

RESEARCH ARTICLE

ARTIFICIAL INTELLIGENCE AND HUMAN TRANSLATION OF
SELECTED QUR'ANIC VERSES (ĀYĀT): A CONTRASTIVE STUDY OF
SEMANTIC AND INTERPRETATIVE ACCURACYAhmed Saeed Mater Salem^{1,*}¹ Dept. of English, Saber Faculty of Science and Education, University of Lahej, Lahej, Yemen.

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Abstract

Advanced Neural Machine Translation (NMT) has revolutionized cross-language communication. However, its extension to religious translation, particularly the Holy Qur'ān, involves challenges beyond linguistic transfer, encompassing deeper theological, cultural, and exegetical nuances. This study conducts a systematic contrastive analysis of AI-generated and human translations of nine verses (Āyāt) containing ten semantically complex and interpretively challenging terms, precisely selected Qur'anic verses (Āyāt), focusing on their lexical richness and semantic ambiguity. By comparing the ChatGPT and DeepL outputs with Dr. Mustafa Khattab's acclaimed human translation (The Clear Qur'an, 2001) and adopting Tafsīr Ibn Kathir as an interpretive reference point, this study measures translations along the lines of semantic fidelity, contextual richness, and interpretive depth. The findings of this study reveal that the capacity of AI tools to create linguistically competent outputs is matched by systemically weaker performance in expressing interpretive depth and theological intent and a tendency to fall back on literal or fallacious translations. Human translation, informed by learned tradition, outperforms AI in managing the complexity of Qur'ānic discourse. The study concludes by affirming the need for any future application of AI to religious text translation to adopt a domain-specific exegetical corpus with expert oversight.

Keywords: Artificial Intelligence Translation, Qur'anic Exegesis (Tafsīr), Semantic Fidelity, Interpretive Accuracy.

Introduction

The translation industry has been significantly transformed by the rapid growth of Artificial Intelligence (AI). Google Translate, ChatGPT, and DeepL versions of Neural Machine Translation (NMT) use rigorous algorithms and large databases to abbreviate time and focus on translating context sensitivity. It provides global communication at a more convenient and efficient level (Moneus and Sahari, 2024). Translating religious texts, such as the Holy Qur'an, is nevertheless a challenging assignment, in addition to language propriety.

Muslims perceive it as the literal word of Allah. It holds deep theological ideas, dense cultural milieus, and layers of meaning that remain underexplored. Its form, stylistics, and ancillary references require not only proper language proficiency but also in-depth knowledge of Usul al-Fiqh (principles of jurisprudence) and Tafsīr (exegesis). While AI software is capable of handling large datasets and producing informative translations within a short time span, it tends to fail while interpreting the subtle meaning of sacred texts. Recent studies have proposed solutions to this dilemma.

This is most evident in comparisons between AI productions and professional human translations, which employ religious, cultural, and linguistic experience in the translation task. Recent research has only recently

begun to examine machine translation's failure to handle culturally entrenched semantics in religious materials (Sadia & Aslam, 2019). However, the urgent research demand continues to be a systematic, comparative analysis of AI- and human-produced translations of passages from the Qur'ān (Āyāt), especially of the highly semantically rich terms that require intensive exegetical anchorage.

Undertaking a critical comparison of AI and human translations of a few selected Qur'anic verses (Āyāt), this paper focuses on words and phrases whose meanings are not immediately evident and require detailed explanatory interpretation. It compares the most advanced AI translations, that is, DeepL and ChatGPT, with Dr. Mustafa Khattab's trustworthy human translation, *The Clear Qur'an* (2001). While comparing, it discusses the strengths and weaknesses of the two approaches, particularly in handling complex and ambiguous Qur'anic terms. The conclusions seek to inform best practices in religious translation, the ethical application of AI in sensitive textual situations, and encourage interdisciplinary discussion on preserving the semantic, spiritual, and rhetorical integrity of sacred texts.

Objectives of the Study

This study aims to:

1. analyze the principal distinctions between AI-generated and human-translated interpretations of selected Qur'anic verses (Āyāt), focusing on lexically complex and semantically ambiguous terms that require exegetical interpretation.
2. Evaluate the efficacy of AI translations in preserving the semantic, contextual, and spiritual integrity of these ambiguous terms in direct comparison to human translations.

