Evaluation of Bard and ChatGPT on Machine Translation of Ten Arabic Varieties.' ArXiv. https://arxiv.org/abs/2308.03051. (Retrieved on 5 July, 2025).

Landers, Clifford E. (2001). *Literary translation: A practical guide*. Bristol: Multilingual Matters.

Lefevere, André. (2003): *Translation, history, culture: A sourcebook*. London: Routledge.

Lotman, Yu, Boris Uspensky and George Mihaychuk. (1978). 'On the semiotic mechanism of culture.' *New Literary History*. 9(2): 211-32.

Malena, Anne. (2016). 'Introduction: Mnemosyne in translation'. *TranscUlturAl: A Journal of Translation and Cultural Studies*. 8(1): 1–4. **Doi:** https://doi.org/10.21992/T9Q33Z.

Mani, Inderjeet (2014). 'Computational linguistics'. In Marie-Laure Ryan, Lori Emerson and Benjamin Robertson (eds.) *The Johns Hopkins guide to digital media*, 85–88. Baltimore: Johns Hopkins University Press.

Moslem, Yasmin, Rejwanul Haque, John D. Kelleher, and Andy Way. (2023). 'Adaptive Machine Translation with Large Language Models.' *ArXiv*. https://arxiv.org/abs/2301.13294. (Retrieved on 6 July, 2025).

Mowafy, Mai. (2023). 'Lost in (Mis)Translation: Paratextual Framing in Selected Arabic Translations of Orwell's *Animal Farm*.' *International Journal of Arabic-English Studies*, 23(2):155–76. https://doi.org/10.33806/ijaes.v23i2.458

Munday, Jeremy (2016). *Introducing translation studies: Theories and applications*. Oxon: Routledge.

Parkinson, Richard B., Whitfield Diffie, Mary Fischer and R. S. Simpson. (1999). *Cracking codes: The Rosetta Stone and decipherment*. Berkeley: University of California Press.

Radford, Alec, Jeffrey Wu, Rewon Child, David Luan, Dario Amodei, and Ilya Sutskever. (2019). 'Language models are unsupervised multitask learners'. *OpenAI*. 1(8): 9.

Roig-Sanz, Diana and Reine Meylaerts. (2018). *Literary translation and cultural mediators in 'peripheral' cultures: Customs officers or smugglers?* Cham: Palgrave Macmillan.

Rothwell, Andrew, Andy Way and Roy Youdale. (2024). *Computer-Assisted Literary translation*. London: Routledge.

Johnson, Melvin, Mike Schuster, Quoc V. Le, Maxim Krikun, Yonghui Wu, Zhifeng Chen, Nikhil Thorat, Fernanda Viégas, Martin Wattenberg, Greg Corrado, Macduff Hughes, and Jeffrey Dean. (2016). 'Google's Multilingual Neural Machine Translation System: Enabling Zero-Shot Translation.' *ArXiv*. https://arxiv.org/abs/1611.04558. (Retrieved on 6 March, 2025).

Shelley, Mary. (2003). *Frankenstein: the modern Prometheus*. New York: Penguin Books.

Shelley, Mary. (2015). *فرانكنشتاين (Frankenstein)* [in Arabic]. Beirut, Lebanon: Dar Altanweer.

Stoker, Bram. (2012). *Dracula*. New York: Penguin Classics.

Stoker, Bram. (2022). *دراكولا (Dracula)* [in Arabic]. Beirut, Lebanon: Dar Al-Rafidain.

Tekwa, Kizito. (2023). *Machine translation and foreign language learning*. Singapore: Springer.

Toral, Antonio, Andreas Van Cranenburgh and Tia Nutters. (2024). 'Literary-Adapted Machine Translation in a Well-Resourced Language Pair: Explorations with More Data and Wider Contexts'. In Andrew Rothwell, Andy Way and Roy Youdale (eds.) *Computer-Assisted Literary Translation*, 27–52. London: Routledge.

Venuti, Lawrence. (2012). 'World literature and translation studies'. In Theo D'haen, David Damrosch and Djelal Kadir (eds.) *The Routledge Companion to World Literature*, 180-193. London: Routledge.

Wang, Haifeng, Hua Wu, Zhongjun He, Liang Huang, and Kenneth Ward Church. (2022). 'Progress in machine translation'. *Engineering*. 18(2): 143-153. https://doi.org/10.1016/j.eng.2021.03.023.

Washbourne, Kelly. (2019). 'Introduction'. In Kelly Washbourne and Ben Van Wyke (eds.) *The Routledge Handbook of Literary Translation*, 1–7. London: Routledge.

Youdale, Roy. (2020). *Using computers in the translation of literary style challenges and opportunities*. London: Routledge.