

Evaluating the Fidelity and Accuracy of ChatGPT 4 and Google Translate in Translating Legal English Documents into Arabic – and Vice Versa

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ABSTRACT

Evaluating the fidelity and accuracy of translations, especially in legal English documents into Arabic and vice versa, requires a detailed analysis considering multiple dimensions such as linguistic precision, cultural nuance, legal terminology accuracy, and preserving the document's original intent. ChatGPT4 and Google Translate offer valuable services in this domain. However, their effectiveness can vary based on the complexity of the text, the specificity of legal terms, and the nuances of both the source and target languages. To achieve the goal of this study, the researcher selected five deferent samples legal documents to translate them via ChatGPT4 and Google Translate, then comparing their translations to each to see which of the is more accurate than the other. The study concluded that... Google Translate excels at translating specialized terms due to its vast and updated data, making it effective in fields like law. ChatGPT offers broader conversational ability but may not match specialized translation accuracy

المخلص

تتطلب عملية تقييم وضمان دقة الترجمات، خاصة فيما يتعلق بالوثائق القانونية المترجمة من اللغة الإنجليزية إلى العربية والعكس، تحليلاً شاملاً يأخذ في الحسبان عدة جوانب مثل الصحة اللغوية، النواحي الثقافية الخاصة، دقة استخدام المصطلحات القانونية، والحرص على الحفاظ على الهدف الأصلي للنص. توفر كل من محولات الدردشة التوليدية المدربة مسبقاً 4 وترجمة جوجل خدمات ذات قيمة في هذا السياق. بيد أن فاعلية كل منهما قد تتفاوت تبعاً لتعقيد النص، تخصص المصطلحات القانونية، والدقائق اللغوية في كل من اللغة المصدر والهدف. بهدف التوصل إلى نتائج محددة لهذه الدراسة، اختارت الباحثة خمس نماذج متباينة من الوثائق القانونية لترجمتها عبر محولات الدردشة التوليدية المدربة مسبقاً 4 وترجمة جوجل، ومن ثم إجراء مقارنة بين الترجمات المستحصلة لتحديد أي من الخدمتين تقدم ترجمة أكثر دقة. ... تتفوق خدمة الترجمة من جوجل ترجم في ترجمة المصطلحات المتخصصة نظراً لبياناتها الهائلة والمحدثة،

مما يجعلها فعالة في مجالات مثل القانون. يوفر محولات الدردشة التوليدية المدربة مسبقاً شات جي بي تي (4) قدرة محدثة أوسع ولكنه قد لا يتطابق مع دقة الترجمة المتخصصة....

KEYWORDS: Chat Generative Pre-Trained Transformer (ChatGPT4), Google Translate, Legal Documents, Artificial intelligence (AI)

Clarifying Terms

1. Machine Translation

Hutchins and Somers (1992) describe Machine Translation (MT) as a technology that uses artificial intelligence and computational linguistics to automatically translate text between different languages, helping individuals and organizations communicate with multilingual audiences without needing extensive language skills.

2. Google Translate

Google Translate (GT) is a highly versatile tool that utilizes neural machine translation (NMT) technology to translate text, documents, and websites across various languages. NMT is an advanced deep-learning model designed to improve translation accuracy and fluency by learning from vast amounts of data.

3. Neural Machine Translation

Neural Machine Translation (NMT) uses artificial neural networks to translate languages by learning from sizeable bilingual text datasets. Unlike traditional rule-based systems, NMT captures linguistic nuances and patterns, providing context-aware translations of idiomatic expressions.

4. Artificial Intelligence (AI).

Microsoft's 2018 definition describes artificial intelligence (AI) as technologies that simulate human cognitive processes. A key aspect of AI is machine learning; enabling algorithms to enhance their task performance without explicit scenario-based programming .AI

capabilities include speech recognition, data analysis, decision-making, and predicting human or logical responses.

5. Controlled language

Controlled language as described by Kaji in 1999, limits vocabulary, grammar, and style to improve accuracy in human and machine translations. It's a type of natural language.

6.ChatGPT

In late 2022, OpenAI launched ChatGPT using the GPT-3 model to enhance chatbot features. Since then, it has been upgraded to GPT-4, a multimodal model that handles text and images. GPT-4 excels in many academic and professional tasks, though it sometimes outperforms humans.