Research Questions

1. What are the principal distinctions between AI-generated and human-translated interpretations of selected Qur'anic verses (Āyāt), particularly concerning lexically complex and semantically ambiguous terms?
2. To what extent do AI translation models (ChatGPT and DeepL) accurately convey the intended exegetical meanings of Qur'anic texts, especially those with nuanced interpretations, compared with human translators?

Literature Review

The Challenge of Religious Translation

Religious translation is especially challenging because source materials are sacred, and their meaning is vital to religious communities. This article considers these challenges with specific reference to the Qur'an, drawing upon Naudé's pioneering work (2010). Antedating AI's large-scale deployment, Naudé's work is an unsurpassable framework for human-centered deliberations and is still valuable for defining AI's possibilities and limits when it comes to religious discourse.

Key Themes in Religious Translation

Naudé (2010) observes that religious translation has profound implications for the translatability of scripture, sacrality retention, and negotiation of cultural boundaries. It is neither solely a linguistic task nor a complicated process mediated by sociocultural, institutional and contextual determinants. One key observation is that efficient religious translation, while often theorized as a secular operation, is always a communally conducted operation by trained translators and religious scholars. The translator is always compelled to decide whether to narrow cultural differences to enhance readability or to maintain them to keep intact the sacred text's "otherness."

Religious translations are further goal-specific, and translators create source- or target-directed strategies to meet the needs of the receptors. This often demands shrewd accommodation to the receptor culture's cultural, linguistic, and literary norms. Naudé (2010) contends a descriptive approach to religious translation studies based on the translator's ideological stance, chosen strategies, and conditioning cultural conventions. He further asserts that a translator's cultural and religious sensibility, configured by their epistemology, hermeneutics, and spirituality, determinably shapes religious meaning transfer.

The Nature of Qur'an Translation

The Qur'anic translation is complicated by virtue of the religious belief that it is the literal, miraculous revelation (mu'jizah) by Allah in Arabic. This belief has traditionally restricted Islamic scholarship from embracing openness to translation, often prohibiting it out of concern for corruption or distortion of the sacred message. As Naudé (2010) observes, the translation of sacred texts is frequently regulated with strict controls on translators, source texts, and methods, particularly in traditions where the original language is considered divinely chosen and immutable. This contrasts with Christianity, whose historical trajectory has long embraced the translation of scriptures into vernacular languages, such as the Septuagint and Vulgate in Greek and Latin, respectively, and Martin Luther's German translation, facilitating broader access to religious knowledge.

Despite theological reservations, translations of the Qur'an have been rendered into numerous languages. Among the earliest were non-Muslim translations, notably those produced by Christian missionaries. English translations emerged in the 17th century, often mediated through French versions, with George Sale's direct Arabic-to-English translation appearing in 1734. Today, over 30 English translations by Muslim scholars are available; however, they are frequently regarded not as authoritative equivalents of the Arabic original but as interpretive commentaries (Tafsīr), reflecting the exegetical nature of Qur'anic translation and the enduring tension between linguistic fidelity and theological authenticity (Naudé, 2010).

Human vs. AI Translation in Religious Contexts

Although Naudé (2010) never makes any direct allusion to AI, these specified human aptitudes are crucial yardsticks for gauging AI's viability. Religious translation requires the highest cultural literacy, religious expertise, and intimate acquaintance with the socio-spiritual context of the receiving audiences. Human translators are compelled to mediate holiness at the textual phase, make strategic decisions about equivalence, and make interpretive judgments based on a religio-worldview.

These refined human capabilities exceed the current capacity of AI translation software. Although AI is very effective at data crunching and generating quick literal renderings and reproducing formal modes, it is incapable of interpreting metaphors, symbolic allusions, and doctrinal subtleties ingrained in scriptures such as the Qur'an. More to the point, AI lacks the subjective agency called upon by faith, communal expectation, and interpretive convention, which are crucial to overcoming the hermeneutical, spiritual, and cultural sophistication intrinsic to religious translation. Hence, while AI can become a useful assistant to preliminary linguistic work, it is yet unable to effect translation with genuine theological depth, historical richness and spiritual accountability.

