



Quality Translation Evaluation: Understanding the Roles of Human Translation and Machine Translation

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Abstract

This paper explores the critical aspect of translation quality evaluation by examining the distinctive contributions of both human translation and machine translation. In an era where technology plays an ever-increasing role in translation processes, it is essential to comprehend the strengths and limitations of both human and machine translators. Through a comprehensive analysis of real-world translation examples and case studies, this research sheds light on the nuances of translation quality, emphasizing the interplay between human expertise and machine efficiency. By offering insights into the evaluation methodologies, criteria, and challenges associated with assessing translation quality, this study provides a valuable resource for professionals, researchers, and stakeholders seeking to enhance their understanding of the complex dynamics in the field of translation.

Keywords: *Human Translation, Machine Translation*

A. INTRODUCTION

Translation involves conveying the intended meaning of a text into another language as the author intended, as stated by Newmark (1988). Bell (1991) defines translation as expressing in the target language what has been expressed in the source language, while preserving semantic and stylistic equivalences. Translation is essentially the expression of one language in another, considering semantics and equivalence.

In the field of translation studies, there remains a widespread confusion among students and individuals regarding the distinctions between human and machine translation, as well as the respective advantages and weaknesses of each. This issue is of significant concern and warrants discussion to arrive at accurate insights. It is imperative to acquire this knowledge to make informed choices, particularly when it comes to completing assignments and conducting business. Various definitions exist for machine-aided translation, positioning it on a spectrum ranging from human translation to fully automatic machine translation, as outlined by Baker in 2015.

Translation, fundamentally, involves the transformation of text or speech from one language to another, with the source language (SL) being converted into the target language (TL). This process necessitates a thorough understanding of both the source and target language, encompassing their lexical elements and grammatical structures, by the translator. As expressed by Collin in 2006, a translation is essentially the conveyance of content from one language to another.

Translation theory, as elucidated by Newmark in 2000, primarily focuses on determining suitable translation methods for a wide array of texts and text categories. It

provides a framework of principles, defined rules, and insights for translating and evaluating translations, serving as a backdrop for problem-solving. A comprehensive theory of translation might also incorporate a practical evaluation process with specific criteria, as suggested by Graham in 1981. E. Nida, in 1969, contends that, since translation is inherently a linguistic activity, all theories of translation are fundamentally rooted in the realm of linguistics.

B. RESEARCH METHODS

This research employed a descriptive qualitative approach, which aims to provide a detailed account of a natural phenomenon or human-made constructs. The research delved into the exploration of forms, activities, characteristics, changes, relationships, similarities, and differences between the phenomenon under investigation and other related phenomena, as outlined by (Sukmadinata in 2009).

The data for this research comprised words, phrases, clauses, and sentences, primarily consisting of translated texts from both human and machine translations. The data collection method focused on gathering these linguistic units within the research's defined scope. Subsequently, the collected data underwent a descriptive analysis using a three-step technique involving data condensation, data display, and drawing or verifying conclusions

C. RESULT AND DISCUSSION

Machine translation does not achieve a flawless conversion of the source text into the target text. The translated text retains many characteristics of the source language, which raises questions about both linguistic accuracy and meaning. At the same time, it's important to assess the extent to which human translation successfully transforms the source text into the target text to determine if the same impact is maintained.

Machine translation primarily offers a literal or word-for-word translation, lacking flexibility as each word in the source text is systematically replaced.

In contrast, human translators can address the shortcomings of machine translation. They approach translation with a focus on understanding the source text and producing a high-quality translation in the target language. Human translators possess the flexibility to navigate between languages while considering structural differences.

1. Machine Translation

The concept of machine translation has historical roots dating back to the 17th century, with René Descartes proposing a universal language idea in 1629. The term "machine translation" was coined in Warren Weaver's Memorandum on Translation in 1949. Yehosha Bar-Hillel, the first researcher in the field, initiated his work at MIT in

1951. Georgetown University's MT research team also began their efforts in 1951, demonstrating the Georgetown-IBM experiment system in 1954. Japan and Russia initiated MT research programs in 1955, and the first MT conference took place in London in 1956.