7.The Objectives of the Study

This study evaluates the accuracy and reliability of ChatGPT4 and Google Translate in translating legal documents between English and Arabic, comparing them to expert human translators. It investigates the strengths and limitations of these AI tools in handling complex legal terminology and provides insights into the impact of AI on legal translation practices.

8.Limitations of the Study

The study's findings are specific to the analyzed samples and should not be generalized. Additionally, the research only used ChatGPT4 and Google Translate to translate English legal documents.

Research Question

The current paper seeks to answer the following question:

Would it be advisable to utilize ChatGPT4 and Google Translate to translate legal English documents into Arabic and vice versa?

9.Introduction

Integrating AI in legal translation presents both significant opportunities and challenges. Legal language is complex; every term and phrase carry important implications and often lacks direct equivalents in other languages. Tools like ChatGPT4 and Google Translate have advanced, offering foundational translations and reducing errors, even in complex language pairs like English and Arabic. However, AI still needs to work on the contextual nuances and specialized jargon of legal terminology. Despite these challenges, AI is beneficial in creating initial drafts and handling more straightforward content, which can reduce the workload on human translators. Nevertheless, the precision required in legal documents means that the expertise of legal professionals remains crucial for ensuring the accuracy and appropriateness of language. The current best practice is a collaborative approach where AI supports human translators, who check for complex texts and contextual accuracy. As AI tools continue to improve, they remain aids to enhance human effort, not replace it, ensuring translations are both accurate and culturally informed. In a collaborative approach, AI is used to generate initial translations, which are then reviewed and refined by human translators. This partnership between human expertise and AI, where each complements the other's strengths, is the future of legal translation.

10. An Overview of Translation Technology throughout History

Machine Translation (MT) explores humanity's efforts to automate language translation, merging technological and philosophical insights. Originating in the 17th century with thinkers like Descartes and Leibniz, MT has evolved significantly. A pivotal moment was the mid-20th century Georgetown-IBM experiment, which, despite its limitations, highlighted the potential of MT. Criticisms by figures like Yehoshua Bar-Hillel in the 1960s and the influential ALPAC report in 1966 recommended reducing MT research funding reflected scepticism about achieving fully automatic high-quality translation. However, research continued, notably with the University of

Montreal's MÉTÉO system, which showed that domain-specific MT could be highly accurate. The history of MT is marked by a balance between optimism and scepticism, underscoring the need for practical, tailored approaches to technology in language translation.

11. Literature review

The literature review will be divided into three sections as follows:

Firstly, Tracing the Governmental and Institutional studies on the evaluation of machine translation

The evaluation of machine translation has significantly progressed since its early challenges, highlighted by the influential ALPAC report, which underscored the need for better automatic translation systems (Hovy et al. 2002a: 1). This led to detailed assessments of translation technologies, including rigorous methodology developed in 1979 to refine evaluation techniques for the European Commission, focusing on metrics such as 'intelligibility' and 'fidelity' (Van Slype, 1979, pp. 20-21). Another research was conducted by Lehrberger and Bourbeau (1988) proposed three evaluation methods: system design assessments, user linguistic feedback, and cost-effectiveness studies. The Japanese Electronics and Information Technology Association (JEIDA), later renamed JEITA, implemented an evaluation using 14 questionnaires targeting economic and technical aspects from 1992 to 1994. The Defense Advanced Research Projects Agency (DARPA) also extensively evaluated machine translation systems for French, Spanish, and Japanese into English from 1992 to 1994, focusing on accuracy, adequacy, and informativeness (White, 2003, p. 236). As detailed by researchers like Van Slype in 1979 and further discussed by Hovy et al. in 2002, evaluation methodologies in machine translation play a pivotal role in this technological evolution. These methodologies assess translation systems' functional capabilities – measuring intelligibility and fidelity, for example – and address their practical applicability in real-world scenarios. This dual focus ensures that machine translation systems are technically proficient and practically helpful, balancing accuracy with usability.