AI Translation Technologies

Ongoing progress in AI, natural language processing, and machine learning has enabled the development of high-speed translation tools (Rahim, 2024). Models such as GPT-4, which can process and generate text based on immense datasets, provide increasingly contextual and accurate real-time translations (Moneus & Sahari, 2024; Vaswani et al., 2017). The demand for rapid and efficient translation has popularized free online tools such as Google Translate and DeepL, which prioritize convenience and speed over perfect quality (O'Hagan, 2016). This trend has redefined the translation landscape, even in professional contexts where computer-aided translation (CAT) tools are ubiquitous (O'Brien, 2012).

The emergence of large language models, such as ChatGPT (OpenAI, 2022), represents a significant leap. While these models demonstrate impressive performance across a range of tasks, they do not consistently outperform humans and remain prone to errors in specialized, nuanced domains, such as theological translation (Diaz, 2023; Moneus & Sahari, 2024).

Methodology

This study adopted an analytical-descriptive and comparative research design. A purposive sample of nine verses (Āyāt) containing ten semantically complex and interpretively challenging terms of Holy Qur’anic) were selected through a three-step process: (1) selecting verses (Āyāt) that bear words or expressions whose meanings are clear upon first reading but are found to bear meanings other than the apparent one upon reading Ibn Kathir’s Tafsīr or other major Sunni interpretations; (2) comparing such passages with Mustafa Khattab’s The Clear Qur’ān (2001); and (3) finalizing the list as nine verses (Āyāt) that are indicative of different types of ambiguity spread across many surahs.

Sample

Nine Qur’anic verses (Āyāt) were purposively selected according to their inclusion of polysemous words and phrases that need Tafsīr to interpret their meaning. Mustafa Khattab’s The Clear Qur’ān (2001) was used as the human benchmark of translation. Translations of the same verses (Āyāt) prepared using artificial intelligence were taken from the DeepL APA V2 and ChatGPT-3.5 free versions.

Study Validation

For corroboration, Tafsīr Ibn Kathir (1997) was taken as the primary exegetical reference to measure the accuracy of both human and AI-generated translations. The Tafsīr was selected owing to its scholarly precedence, universal affirmation, and veracity in interpreting Qur’anic meanings. This research was carried out with verses (Āyāt) where uncertain statements need exegetical referral for a clear understanding. All translations, both human and AI, were scored based on the Tafsīr of Ibn Kathir according to three criteria: (1) semantic accuracy, (2) contextual sensitivity, and (3) interpretative depth. These criteria led to a systematic analysis of human and AI translation competency and exposed the degree of AI tools’ capacity to grasp the subtle connotations of the Qur’an’s text.

Results and Discussion

This section presents a detailed analysis of the data collected. This analysis aims to identify prevailing translational norms by comparing AI-generated and human translations, assess whether these translations conform to the Tafsīr of Ibn Kathir, examine the influence of contextual factors on translation choices, and conduct a systematic comparative evaluation of the outputs. The following subsections report the results for each of the selected Qur’anic verses (Āyāt).

1. Verse 1: Āl ‘Imrān 3:152

﴿وَلَقَدْ صَدَقَكُمُ اللَّهُ وَعْدَهُ إِذْ تَحُسُّونَهُم بِإِذْنِهِ...﴾ [آل عمران: 152]

Tafsīr Baseline (Ibn Kathir)

Ibn Kathir’s Tafsīr: The term “تَحُسُّونَهُم” is interpreted as *killing them* and inflicting defeat upon them, and that was with the help of Allah.”

Translation Outputs

Translation Source	Rendering of term	Full rendering (relevant clause)
ChatGPT	“Killing them”	“when you were killing them by His permission...”
DeepL	“Charged them”	“when you charged them with His permission...”
Mustafa Khattab	“Swept them away”	“when you swept them away by His Will...”

As illustrated in the table above, ChatGPT's rendering of "killing them" demonstrates a high degree of semantic accuracy, closely aligned with the intended meaning in Tafsīr. In contrast, DeepL's translation is "charged them," which contextually suggests an attack, demonstrating lower precision, as it fails to convey the explicit notion of defeat or extermination that is central to the exegetical interpretation of this verse. Khattab's phrase "swept them away" reflects a dynamic equivalence strategy, effectively preserving the rhetorical and religious weight of the verse (Āyah) while conveying the concept of defeat in an idiomatic and stylistically elevated manner.

