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| RESEARCH ARTICLE

AI vs. Human Translators: Navigating the Complex World of Religious Texts and Cultural Sensitivity.

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| ABSTRACT

This article explores the growing landscape of machine and AI-powered translation, explicitly focusing on religious text translation. The objective is to assess how AI-powered translation tools, such as ChatGPT and Google Translate, can replace human translation in handling complex religious content. The analysis considers word choice, word count, readability, and overall translation quality. This article uses qualitative and comparative data analysis to evaluate translations of seven English to Arabic religious texts by ChatGPT, Google Translate, and human translators. The texts were chosen randomly in different religious contexts, and a systematic coding framework was employed. Through Nvivo software, we examined word placement, vocabulary diversity, fluency, and accuracy. The analysis concludes that ChatGPT and Google Translate provide fairly accurate translations, yet the quality is questioned. Human translation consistently outperforms machine translations, maintaining depth, cultural relevance, and nuanced understanding. Word count analysis shows that machine translations are more concise and missing significant elements. While AI-powered translation tools have made significant advancements, they still need to be capable of entirely replacing human expertise, especially in handling complex and culturally rich texts. Human translators continue to excel in conveying complex ideas and preserving the richness of language and culture.

| KEYWORDS

AI vs. Human Translators; Religious Texts; Cultural Sensitivity; AI-powered translation

| ARTICLE INFORMATION

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1. Introduction

In our modern, interconnected world, translation has paramount importance and significance. As borders disappear between societies and cultures and as the web links people from diverse linguistic backgrounds, the ability to convey ideas, sell a product, call for action, or convince a group to become an easy ride. The task has even become simple as MTs provide translation of significant texts in the blink of an eye. The Translator's role diminishes in favor of machine translation in general and AI in specific. The market has seen overwhelming demand, knowing that Google Translation (Henceforth GT) serves 500 million users daily (Lim, 2023). The developing demand for translation services (Nicol, 2023) has targeted mainly the industries of "Website translation, healthcare translations, E-commerce translations, Finance translations, Legal services translations, Manufacturing industry translations, Business translations, E-learning programs/Online certifications, Media translations, Collaborations tools, Software translation and localization, Machine translations, and Marketing, advertising, and PR" This remarkable demand for translation services meets a new technological advent, artificial intelligence (AI), giving rise to powerful tools such as ChatGPT and GT. These translation models promise unprecedented speed, efficiency, and accessibility.

However, as we experience this new linguistic advancement, a fundamental question arises: Can AI-powered translation replace human translation? How accurate are the translations when AI is challenged with religious texts? While AI offers unprecedented capabilities, it also sets challenges that must be carefully studied. Challenges include how AI can humanize the translation to mimic the results that consider cultural sensitivity, ideological specificity, and language nuances. Hence, this study aims to challenge and compare three translations of seven religious texts regarding structure, word choice, word count, readability, and overall translation quality.

2. The Rise of AI in Translation

It was in the early 2000s that machine translation emerged, doing basic essential translation, and it is an aspect of computer science that focuses on developing tools and solutions (Reddy, 2022). MT has evolved throughout time and provided several types, including:

2.1 Rule-based machine translation (RBMT)

MTs, at their start, relied on voluminous, predetermined linguistic rules that helped the tool to transfer meaning from L1 to L2. It was known to have needed to be more varied in quality, often producing translations that neglected the language nuances and required manual addition of massive post-editing work.

Practically, RBMT requires (summalinguae, 2021):

- A dictionary that will map each English word to a corresponding Arabic word.
- Rules representing regular English sentence structure.
- Rules representing regular Arabic sentence structure.