12. Secondly, individual studies related to ChatGPT and Google Translate

The issue of translating between English and Arabic is essential in language technology, particularly given the complexity of Arabic syntax and semantics. While Google Translate has been the focus of numerous studies assessing its accuracy and utility in bridging these two linguistically distinct languages, the potential of AI models like ChatGPT4 in this area still needs to be explored. In 2013, Hijazi carried out a study to assess Google Translate's ability to convert 14 legal documents from English to Arabic. The translation errors were classified into two main categories: lexical and syntactic. Lexical errors were further divided into four subcategories: polysemy, homonymy, legal doublets, and legal adverbs. Syntactic errors dealt with morphology, concord, and modality. Although the study concluded that Google Translate was not entirely accurate and dependable for legal translation, it still provided a basic comprehension of the text's meaning, enabling readers to understand the subject matter. The study unequivocally demonstrates that Google Translate can provide a basic understanding of legal documents. However, the tool has certain limitations, as indicated by its lexical and syntactic errors.

In (2022), Al-Mahasees conducted a study comparing three machine translation systems: Google Translate, Microsoft Bing, and Sakhr. The study aimed to assess the accuracy and fluency of these systems in translating various texts between English and Arabic, explicitly focusing on documents from the United Nations (UN) and the World Health Organization (WHO). The study found that Google Translate was the most precise and effective way to translate UN and WHO documents. However, Microsoft Bing outperformed the other systems when translating English literary texts into Arabic. According to Al-Mahasees the above study, Google Translate was the most accurate and effective translation system. Consequently, according to Al-Mahasees machine translation, particularly Google

Translate, has demonstrated remarkable precision and efficacy in translating documents from the UN and WHO. Nonetheless, it has been acknowledged that other platforms, such as Microsoft Bing, may outperform Google Translate in distinct domains, such as literature translation. Therefore, it is essential to select the right translation engine based on the specific requirements and objectives of the task. Muneer Alshater (2022), conducted a study on the impact of artificial intelligence on academic performance, specifically focusing on natural language processing technologies like ChatGPT in economics and finance. The study found that ChatGPT's data analysis, scenario simulation, and result dissemination capabilities can enhance academic research. However, the study also revealed challenges that need to be addressed for AI to be fully leveraged in academia, such as the need for AI systems to better understand context and ethical standards in deployment. The study emphasized integrating human expertise with AI capabilities to optimize its effectiveness in academic settings. Hence, referring to Muneer's study, ChatGPT –a robust language model–can significantly aid academic research by providing advanced data analysis, state simulation, and result dissemination capabilities. However, the author also emphasizes the significance of context and ethical considerations when employing AI technology. Alshater suggests that the most effective approach involves a harmonious collaboration between human and AI experts. Another study conducted by Jowarder, M. I. (2023), to explore how ChatGPT, an AI chatbot, affects academic students' performance.

Data was collected through semi-structured interviews with 200 social science undergraduate students, revealing that ChatGPT was widely used and perceived as valuable and easy to adopt. Additionally, ChatGPT positively impacted academic performance, making it a valuable tool for learning and academic assistance. These findings could benefit educators and researchers looking to integrate chatbots into their teaching methods. Jowarder Views ChatGPT positively based on student experiences. Jowarder found it widely

used, valuable, easy to adopt, and impactful on academic performance, making it a helpful learning and assistance tool. The author believes these findings can benefit educators looking to incorporate chatbots into teaching. Overall, the authors highlight the potential of these technologies while acknowledging limitations and areas for improvement.

13. Thirdly, Legal Translation: Defined and Categorized

Legal translation is a highly specialized field that involves the precise transfer of legal documents and information from one language to another. It goes beyond simply translating words and requires careful consideration to ensure that the translated text effectively communicates the intended legal meaning of the source document in a different legal context.

In his work, Newmark (1982) highlighted that legal texts have a twofold purpose of being both directive and imperative. He later supplemented this observation in 1988, by proposing that legal texts may also serve an expressive function. It is important to note that the expressive function of legal texts is secondary to their primary functions of providing directives and imperatives. However, it is worth acknowledging the expressive potential of legal texts as it may have implications for their interpretation and application. Whereas, Farghal and Shunnaq (1992), stated that Legal translation distinguishes itself from other types of translation in that the message is laid down in codes and that these codes represent particular legal concepts. Both Newmark, Farghal, and Shunnaq highlight crucial aspects of legal texts. A successful legal translator needs to consider all these functions—directive, imperative, expressive, and the importance of legal codes—to ensure an accurate and effective translation.