ChatGPT's rendering ("killing them") demonstrates high semantic accuracy, closely aligning with the exegetical meaning. DeepL's translation ("charged them") contextually implies an attack but it lacks the explicit connotation of a decisive defeat. Khattab's dynamic equivalent, "swept them away," effectively retains the rhetorical and theological force of the original in an idiomatic way.

2. Verse 2: Al-Hadid 57:20

﴿اعْلَمُوا أَنَّمَا الْحَيَاةُ الدُّنْيَا لَعِبٌ وَلَهُمْ زِينَةٌ وَتَفَاخُرٌ بَيْنَكُمْ وَتَكَاثُرٌ فِي الْأَمْوَالِ وَالْأَوْلَادِ كَمَثَلِ غَيْثٍ أَعْجَبَ الْكُفَّارَ نَبَأُهُ...﴾ [الحديد: 20]

Ibn Kathir's Tafsīr: The term "الكفار" is interpreted as "the *tillers*"

Translation Source	Rendering of term	Full rendering (relevant clause)
ChatGPT	disbelievers	"... like rain whose growth of vegetation amazes the disbelievers..."
DeepL	disbelievers	"... like rain whose vegetation delights the disbelievers..."
Mustafa Khattab	Planters	"...like rain that causes plants to grow ..."

As shown in the table above, both ChatGPT and DeepL failed in rendering the term (الكفار) in the previous verse (Āyah) as "disbelievers." Although this translation is linguistically accurate, it is contextually inappropriate. In contrast to this translation, Ibn Kathir's Tafsīr interprets (الكفار) as *tillers*, that is, laborers who work in agriculture, and marvel at the growth of plants after it rains. A literal translation, produced by ChatGPT and DeepL, risks imposing a confusing religious connotation that deviates from the intended exegetical meaning of this verse (Āya). In contrast, Mustafa Khattab's translation as "planters" more accurately reflects the intended exegetical interpretation, demonstrating greater sensitivity to both context and interpretive nuances than the translations produced by ChatGPT and DeepL.

3. Verse 3: Al-Isra 17:13

﴿وَكُلُّ إِنْسَانٍ لِّزَمَتِهِ لَظِيرُهُ فِي عُقْبِهِ...﴾ [الإسراء: 13]

Tafsīr Baseline (Ibn Kathir)

The expression "الزمناء طائره" is interpreted as: "We have made his deeds, whether good or bad, cling to him, and they will be counted against him." Thus, this interpretation suggests that طائره is metaphorical, referring to one's **deeds** and the resulting outcome, rather than a literal bird or an abstract notion of fate.

Translation Source	Rendering of term	Full rendering (relevant clause)
ChatGPT	destiny	"...We have fastened his destiny to his neck..."
DeepL	will be bound	will be bound
Mustafa Khattab	destiny	"...We have bound every human's destiny to their neck..."

As can be seen from the above table, DeepL's translation of طائره as "will be bound" changes meaning from that intended by the Qur. While suggesting that one's deeds will be irrevocably connected to himself (as per Ibn Kathir's Tafsīr), DeepL changes meaning such that it is translated to the one who will be bound. This translation adversely changes the theological connotation of personal accountability for one's deeds.

ChatGPT and Mustafa Khattab render طائره as "destiny." While such a rendering may serve to translate the idea of what occurs to one as a result of his or her actions, it moves in the direction of deterministic

understanding, one that posits something predetermined. Such an understanding risks stripping from Ibn Kathīr and other commentators emphasis on human will and on actions freely taken.

A translation that best remains faithful to Ibn Kathīr’s understanding is one which translates Tafsīr as “deeds.” This translation follows the exegetical tradition, which insists over and over again that it is one’s own deeds and their consequences that one brings to the Day of Judgment. A faithful translation would therefore be: “And every human being—We have made his deeds cling to his neck...” This choice not only leaves theology intact but also preserves literary effectiveness for the Qur’anic image such that it is through this verse that the meaning conceived by it of reckoning and moral responsibility is understood.