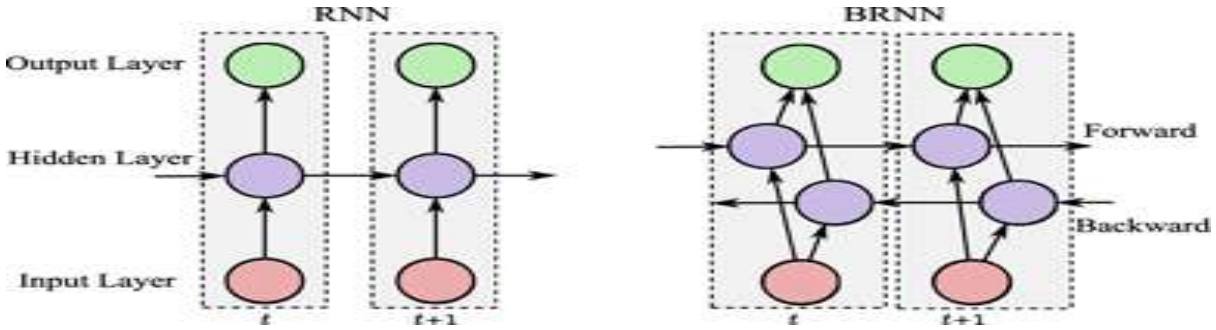
2.2 Statistical machine translation (SMT)

SMT has witnessed some advancement compared to RBMT. The SMT builds a statistical model of a text's relationship between words, phrases, and sentences based on sizeable bilingual corpora. SMT is a phrase-based system that uses the data collected from bilingual translations. When a sentence is introduced in an SMT that says, 'Version 2.1,' a comprehensive analysis of the phrase is searched in the monolingual English corpora, then compared to the bilingual English-Arabic corpora to find the most accurate translation "الإصدار رقم 2.1" Hence, the more accurate data the SMT is fed, the better the results.

2.3 Neural Machine Translation (NMT)

Neural MT, also known as deep learning (Deepl), differs and outstands because it "learns" languages and accumulates knowledge much like the human brain's neuro system, hence the name. NMT is based on a vector encoder and decoder. The encoder transforms the ST in L1 into a fixed-length vector or matrix – a language a computer can understand- or, otherwise, a context that captures the meaning. In return, the decoder grasps the meaning and generates the translated L2. Depending on the length of the sentence, NMT, using Recurrent Neural Networks RNN, will examine past words in one sentence sequentially. For example, to translate the 10th word in an Arabic sentence, NMT based on RNN will read the preceding nine words, making it very effective in short sentences and vulnerable in longer ones, Hence the Bidirectional Recurrent Neural Networks (BRNN). When combined with Deepl, this approach provides astonishing results, knowing that it goes in both directions while looking for the translation equivalent of a word from L1 to L2.

Fig 1: RNN VS. BRNN



(Geetika Singla et al., 2010)

3. Methodology:

Qualitative data analysis is the systematic and intricate process that transforms vast amounts of textual or visual information into meaningful insights. As the volume of qualitative data grows, robust analysis techniques become paramount. The paper explores the translation quality outcome by comparing the translation of seven English to Arabic religious texts translated by GPT 3.5, GT, and human translation.

To facilitate this exploration, a systematic coding framework has been developed. Coding, a fundamental component of qualitative analysis, involves categorizing the data segments to identify the themes and underlying patterns. To facilitate this exploration, Nvivo software did the coding task to help with the analysis. An in-depth examination of translation comparison in terms of word count to ultimately evaluate the overall quality, clarity, and nuances of the translated content.

The texts were randomly selected from various sources on the web. Their content belongs to the religious field for its complexity and connotative load. The aim is to challenge MTs to translate texts with cultural and religious terms and complex sentences. By employing an advanced computational tool alongside qualitative methods, this study strives to bridge the language gap, providing nuanced insights into the interconnectedness of cultures, clarity, and fluency.

4. Results and Discussion:

4.1 Examples of mistranslation or meaning loss.

In this section, we delve into the intricacies of lengthy sentences by comparing their structures and nuances across the translations provided by ChatGPT, GT, and the human translation with the sources. Consider the source text about Eid-ul-Fitr, text 1.