14. Categories of Legal Translation:

Legal translation is a highly intricate field involving the translation of various types of documents, each crucial to its specific domain. These documents range from contracts and agreements, such as business

deals, employment contracts, and property leases, to court documents, such as pleadings, briefs, and judgments, as well as legislation and regulations that cover laws, statutes, and government directives. Additionally, international documents, including treaties, conventions, and other international agreements, fall under the legal translation domain. These documents can be further classified according to their legal status. Enforceable law encompasses any document with legal consequences, such as statutes and contracts. In contrast, non-enforceable law refers to documents that provide legal information for informational purposes, such as scholarly works. This classification emphasizes the diversity and complexity of legal translation and underscores its significance in both global and domestic legal environments. Benzayed, A. (2015).

15. Methodology

The researcher will implement the following procedures to accomplish the objectives of the study:

- **Document Selection:** The author will choose representative samples of English-Arabic legal documents encompassing various text types. This selection will facilitate the evaluation of translation tools under various conditions. The five samples as follows: contracts (assignment, lease), international conventions (Convention on the Rights of the Child), Whereas, the Arabic contains: Graduation Certificate and contracts in Arabic.

16. Selection Criteria

- **Text Type Variation:** The selection encompasses a range of legal document types, including contracts (assignment, lease), international conventions (Convention on the Rights of the Child), and personal documents (graduation certificate).

- **English-Arabic Pairing:** Each English document has a corresponding Arabic document, allowing for direct comparison and analysis of the translation process.

Translation Process: the selected documents will be translated via ChatGPT4 and Google Translate.

17. Comparative Analysis

This comparison will focus on several key dimensions, including legal terminology precision, adherence to legal language formalities, and the overall coherence and readability of the translated documents.

Example 1 Lease Agreement

Source text

This Lease Agreement is made and entered into on __ (day) of __ (month), __ (year), by and between _____ (hereinafter referred to as "Landlord") and _____ (hereinafter referred to as "Tenant").

ChatGPT4

هذه اتفاقية الإيجار معقودة وموقعة في __ (اليوم) من __ (الشهر)، __ (السنة)، بين _____ (يشار إليه فيما بعد بـ "المؤجر") و _____ (يشار إليه فيما بعد بـ "المستأجر")

Google Translate

تم إبرام اتفاقية الإيجار هذه وإبرامها في __ (اليوم) من __ (الشهر)، __ (السنة)، بين _____ (يشار إليه فيما يلي باسم "المالك") و _____ (يشار إليه فيما بعد باسم "المستأجر").

18. Consistency in Terminology:

- **ChatGPT4** uses "المؤجر" for "Landlord" and "المستأجر" for "Tenant". These terms are commonly used in Arabic to refer to the landlord and tenant, respectively, aligning with the legal and colloquial usage in many Arabic-speaking regions.
- **Google Translate** also uses "المؤجر" for "Landlord" and "المستأجر" for "Tenant", maintaining consistency with standard Arabic terminology. Additionally, it uses "المالك" for "Landlord" in one instance, which can also mean "owner". This term is also accurate but can be more general.

19. Grammar and Structure:

- Both translations use a structure that is grammatically correct in Arabic. They maintain the legal formal tone of the document by using passive voice ("تم إبرام") in the Google Translate version, which adds a formal and official feel, typical in legal documents.

20. Flow and Readability:

- **ChatGPT4** provides a direct translation that is clear, straightforward, and suitable for legal documents.
- **Google Translate** adds the phrase "تم إبرام", which translates to "has been made and entered into." This is an accurate translation and adds a layer of formality and specificity to the document's introduction. It emphasizes the completion and official nature of the agreement, which is a plus in legal contexts.

21. Overall Accuracy:

- Both versions are accurate and would likely be understood and accepted in legal settings within Arabic-speaking countries.

Finally, both translations are suitable, with Google Translate offering a slightly more formal version that could be preferable in legal documents where such a tone is desired. Both correctly convey the original English terms and legal implications.

Example 2 Convention on the Rights of the Child

Article 1

For the purposes of the present Convention, a child means every human being under the age of eighteen unless the majority is attained earlier under the law applicable to the child.

ChatGPT4

لأغراض هذه الاتفاقية، يعني الطفل كل إنسان دون سن الثامنة عشر ما لم يتم الوصول إلى سن الرشد مبكرًا بموجب القانون المطبق على الطفل.

Google Translate

لأغراض هذه الاتفاقية، يقصد بالطفل كل إنسان لم يتجاوز الثامنة عشرة من عمره ما لم يبلغ سن الرشد قبل ذلك بموجب القانون المنطبق على الطفل.