The field continued to grow, leading to the formation of the Association for Machine Translation and Computational Linguistics in the U.S. in 1962 and the establishment of the Automatic Language Processing Advisory Committee (ALPAC) by the National Academy of Sciences to study MT in 1964.

Despite these developments, substantial progress was slow, and following the ALPAC report in 1966, which found that the ten-year research had not met expectations, funding was significantly reduced. However, a 1972 report by the Director of Defense Research and Engineering (DDR&E) highlighted the feasibility of large-scale machine translation, thanks to the success of the Logos MT system in translating military manuals into Vietnamese during the conflict.

2. Human Translation

Any attempt to fully replace human translation with machine translation is bound to fail because machine translation lacks the capability of interpretation. For example, human translators are uniquely equipped to understand and interpret cultural nuances present in the source text, which may not have direct equivalents in the target language. Additionally, maintaining the same impact from the source text in the target text, a challenging aspect of translation, is often beyond the capabilities of automatic translation when compared to human translation. Human translators are the only ones who can comprehend the various cultural, linguistic, and semantic factors necessary to preserve this impact.

It's a well-acknowledged fact that automatic translation is a valuable tool for quickly generating a large number of translated texts. However, the quality of these translations remains a subject of debate. Automatic translation struggles to provide accurate translations for words with different vowel forms, as seen with the Arabic term "kotob," which can mean "books" in English. In many translation programs, when translating from Arabic to English, this term is often confused with another Arabic term, "katoba," which means "to write" in English.

On the contrary, human translators excel in reading words with various diacritic marks and vowels, avoiding the same errors that automated translation systems might make. Occasionally, automated translation fails to find equivalent terms in the target

language, leaving them unchanged from the source text. This section of the paper primarily aims to illustrate the key disparities between automated and human translation, highlighting the superiority of the latter. Human translation can be likened to deciphering the source text's meaning and encoding it in the target language.

Mainstream machine translation tools, such as Google Translate, often provide overly literal dictionary translations. When translating non-Latin alphabets like Arabic, Cyrillic, or Chinese into English, they may produce nonsensical results. However, some advanced translation companies now offer machine translation engines that have been trained by human translators.

In these cases, the translation engine is provided with a substantial amount of a company's professionally translated material for all its various language markets. This allows the machine to become familiar with industry-specific terminology and preferences for each market. To illustrate, if a fashion business is involved, an English to French machine translation tool would understand that a certain type of jacket should be translated as a "smoking jacket" rather than the literal translation "veste."

For translations with high volume and lower quality requirements, using machine-translated content alone may suffice, even if some inaccuracies are acceptable. However, when a business demands higher-quality translations, the most cost-effective approach is post-edited machine translation. This involves running the content through the machine translation engine and subsequently having a human translator review it to ensure accuracy and proper localization for the target region, avoiding cultural discrepancies, language issues, and spelling choices.

Any improvements made by the professional translator are then incorporated back into the translation engine to enhance its efficiency and knowledge with increased usage.

The Benefits of Human Translation

While translators may not possess the same skills as writers or journalists in creating content from scratch, they are regarded as experts in their field due to their ability to adapt source text to specific audiences. In this sense, translators can be likened to editors who continuously refine and perfect written pieces for a wider readership.

To exemplify, here's a typical process a translator follows: After completing an initial translation draft, they meticulously review it for inconsistencies, misunderstandings, errors, and the like through thorough proofreading. Subsequently, the translator revises the proofread version to eliminate translation markers. This skill helps the final product appear less like a translation and more like an original document.

D. CONCLUSION

In summary, since the inception of translation studies as an academic discipline, various methods of translation, including Machine Translation, have emerged. However, this development has not supplanted Human Translation, as the latter remains the only approach capable of translation that extends beyond mere word substitution, addressing linguistic, semantic, and crucially, cultural distinctions between languages. This paper aimed to distinguish between Machine Translation and Human Translation by highlighting their distinct characteristics. It primarily focused on elucidating the factors that make Human Translation more effective and adaptable when compared to Machine Translation. To illustrate this point, a practical text was provided and translated using both Machine Translation and Human Translation.

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