"Eid al-Fitr (Arabic: "Festival of Breaking Fast"), also spelled ʿĪd al-Fiṭr, also called al-ʿĪd al-Ṣaghīr, Turkish Ramazan Bayramı ("Ramadan Festival"), first of two canonical festivals of Islam." (Britannica, 2023)

Chat GPT:

عيد الفطر، (بالعربية: عيد الفطر)، وتكتب أيضًا عيد الفطر، ويُطلق عليه أيضًا عيد الصغير، هو أول العيدين الكانونيين في الإسلام. يأتي عيد الفطر في نهاية شهر رمضان، الشهر المقدس للصيام في الإسلام، ويحتفل به خلال الأيام الثلاثة الأولى من شوال، الشهر العاشر في التقويم الهجري الإسلامي (على الرغم من أن استخدام المسلمين للتقويم القمري يعني أنه قد يحدث في أي موسم من السنة).

GT:

عيد الفطر (العربية: "مهرجان الإفطار") مكتوب أيضًا عيد الفطر، ويُسمى أيضًا العيد الصغير، رمضان بيرامي ("مهرجان رمضان") بالتركية، وهو أول مهرجانين قانونيين في الإسلام. يصادف عيد الفطر نهاية شهر رمضان، شهر الصيام المقدس لدى المسلمين، ويتم الاحتفال به خلال الأيام الثلاثة الأولى من شوال، الشهر العاشر من التقويم الإسلامي (على الرغم من أن استخدام المسلمين للتقويم القمري يعني أنه قد يقع في أي موسم من السنة).

Human:

عيد الفطر، ويعرف أيضا بـالعيد الصغير، وفي تركيا يسمى بعيد رمضان. هو أول الأعياد الدينية عند المسلمين، ويأتي في نهاية شهر الصيام، شهر رمضان. يحتفل المسلمون بعيد الفطر خلال الأيام الثلاثة الأولى من شهر شوال. وهو الشهر العاشر ضمن التقويم الإسلامي. وللعلم، فإن المسلمين يعتمدون تقويما قمريا مما يعني أن رمضان قد يأتي في فصل مختلف من سنة إلى أخرى.

The evaluation focuses on the three translations provided by ChatGPT, GT, and human translation. It observes these translations' fluency, quality, and accuracy compared to the original meaning.

ChatGPT's translation ensures fidelity to the source, maintaining the Arabic words. The translation is fluent, demonstrating a nuanced understanding of the context while preserving the original words. GT's rendition, in this case, proves to be more word-for-word repetitive and mistranslates essential elements in the source text. In translating 'canonical,' GT opts for the wors 'قانوني,' which back translates to 'legal.' Gt's translation could be back-translated to 'one of the legal festivals' while the source text means 'first religious feast.' This mistranslation would blur the meaning for a reader with no Islamic religious background. Human translation is contextually relevant and rich. The translator takes the liberty to change the wording position, sentence length, and punctuation to suit the grammatical and linguistic structure of the Arabic language and avoids mistranslations that would blur the meaning.

The faithful representation of the original words is significant. ChatGPT excels in this regard, preserving the Arabic words while ensuring readability in English. It balances faithfulness and clarity, capturing the source's essence without compromising its integrity. GT needs to improve accuracy, omitting essential Arabic words and phrases and mistranslating primary information.

Consider another example from a short but religiously loaded source text:

"In Buddhism, Nirvana isn't a place reached through death, but a state achieved through enlightenment, which can sometimes take multiple reincarnations." (Murphy, 2016)

ChatGPT:
تجسيدات في البوذية، النِرْوَانا ليست مكانًا يتم الوصول إليه من خلال الموت، بل هي حالة يتم تحقيقها من خلال التنوير، والذي قد يستغرق أحيانًا. متعددة.

GT
في البوذية، النيرفانا ليست مكانًا يتم الوصول إليه من خلال الموت، ولكنها بدلاً من ذلك حالة يتم تحقيقها من خلال التنوير، والتي يمكن أن تأخذ في بعض الأحيان تناسخات متعددة.