22. Analysis of the Translations:

- Vocabulary and Structure:** The translations accurately reflect the original English meaning, particularly in capturing the key terms 'under the age of eighteen' and 'unless the majority is attained earlier under the law applicable to the child'. Google Translate's version uses 'under the age of eighteen' and 'attaining the age of majority' in Arabic. At the same time, the alternate translation opts for 'has not exceeded eighteen' and 'reaches the age of majority', both equally valid in Arabic and potentially more natural to native speakers.
- Clarity and Formality:** Both translations maintain a formal tone suitable for legal text. The alternate translation may be

considered slightly more transparent due to its use of "يقصد بالطفل" (the child is meant to be), which explicitly defines the term "child" as per the Convention's context. This could be seen as enhancing clarity by directly linking the definition to the subject being discussed.

- **Accuracy:** Both translations correctly imply that if the applicable law recognizes an earlier age of majority, it overrides the default age of eighteen set by the Convention. This critical aspect is preserved in both versions.

In conclusion, both translations effectively convey the intended meaning of the original English text with minor stylistic differences. The choice between them could be influenced by preferences for specific phrasing or clarity in legal language translation.

Example 3 Assignment Agreement

Source Text (ST):

Whereas First Party through arrangements with Spring Oil Company has the right and privilege to occupy and use a plot of land in Dahara Area (designated as) ofsquare Kilometers for setting up camp facilities for its activities in the area.

ChatGPT4

" بينما يمتلك الطرف الأول من خلال ترتيبات مع شركة سبرينغ للنفط الحق والامتياز في احتلال واستخدام قطعة أرض في منطقة الظهرة (المعينة ك.....) بمساحة كيلومتر مربع لإقامة مرافق المخيم لأنشطته في المنطقة

Google Translate

حيث أن الطرف الأول من خلال الترتيبات مع شركة سبرينج أويل لديه الحق والامتياز في شغل واستخدام قطعة أرض في منطقة الظهرة (المحددة ب.....) بمساحة كيلومتر مربع لإقامة مرافق المعسكر لأنشطته في المنطقة.

In the analysis of the translation performance between ChatGPT-4 and Google Translate, several key aspects can be highlighted:

Transliteration vs. Translation: The text indicates that ChatGPT-4 chose to transliterate the company name ("Spring") into Arabic (سبرينغ) rather than translating the meaning of the word. Google Translate did appear to transliterate company names in the example provided. This shows a different approach: ChatGPT-4 may prioritize keeping proper nouns recognizable to the audience, while Google Translate might aim for a direct transliteration.

23. Handling of Common Words and Phrases:

- The term "whereas" is typically translated as "بينما" by the ChatGPT-4 language model. This translation accurately conveys a sense of contrast. However, it is not always appropriate for legal contexts. In such situations, the translation offered by Google Translate, "حيث أن," is more fitting. This phrase better aligns with the specific legal terminology required in such contexts.
- **"has":** ChatGPT-4 used "احتلال- يمتلك", which seems incorrect as "احتلال" means "occupy" or "occupation" which is wrong and inappropriate in this context. Google Translate correctly used "الديه", which means "has". **Occupy" again,** ChatGPT-4 incorrectly used "احتلال" linked with "has", showing a misunderstanding. Google Translate accurately translated it to "شغل", a proper translation for "occupy" in many contexts.

Place Names: The text mentions that Google Translate correctly translated the name of the area "الظهرة". Where ChatGPT-4 failed to handle it.

Missing Translations: It's noted that Google Translate failed to translate "oil" into Arabic equivalent ("النفط").

Example 4

تفید كلية: _____ جامعة طرابلس بان السيد :
تاريخ الميلاد: / / م، قد تحصل على
درجة الإجازة الدقيقة (الدكتوراه) في تخصص: _____
من قسم بتاريخ: / / 20.
بكل ما لهذه الدرجة من حقوق وامتیازات
أعطيت هذه الإفادة لاستعمالها فيما لا يتعارض مع القوانين

ChatGPT4

The certificate from the College of _____ at the University of Tripoli states that Mr./Ms. _____, born on // __, has obtained the degree of Doctorate in _____, specializing in _____ from the Department of _____ on // __ 20. With all the rights and privileges conferred by this degree.

This certificate is issued for use in accordance with the law.