4. Verse 4: Al-Baqarah 2:20

﴿يَكَادُ الْبَرْقُ يَخْطَفُ أَبْصَرَهُمْ كُلَّمَا أَضَاءَ لَهُمْ مَشَوْا فِيهِ وَإِذَا أَظْلَمَ عَلَيْهِمْ قَامُوا وَلَوْ شَاءَ اللَّهُ لَذَهَبَ بِسَمْعِهِمْ وَأَبْصَرِهِمْ إِنَّ اللَّهَ عَلَىٰ كُلِّ شَيْءٍ قَدِيرٌ ﴿٢٠﴾﴾ [البقرة: 20]

Ibn Kathir’s Tafsīr: The term “قَامُوا” here means “they stood still in fear and hesitation,” not literally “they stood up.”

Translation Source	Rendering of term	Full rendering (relevant clause)
ChatGPT	walk therein	“...whenever it flashes for them, they walk therein, and when it darkens upon them, they stand...”
DeepL	walk therein	“...whenever it lights for them, they walk therein, and when darkness covers them, they stand...”
Mustafa Khattab	they stand still	“...whenever it flashes for them, they stand still, and when it darkens upon them, they are immobilized...”

As shown in the table, ChatGPT and DeepL translate قاموا literally as “walk therein,” which is grammatically correct but misses the interpretive nuance highlighted by Ibn Kathir. In this context, the verb conveys not mere movement but a state of psychological hesitancy and fear. Mustafa Khattab’s rendering, “they stand still,” aligns with Ibn Kathir’s Tafsīr, capturing the emotional and psychological state of the people described, and preserving the verse’s rhetorical and theological intent. Therefore, “they stand still in fear and hesitation” offers the most accurate translation, reflecting both the literal action and interpretive meaning.

5. Verse 5: Al-An'am 5:142

﴿وَمِنَ الْأَنْعَامِ حَمُولَةٌ وَفَرَسَاتٌ مِّمَّا رَزَقَكُمُ اللَّهُ وَلَا تَتَّبِعُوا خُطُوَاتِ الشَّيْطَانِ إِنَّهُ لَكُمْ عَدُوٌّ مُّبِينٌ ﴿١٤٢﴾﴾ [الأنعام: 142]

Ibn Kathir’s Tafsīr

The term “وَفَرَسَاتٌ” is explained as: "Among the livestock, some are for carrying burdens (ḥamūlah), and some are وَفَرَسَاتٌ those too small to carry loads, or those that are spread (used) for their wool, hides, or as sources of milk and meat.”

In other words, فَرَسَاتٌ does not mean “bedding” in a literal household sense but refers to smaller or non-load-bearing livestock, such as sheep and goats.

Translation Source	Rendering of term	Full rendering (relevant clause)
ChatGPT	For food	“...And of the grazing livestock are some for carrying burdens and some for food ...”
DeepL	bedding	“...And from the livestock, you have food and bedding ...”
Mustafa Khattab	too small	“...Some cattle are fit for labour, others are too small ...”

As shown in the table, ChatGPT renders فَرَسَاتٌ as “food,” which oversimplifies the meaning and misses the exegetical nuance in Ibn Kathir’s tafsīr. DeepL offers the literal “bedding,” which is lexically accurate but contextually inappropriate for the target text. Mustafa Khattab translates it as “others are too small,” which aligns closely with Ibn Kathir’s Tafsīr. This rendering highlights the contrast in the Qur’anic narrative between large beasts used for carrying burdens (ḥamūlah) and smaller livestock (فَرَسَاتٌ) raised for meat, milk, wool, or

hides that are not suitable for burdens. Thus, “small livestock not used for burdens” more accurately reflects the exegetical meaning, avoiding both ChatGPT’s simplification and DeepL’s misleading literalism, while preserving the rhetorical and semantic intent of the Qur’anic text itself.

6. Verse 6: [Tā-Hā: 18]

﴿قَالَ هِيَ عَصَايَ أَتَوَكَّؤُا عَلَيْهَا وَاهْتَسُّ بِهَا عَلٰى غَنَمِي وَلِي فِيهَا مَنَازِلُ أُخْرٰى﴾ [طه: 18]

Ibn Kathir’s Tafsīr

The phrase “وَاهْتَسُّ بِهَا عَلٰى غَنَمِي” is explained as: “I strike the tree with it so that its leaves fall, and my sheep eat them.”

Thus, اهتش, here means to shake down or beat down leaves, not to herd or strike the animals themselves.