Human
ليست النرفانا في البوذية تلك المرحلة التي يصلها الانسان بعد الموت، ولكنها مكانة يصلها عبر التنوير والتي تأخد أحيانا تجسيدات متعددة.

This analysis delves into the translation of the specific Buddhist concept. ChatGPT maintains fidelity to the original, ensuring clarity and accuracy in the translation. In terms of readability, ChatGPT does an excellent job. GT, too, provides a good result translating reincarnation as تناسخ instead of تجسيدات, which ChatGPT and Human translation opt for. Both Arabic terms are used interchangeably in some sources online. While Context Reverso and Almaany dictionary translate incarnation as تناسخ, other sources use التجسيد او إعادة التجسيد. In This case, the issue lies in unifying Arabic terminology rather than the Mt's ability. Human Translation, on the other hand, ensures detailed clarity, capturing the concept's depth fluently by taking the liberty to meaningfully translate the concept and break the shackles of word-for-word translation.

ChatGPT and GT maintain a delicate balance between accuracy, fluency, and depth of meaning, capturing and delivering the meaning's essence. Human translation offers a comprehensive understanding by sacrificing some original phrasing structure. Both MTs emerge as reliable tools for preserving complex concepts' essence while ensuring quality translation in this relatively shorter but complex sentence.

The following table provides an extensive analysis and comparison of the translation of seven texts. The aim is to find significant meaning loss and linguistic or structure issues.

Table 1:

Sources	**ChatGPT Translation**	**GT**	**Human Translation**
Source 1 -	عيد الفطر، (بالعربية: عيد الفطر)، وتكتب أيضًا عيد الفطر، ويُطلق عليه أيضًا عيد الصغير.	مكتوب أيضًا عيد الفطر	Not Observed.
		كما هو الحال في عيد الإسلام المقدس الآخر، عيد الأضحى	
	يتميز بأداء الصلاة الجماعية (الصلاة)		
With a word count of 108 words, no mistranslation or meaning loss is observed in human translation. ChatGPT, however, is observed to be repetitive of some words (الفطر - الصلاة), neglecting the essence of the sentence. GT, however, avoids repetition in this sample but misses the correct grammatical structure of the Arabic language. On the other hand, human translation is the one that delivers the nuances of the meaning, avoids repetition, and considers the Arabic linguistic structure.			
Source 2	عيد الأضحى، (بالعربية: "عيد الأضحى") المكتوب أيضًا عيد الأضحى، ويُسمى أيضًا عيد القربان أو العيد	الثاني من اثنين عظيمين أعياد المسلمين.	Not Observed

	الكبير، وبالتركية"Kurban Bayram" ، هو الثاني من بين العيدين الكبيرين للمسلمين.	تقوم العائلات التي تستطيع التضحية بحيوان مقبول شعائريًا.	
	تقوم العائلات التي تستطيع بذبح حيوان مقبول طقوسيًا.		

This text is more extended, word count-wise, and deals with another religious occasion in the Muslim faith. Again, we observe the repetition of the word الأضحى in GPT. The repetition (Eid al-Adha (Arabic: "Festival of Sacrifice"), also spelled ʿĪd al-Aḍḥā) serves in the original as transliteration to help non-Arabic speakers read the word, respectively. The target text intended for Arabic readers may neglect this aspect. ChatGPT seems not to incorporate and "learn" this linguistic aspect -avoiding unneeded repetition- yet. Similarly, GT seems to deliver a severe grammatical mistake in الثاني من عظيمين أعياد المسلمين, which is a literal translation of ''the second of two great Muslim festivals.'' Human translation excels one more time, incorporating accuracy and readability.