Google Translate

_____ University of Tripoli reports that Mr.:
_____ Date of birth: / / AD, may obtain the exact degree (PhD) in _____ specialty: _____ from the Department of _____ on: / / 20.
With all this degree of rights and privileges
This statement was given for use in a manner that does not conflict with the laws

24. ChatGPT's Translation:

- **Accuracy:** This Translation is entirely accurate. It maintains the formal tone and structure of the original Arabic text, including all

relevant details like the degree, specialization, department, and conferral date.

- **Completeness:** It includes all elements from the Arabic version and specifies the degree as a "Doctorate," which matches the original implication of "الإجازة الدقيقة."
- **Clarity:** The Translation is straightforward and can be understood by an English-speaking audience like the original.

25. Google Translate's Translation:

- **Accuracy:** The Translation is somewhat accurate but less formal. The phrase "may obtain" suggests uncertainty, which is likely a mistranslation of the definitive conferral of the degree.
- **Completeness:** Similar to the ChatGPT translation, it captures all critical information but with some awkward phrasing ("with all this degree of rights and privileges" is less clear).
- **Clarity:** This version could be more transparent due to awkward phrasing and some grammatical inaccuracies, which could confuse readers about the certainty and nature of the degree conferred.

24. Comparison and Conclusion:

- **ChatGPT's Translation** is superior in accuracy, clarity, and adherence to the formal tone expected in such documents. It correctly translates the definitive nature of the degree conferral and maintains the dignity and formality of the original document.
- **While generally accurate, Google Translate's Translation** introduces elements of uncertainty and is less clear and formally appropriate, which could be misleading or confusing.

Example 5- Contract

تسرى التعهدات سابقة الذكر و شروط هذا العقد على ورثة الطرفين المتعاقدين و من يؤول اليهم بطريق الهبة، و ما ينوب عنهما، و يخلفونهما و يتنازلان اليهما فيما عدا ما ينص عليه في هذا العقد خلافا لذلك.

25.ChatGPT4's Translation

The aforementioned commitments and conditions of this contract apply to the heirs of both parties, those who inherit from them by gift, their representatives, and successors, and to whom they transfer their rights, except as otherwise specified in this contract.

26.Google Translate's Translation

The aforementioned undertakings and the terms of this contract apply to the heirs of the contracting parties and those to whom it devolves by way of gift, and their representatives, and they succeed them and assign to them, except for what is otherwise stipulated in this contract.

When comparing the translations of the Arabic text provided by ChatGPT and Google Translate, several aspects can be considered in terms of accuracy, clarity, and fluency.

1. **Accuracy:** Both translations convey the legal implications of the original text, which pertains to the binding nature of the contract's terms on the heirs and representatives of the parties involved. Both correctly identify the stakeholders mentioned: heirs, those who inherit by gift, and successors.

2. **Clarity:**

- **ChatGPT's Translation:** It is straightforward and uses terms like "heirs," "inherit from them by gift," "representatives," and "successors," which are commonly understood in legal contexts. The

phrase "to whom they transfer their rights" clearly states the transfer of contractual rights.

- **Google Translate's Translation:** This version is also clear but slightly more verbose with phrases like "those to whom it devolves by way of gift" and "they succeed them and assign to them." Using "devolves" and repeating "succeed them and assign to them" might make it more cumbersome for readers unfamiliar with legal diction.

27. Fluency:

- **ChatGPT's Translation:** The translation flows well and sounds natural in English. It succinctly captures the essence of the legal stipulations without redundant phrasing.
- **Google Translate's Translation:** While accurate and precise, fluency is slightly affected by the more complex constructions, such as "devolves by way of gift" and the repetitive structure towards the end.

Legal Precision: Both translations appropriately handle the legal terminology, which is crucial for the document's intended purpose. However, ChatGPT's version might be preferred for formal use due to its concise and clear wording. Both translations are competent, but ChatGPT's version may be slightly more accessible and easier to integrate into formal documents due to its straightforwardness and conciseness.