Translation Source	Rendering of term	Full rendering (relevant clause)
ChatGPT	beat down leaves	“...and with it I beat down leaves for my sheep...”
DeepL	herd	“...and I use it to herd my sheep ...”
Mustafa Khattab	beat down branches	“...and with it I beat down ‘branches’ for my sheep...”

As indicated in the table above, ChatGPT renders اهتش as “beat down leaves for my sheep,” which aligns more closely with Ibn Kathir’s Tafsīr than DeepL’s “herd my sheep.” ChatGPT preserves the agricultural task described in the verse (Āya), where Moses uses his staff to knock leaves from trees so that the sheep can eat them. In contrast, DeepL’s “herd my sheep” shifts the meaning entirely. While herding is part of a shepherd’s work, it does not convey the specific actions highlighted by the exegetes, nor does it reflect the Qur’anic depiction of Moses’ interaction with his staff and the practical feeding of the sheep. Therefore, a Tafsīr-consistent translation is “beat down leaves for my sheep,” not “herd my sheep.” What is about Khattab’s translation?

7. Verses 7: [Ar-Rahmān 55:24]

﴿وَالَهُ الْجَوَارِ الْمُنشَآتُ فِي الْبَحْرِ كَالْأَعْلَامِ﴾ [الرحمن: 24]

Ibn Kathir’s Tafsīr

The terms are explained as follows:

“الْجَوَارِ الْمُنشَآتُ” → ships that sail through the sea, built or constructed with care.

“كَالْأَعْلَامِ” → like prominent markers or pillars, clearly visible from a distance.

The emphasis is on the careful construction of ships and their striking appearance at sea.

Translation Source	Rendering of term	Full rendering (relevant clause)
ChatGPT	mountains	“...And for Him are the ships [that sail] through the sea like mountains...”
DeepL	flags	“...And to Him belong the ships that sail through the sea like flags...”
Mustafa Khattab	mountains	“...And among His signs are the ships like mountains ‘sailing’ in the sea...”

As the table shows, both ChatGPT and Mustafa Khattab render كالأعلام as “mountains,” capturing the prominence and impressive size of the ships as they are observed at sea. This aligns with Ibn Kathir’s Tafsīr, which emphasizes the visibility and structural integrity of ships. In contrast, DeepL’s “flags” reverses the metaphor, since the verse (Āyah) likens the ships to large, solid objects rather than small, symbolic ones. Therefore, a Tafsīr-consistent translation is “like mountains,” which accurately conveys both Qur’anic imagery and Ibn Kathir’s explanation.

8. Verses 8: [Al-Baqarah 2:219]

﴿...وَيَسْأَلُونَكَ مَاذَا يُنفِقُونَ قُلِ الْعَفْوَ كَذَلِكَ يُبَيِّنُ اللَّهُ لَكُمْ آيَاتِهِ لَعَلَّكُمْ تَتَفَكَّرُونَ﴾ [البقرة: 219]

Ibn Kathir's Tafsir

The term “الْعَفْوَ” is explained as

What a person spends beyond their own needs surplus from what is sufficient for oneself and family. It directs believers toward moderation, avoiding extravagance and stinginess.

Translation Source	Rendering of term	Full rendering (relevant clause)
ChatGPT	whatever is beyond your needs	Say: ‘ Whatever is beyond your needs. ’ Thus, Allah makes clear to you the signs, that you may reflect.”
DeepL	whatever you can spare	“...Say: ‘ Whatever you can spare. ’ Thus, Allah makes clear to you the verses (Āyah) so that you may reflect.”
Mustafa Khattab	whatever you can spare	“...Say: ‘ Whatever you can spare. ’ This is how Allah makes His revelations clear to you ‘believers’, so perhaps you may reflect.”

As presented in the table, ChatGPT’s translation, “Whatever is beyond your needs,” closely aligns with Ibn Kathir’s tafsir. It conveys the notion of spending in excess of personal and family needs, emphasizing temperance and avoiding extravagance or greedfulness. DeepL and Mustafa Khattab render it as “whatever you can spare,” which captures general discretionary spending but misses the Tafsir’s emphasis on surplus beyond necessity. A Tafsir-consistent translation is therefore “whatever is in excess of your needs,” rather than the broader “whatever you can spare.”