Source 3 –	لمدة حوالي ست وعشرين ساعة – منذ بضع دقائق قبل غروب الشمس في 9 تشري (24 سبتمبر) حتى بعد غروب الشمس في 10 تشري (25 سبتمبر).	طوال ما يقرب من ست وعشرين ساعة – من عدة دقائق قبل غروب الشمس في 9 تشري (24 سبتمبر) إلى بعد حلول الظلام في 10 تشري (25 سبتمبر).	Not Observed
	نمتنع عن تناول الطعام والشراب، "نحن "نذل أنفسنا ولا نغسل أجسادنا أو ندهنها، ولا نرتدي الأحذية المصنوعة من الجلد، ونمتنع عن العلاقات الزوجية. بدلاً من ذلك، نقضي وقتنا في الصلاة إلى الله	"نؤذي نفوسنا": نمتنع عن الطعام والشراب، ولا نغتسل أو نستحم. ادهن أجسادنا، ولا تلبس الأحذية الجلدية، وامتنع عن العلاقات الزوجية. وبدلاً من ذلك نقضي وقتنا في الصلاة إلى الله	

Both ChatGPT and GT provided inaccurate translations of this complex sentence: ''For nearly twenty-six hours—from several minutes before sunset on 9 Tishrei (Sept. 24) to after nightfall on 10 Tishrei (Sept. 25)'' causing a critical meaning loss. Human translation, however, captures the meaning of the original and reformulates the sentence:

يمتد الصيام لما يربو على ستة وعشرين ساعة، وذلك بضع دقائق قبل غروب شمس التاسع من شهر تشري الموافق لـ 24 شتنبر إلى حلول ليل العاشر من تشري الموافق لـ 25 شتنبر

Source 4 –	ثيمات ولاهوت السبت	*A. موضوعات السبت واللاهوت*	ثيمات ولاهوت عيد الشابات.

The sentence text's title, "Shabbat Themes and Theology," is rendered by human Translation as :
ثيمات ولاهوت عيد الشابات

The translator inserted the word 'Eid' and opted for the transliteration of Shabat. This keeps the religious load of the word and puts the reader in context.

Source 5 –	كان له تأثير عميق وطويل الأمد على **تحقيق التعليم**	وكان لتوزيع المدارس التبشيرية المسيحية، والتي شكل الكثير منها أساس قطاع التعليم في أفريقيا المستقلة، تأثير عميق وطويل الأمد على **التحصيل التعليمي**	Not Observed

	هذه أنماط الاستثمار التعليمي خلال الفترة الاستعمارية أدت، في اعتقادي، إلى ظهور الفجوة التعليمية بين المسلمين والمسيحيين	أعتقد أن هذه الأنماط من الاستثمار التعليمي خلال الفترة الاستعمارية أدت إلى ظهور فجوة التعليم بين المسلمين والمسيحيين	
With a count word of 89 and complex text, GT significantly delivers a more human-like translation when modifying a nominal sentence to a verbal one, just like the provided human translation: . وأعتقد أن هذا النوع من الأنماط الاستثمارية في مجل التعليم ابان فترة الاستعمار أدت الى ظهور الفجوة التعليمية بين المسلمين والمسيح. However, both MTs provide the gist of the text's meaning, knowing that it is loaded with religious and historical details and is provided for the GT and ChatGPT without any pre-context.			
Source 6	Not Observed	Not Observed	Not Observed
The three translations have rendered the original without significant issues.			
Source 7	الهولوكوست أم الشواه؟	محرقة أم محرقة؟	Not Observed
	تأتي كلمة "الهولوكوست	كلمة "الهولوكوست" تأتي من اللغة اليونانية القديمة	
The text's title provides two synonyms of the same term; one that is worldly used – the holocaust – and the other that carries religious connotation and relates to Hebrew representation, Shoah. GT in this sample misses the nuances of the religious and cultural words, offering one repeated translation, which is محرقة أم محرقة. It does not provide an alternative term for Shoah, which is significant in the title. ChatGPT, on the other hand, provides a borrowing technique translation for the holocaust and Shoah. This aligns with the original title, making it a more accurate translation. Human translation adds more context while translating 'Shoah' to 'catastrophe in Hebrew.' While GT provides an inaccurate translation of the title. Both Human translation and ChatGPT capture the original meaning and deliver it perfectly by: الهولوكوست أم الشواه؟ الهولوكوست أو الفاجعة بالعبرية Respectively, both translations incorporate the religious and cultural nuance of the term.			