28. Discussion and Findings:

Upon performing a comparative analysis between ChatGPT-4 and Google Translate, we have gained invaluable insights into the strengths and limitations of these two translation tools when handling specialized Arabic legal texts. Our findings highlight the importance of considering the nuances of language and context when utilizing machine translation software, mainly when dealing with

complex legal terminology. These insights can be leveraged to optimize the accuracy and reliability of machine translation tools in the legal domain and improve cross-border legal communication's overall efficiency. Firstly, ChatGPT-4 and Google Translate display high accuracy in legal terminology. While Google Translate occasionally offers multiple translations for a single term, ChatGPT-4 generally uses a consistent translation, which promotes clarity and consistency in legal documents. Secondly, both tools demonstrate proficiency in handling legal Arabic's structural and grammatical aspects. Google Translate, however, has the added advantage of introducing additional formal elements that enhance the perceived legality and formality of the text. Thirdly, Google Translate's contextual accuracy is evident in its ability to translate phrases that involve legal conditions or implications. At the same time, ChatGPT-4 sometimes displays limitations in context-specific translations, particularly in nuanced legal language. Fourthly, ChatGPT -4's preference for transliteration for names and technical terms maintains recognition and familiarity for the reader, while Google Translate varies in its approach. This can be particularly significant in legal documents where identifying entities like companies and geographical locations is crucial. Lastly, ChatGPT -4's adherence to the conventions of English legal documents in its translations makes it more suitable for English-speaking legal contexts due to its structured and formal language use. Google Translate's translations, while accurate, sometimes deviate from the formal tone expected in such documents, which might affect the perceived authenticity or credibility of the translation in formal settings. Now it is time to answer the research question:

- Would it be advisable to utilize ChatGPT4 and Google Translate to translate legal English documents into Arabic and vice versa?

Using ChatGPT4 and Google Translate to translate legal documents between English and Arabic can be a helpful first step. However,

several vital factors must be considered when relying on machine-generated translations.

- **Accuracy and Nuance:** Legal language is particular and nuanced, with terms and concepts that may not have direct equivalents in another language. Both ChatGPT and Google Translate may only sometimes capture these nuances accurately, which could lead to misinterpretations.
- **Context Sensitivity:** Legal documents often involve context-specific language that automated tools might struggle to interpret correctly. The meaning of terms varies depending on the context, and machine translation tools may not always handle this well.
- **Legal Consequences:** Any mistranslation or misinterpretation can have significant legal implications, such as misrepresenting the obligations, rights, or duties of the parties involved.
- **Verification by Professionals:** It is generally advisable to have translations done by qualified legal translators fluent in both the source and target languages and understand the legal systems involved. Machine-generated translations should be reviewed and verified by such professionals.

In summary, while ChatGPT and Google Translate can provide a rough translation of legal texts, they should not be solely relied upon for final legal translations. Seeking professional review and verification is always the best way to ensure accuracy and legality. Hence, it could be advisable to utilize ChatGPT4 and Google Translate to translate legal English documents into Arabic and vice versa when the developers use controlled language with its limit's vocabulary, grammar, and style to improve accuracy in machine translations.

Conclusion

The purpose of this inquiry is to comprehensively assess the reliability and accuracy of two translation software programs - ChatGPT 4 and Google Translate - when translating legal documents written in both English and Arabic. The researcher employed a range of legal documents in both languages to meticulously examine the precision and effectiveness of these tools. The inquiry aims to provide an in-depth understanding of these translation programs' strengths and limitations and offer insights for future improvements in this field. This investigation aims to evaluate the dependability and exactness of two translation programs - ChatGPT 4 and Google Translate - when translating legal documents written in English and Arabic. The researcher employed a series of legal documents in both languages to examine the precision of these tools. The study concluded that Google Translate often has an advantage in translating specialized terms across various languages because it is designed to handle a broad range of contexts and vocabularies from numerous sources, including legal documents. It uses machine learning models that are constantly updated with new data, which helps accurately translate complex terms and phrases according to the context. Adapting and learning from a vast corpus of texts often allows it to provide more precise translations, especially in specialized fields like law, where precise terminology is crucial. On the other hand, while ChatGPT also uses advanced machine learning techniques, its translations are part of a broader range of capabilities. They might not always match the specialized focus that dedicated translation tools can offer. However, ChatGPT can generate responses in a conversational context and handle various topics beyond translation, including engaging in dialogue, providing explanations, and more.