9. Verses 9: [Al-Baqarah 2:219]

﴿* وَتَرَى الشَّمْسَ إِذَا طَلَعَتْ تَزْوُورُ عَنْ كَهْفِهِمْ ذَاتَ الْيَمِينِ وَإِذَا غَرَبَتْ تَقْرِضُهُمْ ذَاتَ الشِّمَالِ وَهُمْ فِي فَجْوَةٍ مِنْهُ ذَلِكَ مِنْ آيَاتِ اللَّهِ مَنْ يَهْدِ اللَّهُ فَهُوَ الْمُهْتَدِ وَمَنْ يُضِلِلْ فَلَنْ تَجِدَ لَهُ وَلِيًّا مُرْشِدًا﴾ [الكهف: 17]

Ibn Kathir's Tafsir

تَزْوُورُ : The sun inclines or turns away from their cave toward the right, avoiding shining directly on them.

تَقْرِضُهُمْ : The sun passes them by or leaves them untouched as it sets, not affecting them.

The emphasis is on divine protection, showing how natural phenomena are arranged to preserve the sleep of the protagonists.

Translation Source	Rendering of the term	Full rendering (relevant clause)
ChatGPT	declining/passing by	“...when it rose, declining from their cave toward the right, and when it set, passing them by on the left...”
DeepL	veers/passes	“...when it rises, it veers away from their cave on the right, and when it sets, it passes them on the left...”
Mustafa Khattab	inclining/declining away	“...as it rose, inclining away from their cave to the right, and as it set, declining away from them to the left...”

As reported in the table, Mustafa Khattab’s translation, “inclining away... declining away,” closely follows Ibn Kathir’s Tafsir. It conveys the sense that the sun avoids illuminating the cave, emphasizing God’s protection and the safety of the sleeping people. ChatGPT’s “declining... passing by” and DeepL’s “veers... passes” are accurate but less nuanced, as “passing by” or “veering” may suggest mere motion rather than the deliberate avoidance highlighted in the Tafsir. A Tafsir-consistent rendering is therefore “inclining away... declining away,” preserving the Qur’anic subtlety of divine care and protection.

Discussion

A comparative analysis of AI-generated and human translations of selected Qur'anic words reveals significant differences in semantic accuracy, contextual depth, and interpretive richness. AI models such as ChatGPT and DeepL demonstrate linguistic fluency, but they often fail to capture the exegetical nuances and theological implications emphasized in classical Tafsīr.

For example, words such as الكفار in Al-Hadid 57:20 and قاموا in Al-Baqarah 2:20 show AI's tendency toward literal equivalence at the expense of contextual meaning. Such renderings risk introducing theological ambiguities that distort the Qur'anic messages. In contrast, Dr. Mustafa Khattab's translation consistently aligns with Ibn Kathir's Tafsīr, preserving the rhetorical depth, spiritual intent, and contextual fidelity.

Interestingly, some AI outputs, such as ChatGPT's rendering of العفو in Al-Baqarah 2:219 as "whatever is beyond your needs," demonstrate semantic precision. This indicates that while AI lacks theological awareness, its vocabulary-based training can occasionally approximate exegetical meaning when contextual cues are clear.

These findings support Naudé's (2010) claim that religious translation transcends mere linguistic processing and requires cultural literacy, spiritual insight, and interpretive judgment. AI's inability to engage with interpretive traditions or moral considerations renders it unsuitable for translating sacred texts, particularly where multivalent words carry theological significance.

Findings

Semantic Accuracy

- Human translation consistently generates higher semantic accuracy, especially for verses (Āyah) that feature metaphorical or exegetically dense vocabulary.
- AI tools tended to default to literal translations, which led to interpretive mistakes in most verses (Āyah).

Contextual Sensitivity

- Human translation conveys rhetorical, historical, and spiritual dimensions in Tafsīr texts.
- AI-generated translations frequently skip these levels, leading to theologically suspicious or misleading translations.

Interpretive Depth

- Human translation is sensitive to Qur'anic stylistics, idiomatic use, and exegetical traditions.
- AI devices showed limited interpretive nuance, especially when words had multiple connotations.

Variation in Performance Across AI Devices

- ChatGPT occasionally surpassed DeepL in reproducing contextually appropriate meanings (e.g., وأهش (بها على غنمي).
- DeepL frequently resorted to unnecessarily literal or generic formulations, implying a lower fit to religious discourse.