We conclude that accuracy and linguistic nuances are two main problems. While GT and ChatGPT show common issues, such as occasional repetition and difficulties with complex sentences, GT is prone to producing more grammatical errors and literal translations. In contrast, ChatGPT's translations can sometimes become repetitive, potentially affecting readability. Human translation outperforms both tools, consistently delivering translations that maintain contextual and cultural nuances, ensuring precision and meaningful interpretations.

4.2 Word count analysis

Variations in the word count often signify the degree of elaboration or condensation applied during translation. Comparing the word counts in the translations to the source provides valuable insights into the translators' approach that allows for a comprehensive evaluation of the fidelity and richness of the interpretations. For instance, consider the source text: *Holocaust or Shoah? Which comprises* 77 words.

The differences in the word count among the translations indicate the variations in the level of detail, expressiveness, and conciseness in conveying the message that aligns with the original text. Chat GPT text provides complete and detailed information about the text that serves as the source of truth and offers the full context and the nuances of the content. The total word count for the Chat GPT and GT translation is 57 words, respectively. Both tools have provided a slightly condensed version of the original

text. Human translation is the most concise, having a word count of 50, indicating a skillful summarization of the content while retaining the essential meaning. Human translators can often convey complex ideas with brevity, ensuring accuracy.

The following table provides detailed statistics of word count in the translations:

Table 2:

	Eid-ul Fitr - Text 1	Eid-ul-adha – Text 2	Yom Kippur – Text 3	Education Text 4	Shabbat – Text 5	Nirvana – Text 6	Holocaust – Text 7
Source	130	193	125	132	108	23	77
ChatGPT	110	160	102	115	71	25	57
GT	106	159	102	122	71	30	57
Human Translation	109	168	105	104	72	21	50

The table suggests that human translation tends to be more consistent when compared to the GPT and GT. The table also shows that in 3 texts (2, 3, and 5), only human translation provides more words than GPT and GT. As shown in the samples, one can also observe that all translations provide less word count than the original, meaning that Arabic is a language of brevity. Moreover, both machine translations provide the same number of words in three translations (texts 3, 5, and 7).

4.3 Comparative Analysis of the Word Placement and Punctuation in the Translations

The following differences were observed when comparing the original text with the translations provided by the Chat GPT, GT, and Human translation.

ChatGPT:

"نمتنع عن تناول الطعام والشراب، ولا نغسل أجسادنا أو ندهنها، ولا نرتدي الأحذية المصنوعة من الجلد، ونمتنع عن العلاقات الزوجية. بدلاً من ذلك، نقضي وقتنا في الصلاة إلى الله".

GT:

"نمتنع عن الطعام والشراب، ولا نغتسل أو نستحم .ادهن أجسادنا، ولا تلبس الأحذية الجلدية، وامتنع عن العلاقات الزوجية .وبدلاً من ذلك، نقضي وقتنا في الصلاة إلى الله".

Human Translation:

"نحن 'نهذب أنفسنا 'من خلال الامتناع عن الأكل والشرب، ولا نغتسل ولا نعطر أجسادنا، ولا نرتدي الأحذية الجلدية، ونمتنع عن العلاقات الزوجية . بدلاً عن كل ذلك، نقضي وقتنا في الصلاة.

ChatGPT, GT, and human translation accurately use Arabic punctuation marks in the examples. However, the nuances lie in their approach to word placement and sentence structure. ChatGPT maintains a high fidelity to the original text, effectively retaining the original word order and sentence structure. It consistently uses the correct Arabic punctuation, ensuring the integrity of the sentences and the paragraphs. Although grammatically short, using the wrong subject pronoun twice, GT is also accurate punctuation-wise, rearranging the words and phrases, leading to subtle differences in word placement. In contrast, human translation strikes the balance between accuracy and readability by adjusting the word placement and the structure for clarity while staying true to the core meaning.