REFERENCES

- A.N. Ramesh, C. Kambhampati, J.R. Monson, P.J. Drew. (2004). Artificial intelligence in medicine. *Ann. R. Coll. Surg. Engl.*, 86(5): 334. John Benjamins.
- Alcaraz Varb, Enrique and Brian, H. (2002). Translation practices explained, legal translation explained. Manchester, St. Jerome, pp.5.
- Alkathery, E.R. (2023). Google Translate Errors in Legal Texts: Machine Translation Quality Assessment. *Arab World English Journal for Translation & Literary Studies*, 7(1), 208-219. DOI: <http://dx.doi.org/10.24093/awejtls/vol7no1.16>.
- Almahasees, Z. (2021). Analysing English-Arabic Machine Translation: Google Translate, Microsoft Translator and Sakhr. Routledge. <https://doi.org/10.4324/9781003191018>.
- Alshater, M. (2022). Exploring the Role of Artificial Intelligence in Enhancing Academic Performance: A Case Study of ChatGPT. Available at SSRN: <https://ssrn.com/abstract=4312358> or <http://dx.doi.org/10.2139/ssrn.4312358>.
- Archer, J. (2002). Internationalisation, Technology and Translation. *Perspectives: Studies in Translatology*, 10(2), 87-117.
- Austermühl, F. (2001). *Electronic Tools for Translators*. Manchester: St Jerome Publishing, chapter 1.
- Balkan, L. (1992). Translation Tools. *META*, 37(3), 408-420.
- Benzayed, A. (2015). The Problematic Areas Encountered by Libyan Undergraduate Students in Translating Legal Documentary Texts. *Journal of Faculty of Arts, University of Tripoli*, (26), 21-42.

Benzayed, A. M. (2013). Difficulties in machine translating text from English into Arabic. *International Journal of Multidisciplinary Thought*, 3(4), 1-16. CD-ROM. ISSN: 2156-6992. UniversityPublications.net.

Farghal, M. & Shunnaq, A. (1992). Major problems in students' translations of English legal texts into Arabic. *Bable*, 38(4), 203-309.

Farhaty, E. H. (2008). Legal translation: Theory and practice. *Journal of the Saudi Association of Language and Translation*, 1(2).

Google Translate. (2018). Google translate languages. Retrieved from <https://translate.google.com/internet/about/languages/>.

Google Translate Blog. (2016). Ten years of Google translate.

Hijazi, B. (2013). Assessment of Google's Translation of Legal Texts. (Unpublished Master's Thesis). University of Petra, Amman, Jordan.

Hutchins, W.J. & Somers, H.L. (1992). An introduction to machine translation. London: Academic Press, Chapter 4, Basic Strategies.

Jabak, O. O. (2019). Assessment of Arabic-English translation produced by Google Translate. *International Journal of Linguistics, Literature and Translation (IJLLT)*, 2(4), 238-247.

Jowarder, M. I. (2023). The Influence of ChatGPT on Social Science Students: Insights Drawn from Undergraduate Students in the United States. *Indonesian Journal of Innovation and Applied Sciences (IJIAS)*, 3(2), 194-200. <https://doi.org/10.47540/ijias.v3i2.878>.

Kaji, H. (1999). Controlled Languages for Machine Translation: State of the Art. *Proceedings of MT Summit VII, Singapore*, 37-39.

Lehrberger, J. & Bourbeau, L. (1988). *Machine Translation: Linguistic Characteristics of MT Systems and General Methodology of Evaluation*. Amsterdam: John Benjamins.

Microsoft. (2018). *Artificial Intelligence: Microsoft Practice Development Playbook*. Microsoft Press. <https://partner.microsoft.com/en-us/campaigns/cloud-practice-playbooks-rename>.

Mohammad Al Shehab. (2013). The Translatability of English Legal Sentences into Arabic by Using Google Translation. *International Journal of English Language and Linguistics Research*, 1(3), 18-31.

Newmark, P. (1981). *Approaches to Translation*. New York: Pergamon.

Newmark, P. (1988). *A Textbook of Translation*. London: Longman.

Newmark, Peter. "The Translation of Authoritative Statements: A Discussion." *Meta* 27, no. 4 (1982): 375-391.

Pugh, J. (1992). The Story so Far: An Evaluation of Machine Translation in the World Today. In J. Newton (Ed.), *Computers in Translation: A Practical Appraisal*. London: Routledge, 14-31.

Sager, J.C. (1994). *Language Engineering and Translation: Consequences of Automation*. Amsterdam: John Benjamins.

Somers, H.L., ed. (2003). *Computers and Translation: A Translator's Guide*.

Moneus, A. M., & Sahari, Y. (2024). *Artificial intelligence and human translation: A contrastive study based on legal texts*. Heliyon, Published by Elsevier Ltd. <https://www.cell.com/heliyon/home>