Implications for Developing AI

- Evidence indicates the need for domain-specific AI models trained on exegetical corpora and supervised by Qur'anic study experts to improve their contextual and theological accuracy.

Conclusion

This study highlights the key differences between artificial intelligence and human translators in rendering Qur'anic verses (Āyah). Although AI systems show advanced linguistic capabilities, their lack of cultural sensitivity, exegetical awareness, and spiritual insight makes them unsuitable for translating the Qur'an, a text rich in semantics, rhetoric, and religious depth.

In contrast, human translators draw on both the Tafsīr tradition and linguistic expertise. They safeguard the rhetorical beauty, spiritual integrity, and intended meaning of the Qur'an, ensuring fidelity to its words and message.

Despite these limitations, AI can play a valuable supporting role in hybrid translation workflows. It can generate preliminary drafts, providing initial linguistic renderings for human translators to refine them. This saves time on routine phrasing and allows scholars to focus on their interpretive choices. AI can also perform consistency checks across repeated terms, phrases, and theological concepts, thereby maintaining uniformity throughout the translation. Additionally, AI can flag ambiguous terms or complex expressions for expert review, directing human attention to areas of high interpretive significance. By automating repetitive or low-level tasks, AI reduces cognitive load and enables scholars to concentrate on semantic nuances, rhetorical devices, and spiritual meanings. When used as a collaborator rather than a replacement, AI combines speed and pattern recognition with human insight, creating hybrid workflows that enhance efficiency while preserving interpretive fidelity.

In conclusion, translating the meaning of Qur'an is not merely a linguistic task but an interpretive process that is deeply rooted in faith, culture, and scholarly tradition. While AI can support efficiency, consistency, and preliminary analysis, human scholars remain essential for maintaining the purity, accuracy, and sanctity of the divine revelation. Hybrid workflows that leverage AI for draft generation, consistency monitoring, and ambiguity detection provide a practical balance between technological assistance and human expertise, ensuring that translations remain both faithful and spiritually resonant.

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مقالة بحثية

الذكاء الاصطناعي والترجمة البشرية لآيات مختارة من القرآن الكريم: دراسة تقابلية لدقة المعنى والتفسير

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المُلخَص

لقد أحدثت الترجمة الآلية العصبية المتقدمة (NMT) ثورة في مجال التواصل بين اللغات. غير أن توظيفها في الترجمة الدينية، ولا سيما ترجمة القرآن الكريم، ينطوي على تحديات تتجاوز النقل اللغوي إلى أبعاد أعمق تتصل بالجوانب العقدية والثقافية والتفسيرية. وتقوم هذه الدراسة بإجراء تحليل تقابلي منهجي بين الترجمات المنتجة آلياً والترجمات البشرية لتسع آيات قرآنية مختارة بدقة، تتضمن عشرة ألفاظ معقدة دلاليًا وإشكاليًا تأويليًا. ومن خلال المقارنة بين مخرجات ChatGPT و DeepL وبين الترجمة البشرية المرموقة للدكتور مصطفى خطاب «القرآن المبين» (2001م)، واتخاذ تفسير ابن كثير مرجعًا تأويليًا، تقيس هذه الدراسة الترجمات من حيث الوفاء الدلالي، والغنى السياقي، والعمق التفسيري. وتكشف نتائج الدراسة أن قدرة أدوات الذكاء الاصطناعي على إنتاج نصوص متقنة لغويًا تقابلها محدودية منهجية في التعبير عن العمق التأويلي والمقاصد العقدية، مع نزوع إلى الترجمة الحرفية أو المضللة. أما الترجمة البشرية، المستنيرة بالتراث التفسيري الموروث، فتتفوق بوضوح في التعامل مع تعقيد الخطاب القرآني. وتخلص الدراسة إلى التأكيد على ضرورة أن تستند أي تطبيقات مستقبلية للذكاء الاصطناعي في ترجمة النصوص الدينية إلى corpus تفسيري متخصص تحت إشراف الخبراء.

الكلمات المفتاحية: ترجمة الذكاء الاصطناعي، تفسير القرآن (التفسير)، الأمانة الدلالية، الدقة التأويلية.

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