The following table provides a comprehensive comparison of each translation generated by the ChatGPT, GT, and human translators for seven different source texts on various topics such as Eid-ul-Fitr, Eid-ul-Adha, Yom Kippur, education, Shabbat, Nirvana, and the Holocaust. Each column in the table represents the different aspects of the translations: word count, sentence lengths, and vocabulary diversity.

Table 3:

Vocabulary diversity							
Source	Festival of Breaking Fast	Communal prayer	Yom Kippur	Sanctuary	Christian missionary schools	Enlightenment	Holocaust
Chat GPT	مهرجان الإفطار	الصلاة الجماعية	كيبور يوم	من ملجأ المتاعب	المدارس التبشيرية المسيحية	التنوير	الهولوكوست
GT	مهرجان الإفطار	الصلاة الجماعية	الغفران يوم	من ملاذ المتاعب	المدارس التبشيرية المسيحية	التنوير	المحرقة
Human	الصغير العيد	العيد صلاة	كيبور يوم	نسيان المتاعب	مدارس البعثات المسيحية	التنوير	الهولوكوست

Regarding vocabulary diversity, human translators consistently demonstrate a deep understanding of the source texts by utilizing a varied and contextually appropriate vocabulary. ChatGPT, trained on a vast dataset, also produces a diverse and accurate vocabulary, albeit with the occasional inconsistencies. GT sometimes lacks precision in vocabulary choice, which leads to less accurate translations. In terms of sentence lengths, both ChatGPT and GT generally maintain a mix of short and medium-length sentences. At the same time, human translators tend to produce short and long sentences that capture the nuances of the source text more effectively.

4.4 Comparing the fluency, accuracy, and quality of translations:

Table 2 compares the translations of ChatGPT, GT, and the human for seven sources. In all the cases, ChatGPT's translations are noted as accurate, fluent, and well-structured translation. They exhibit a human-like quality with a natural flow, making them the preferred choice overall. While accurate, GT occasionally needs more nuanced and natural phrasing in human-like translations. Human translations consistently demonstrate accuracy and detailed explanations, often using formal language when appropriate.

Table 4:

Sources	**ChatGPT Translation**	**GT**	**Human Translation**	**Combined (Fluency, Quality, and Accuracy)**
Text 1	Accurate and Fluent, repetitive, High-quality vocabulary was used.	Accurate but less nuanced.	Accurate and detailed translation.	ChatGPT (More Human-like quality)
Text 2	Generally accurate and Fluent translation.	Accurate, but the phrasing is slightly awkward.	Accurate and well-expressed translation.	ChatGPT (More Human-like quality)
Text 3	Accurate and Fluent. The clear and coherent language used.	Accurate, with some minor grammatical mistakes.	Accurate and well-expressed.	ChatGPT (More Human-like quality)
Text 4	Accurate and Fluent. Readable language.	Accurate but lacks the natural flow.	Accurate and culturally well-appropriate.	ChatGPT (More Human-like quality)
Text 5	Accurate and well-structured sentences.	Accurate with minor mistakes.	Accurate and well-phrased sentences.	ChatGPT (More Human-like quality)
Text 6	Accurate, Fluent, clear, and concise language.	Accurate, but it sounds less natural.	Accurate and straightforward text.	ChatGPT (More Human-like quality)
Text 7	Accurate but slightly formal and Detailed explanation.	Accurate with a formal tone.	Accurate and detailed explanation.	Human Translation (High quality)

ChatGPT's translations are highlighted as superior due to their human-like quality, which captures not only the accuracy of the content but also the nuances of the language and cultural context. While GT provides accurate translations, it lacks the natural flow and depth often found in human-like translations. Human translations, particularly in the case of Source 7, stand out for their formal tone and detailed explanations. The word 'Shoah,' a Hebrew word transliterated into Latin letters that means catastrophe, is rendered using mouth translation by ChatGPT, emphasizing its Hebrew aspect. GT translates it as محرقةrepeating the same word in the title twice. The human translation seems to be the only one that fathoms the title's religious and cultural load, translating 'Shoah' into 'catastrophe' while adding the explanation 'in Hebrew,' putting the reader in the needed context.

