

COMPARING HUMAN AND MACHINE TRANSLATION: QUALITATIVE CRITERIA

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Abstract

The rapid advancement of machine translation (MT) has sparked ongoing debates about its effectiveness compared to human translation (HT). While MT systems such as Google Translate and DeepL have improved significantly, they continue to face challenges related to accuracy, cultural nuance, and stylistic appropriateness. This paper explores the qualitative criteria used to evaluate translations, comparing human and machine outputs in terms of fluency, accuracy, cultural adaptation, and contextual understanding. Through an analysis of examples drawn from legal contracts, marketing materials, and corporate communications, the study highlights the respective strengths and limitations of both approaches, offering insights into scenarios where human expertise remains indispensable.

Keywords: Machine translation, human translation, qualitative evaluation, fluency, accuracy, cultural adaptation

1. Introduction

Translation is a complex process that involves more than simply substituting words from one language into another; it requires a deep understanding of context, culture, and communicative intent. Human translators have traditionally set the standard for high-quality translations. However, recent advancements in artificial intelligence (AI) and neural machine translation (NMT) have led to the widespread adoption of automated systems.

Despite their efficiency, MT systems often struggle with linguistic nuances that human translators intuitively manage. This is particularly evident in Business English, which demands precision, a formal tone, and industry-specific terminology. While machine translation tools such as DeepL and Google Translate perform well with general texts, they frequently encounter difficulties with complex business jargon, legal phrasing, and culturally sensitive content.

This paper evaluates human and machine translation using qualitative criteria such as fluency, accuracy, cultural adaptation, and contextual coherence. The aim is to assess the current capabilities of MT and to identify domains in which human expertise remains indispensable.

2. Qualitative Criteria for Translation Evaluation

2.1 Fluency and Professional Tone

Fluency refers to how naturally a translation reads in the target language. Moreover, business communications require a formal yet natural tone. Human translators—often native speakers or highly proficient users—produce texts that flow smoothly, employing appropriate syntax, idiomatic expressions, and phrasing aligned with corporate conventions. In contrast, machine translation may result in awkward, overly literal outputs or incorrect collocations, compromising the professional tone of the message.

Example (Corporate Email):

- **Original (English):** *"We regret to inform you that your proposal has not been selected for further consideration."*

- **Human Translation (Ukrainian):**

"На жаль, змушені повідомити Вам, що вашу пропозицію не було відібрано для подальшого розгляду " (Natural, professional)

- **Machine Translation (Google Translate):**

"З жалем повідомляємо, що вашу пропозицію не було обрано для подальшого розгляду" (Slightly robotic, less formal)

Issue: MT uses *"На жаль"* (unfortunately) instead of the more formal *"З жалем"* (with regret).

2.2 Accuracy in Legal and Financial Terminology

Accuracy assesses the degree to which a translation faithfully renders the source text's meaning. In legal and financial documents, even minor imprecision can have significant repercussions. Human translators draw on subject-matter knowledge and contextual cues to disambiguate terms. In contrast, machine translation systems frequently misrender specialized terminology, which often defaults to literal equivalents, risking semantic errors, contractual misunderstandings, or regulatory non-compliance.

Example (Contract Clause):

- **Original (English):** *"The party in breach shall indemnify the aggrieved party for all incurred losses."*

- **Human Translation (Ukrainian):**

"Сторона, яка порушила умови договору, зобов'язана відшкодувати постраждалій стороні всі понесені збитки." (Legally precise)

- **Machine Translation (Google Translate):**

"Сторона, яка порушила договір, зобов'язана відшкодувати потерпілій стороні всі понесені збитки." (постраждала сторона — suffered a loss, whereas потерпіла сторона — at the offence)

Issue: *"Постраждала сторона"* (financial term) vs. *"потерпіла сторона"* (criminal term) – a critical distinction in contracts.

2.3 Cultural Adaptation in Marketing

Cultural adaptation involves modifying content to align with the target audience's cultural norms, values, and expectations. This is particularly crucial in marketing, where translations must resonate culturally to maintain persuasive impact. Human translators are adept at localizing humor, metaphors, idiomatic expressions, and culturally specific references to ensure relevance and engagement. In contrast, machine translation often fails to adapt slogans, taglines, or brand messaging appropriately, leading to miscommunication or a diminished brand image.

Example (Advertising Slogan):

- **Original (English):** *"Think outside the box."*

- **Human Translation (Ukrainian, adapted):**

"Виходь за межі звичного." (Engaging, idiomatic)

- **Machine Translation (DeepL):**

"Мисліть нестандартно" (No emotional response)

Issue: The human version conveys the intended meaning from a cultural perspective, while machine translation provides a less meaningful translation.

2.4 Handling Abbreviations & Acronyms

Business English uses many abbreviations (e.g., *ROI*, *KPI*, *LLC*). MT either transliterates or mistranslates them.

Example (Report Excerpt):

- **Original (English):** *"The ROI exceeded expectations due to streamlined KPIs."*

- **Human Translation (Ukrainian):**

"Рентабельність інвестицій перевищила очікування завдяки оптимізованим ключовим показникам ефективності." (Full terms explained)

- **Machine Translation (ChatGPT):**

"Повернення інвестицій (ROI) перевищило очікування завдяки оптимізованим ключовим показникам ефективності (KPI)." (Keeps English abbreviations—confusing for Ukrainian readers)

Issue: MT retains untranslated acronyms, reducing clarity for non-English-speaking clients

3. Recommendations for Business Use

In business, the choice between human and machine translation should depend on the purpose, audience, and content type. For **legal contracts**, human translation is essential due to the need for absolute precision and contextual interpretation; machine translation poses a high risk of errors. Similarly, **marketing texts** require human expertise to ensure cultural adaptation and effective messaging, whereas machine-generated outputs rely on literal translations that may not resonate with target audiences. In the case of **internal emails**, machine translation can be acceptable for low-risk or informal communication, especially when speed is a priority; however, human translation is advisable for high-stakes or sensitive correspondence. For **financial reports**, where accuracy in terminology and numerical context is critical, human translators are preferred, as machine translation often misinterprets abbreviations and technical language.

| Scenario | Prefer Human Translation | Prefer Machine Translation |
|-------------------|--------------------------------|---------------------------------|
| Legal Contracts | ✓ (Precision required) | ✗ (Risk of errors) |
| Marketing Texts | ✓ (Cultural adaptation needed) | ✗ (Literal translations fail) |
| Internal Emails | ⚠ (If high-stakes) | ✓ (Fast, acceptable for drafts) |
| Financial Reports | ✓ (Terminology accuracy) | ✗ (Mistakes in abbreviations) |

Best Practice: Use MT for draft translations or low-risk texts but involve human editors for:

- Client-facing documents
- Legal/financial texts
- Culturally sensitive marketing

4. Conclusion and Recommendations

While machine translation (MT) has made remarkable strides in terms of speed and accessibility, human translation (HT) continues to outperform it in areas requiring nuance, cultural sensitivity, and complex linguistic interpretation. MT is most effective for informal, repetitive, or low-stakes content, such as internal emails or basic website text, where minor errors are acceptable. In contrast, HT remains essential for legal, financial, and marketing translations, where precision, consistency, and cultural adaptation are critical.

While future advances in artificial intelligence may narrow the performance gap, human oversight, particularly through post-editing, will likely remain indispensable for guaranteeing high-quality output. A hybrid approach, leveraging the efficiency of machine translation (MT) and human translation (HT) expertise, presents an optimal balance between speed and quality. This approach enables businesses to meet professional translation standards cost-effectively.

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