4.5 Discussion:

The analysis highlights the following results:

Challenges in Machine Translation: Generally speaking, GT needs help to render the accurate grammatical structure of the Arabic language in many samples. Both MTs confronted difficulties preserving linguistic nuances when handling culturally and religiously loaded texts. Repetition is also observed in ChatGPT and Google Translate, potentially impacting readability.

Human Translation Superiority: Human translation outperforms both tools regarding the original text's depth and accuracy. Human translation is better at preserving cultural and contextual nuances, offering concise yet meaningful translations, and effectively conveying complex ideas.

Word Count Analysis: Word count analysis reveals that machine translations provide more condensed versions of the original content. In contrast, human translations balance conciseness and maintain essential meaning. The analysis notes that Arabic is a language of brevity, reflected in the translation word counts.

Potential and Limitations of AI: AI-driven translation technologies have advanced and can be valuable for more straightforward content in general texts and effective for short sentences of more complex texts. However, it delivers an acceptable translation that preserves the core meaning of the source text. While they have not yet reached the point where they can fully replace human expertise but, with some post-editing, it could be considered translators' best companion.

To sum up, human translation's presence in handling complex religious sentences is unquestionable. While GT and GPT have their merits, performing pretty well in short sentences and delivering quite understandable content, they still face challenges replicating some words' Arabic grammatical structure and cultural nuances. The future of AI in translation holds promise, but it is clear that human expertise remains indispensable in the field of translation.

5. Limitations of the Study:

Although MT and AI translations have proven to be very useful, this study has limitations and challenges that can be addressed through some studies that we can propose. This study, in particular, is qualitative, counting on 7 sample texts. They might not be significant compared to the rich Arabic spectrum in text genre and styles. Other research, probably institutionally guided and financed, could be directed catering to more extensive and more diverse data with multiple Ais. The depth and quality of translation assessment could be objective, departing from the principle that human assessment continuously varies. Hence, what could be acceptable from a researcher might be lame or perfect for another. Hence, future research could account for multiple evaluators to address this limitation. Thirdly, ChatGPT and GT are continuously evolving and learning. The tools' performance and translation quality may change over time.

6. Conclusion

In summary, as explored in this analysis, the rise of AI in translation has witnessed significant advancements in the field, evolving from RBMT to cutting-edge NMT approaches. These developments have paved the way for producing highly acceptable translations, especially in general and repetitive texts.

Our analysis of religious text translation highlights some challenges both translation tools must work on. Both machine translation systems struggle with maintaining linguistic nuances, context, and complex sentence structures, especially prominent in religious and culturally rich texts.

In all of the samples provided, Human translation consistently outperforms machine translations in preserving the original text's depth and meaning while ensuring cultural and contextual relevance. Human translators excel in conveying complex ideas with brevity, accuracy, and a nuanced understanding of the source text.

Word count analysis reveals that all machine translations tend to provide more condensed versions of the original content. The human translations offer a balance between concise communication and maintaining the essential meaning of the text. Undoubtedly, MT tools help handle straightforward content but still need help matching the depth and precision of human translators, especially in more complex and nuanced texts—the human expertise and background knowledge of the issue at hand mark the difference.

While MT proved to be an excellent tool for first-draft translations, it certainly holds exciting opportunities for the future of translation. AI-driven translation technologies continue to evolve and offer valuable support. However, they have yet to reach a level where they can fully replace human expertise and the art of translation. The future likely holds exciting possibilities for further advancements in machine translation. However, human translators remain essential for preserving the richness and nuances of language and culture in the translation process.

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