Comparative Analysis Of Machines Translation From English To Indonesian In Literature Text

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Abstract

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This research title is "Comparative Analysis of Machines Translation from English to Indonesia in Literature Text". The aims of this research is to compare the quality of both machines translation in translating literature work. The data was taken from short story "The Ransom of Red Chief" by O. Henry by using the theory from (Newmark, 1988). The study finds out of 8 methods there are 5 methods used by DeepL Translate and Google Translate. In the result, DeepL Translate mostly uses the Literal Translation (48,43%), followed by Faithful Translation (44.59%), then Word for Word Translation (4,18%), Semantic Translation (1.74%) and Adaptation Translation (1.04%). While Google Translate mostly uses the Literal Translation (54,7%), followed by Faithful Translation (37.97%) then Word For Word Translation (4.87%) then Semantic Translation (1.74%) and Free Translation (0.69%). From the eight methods word for word translation and literal translation is the less capable for being used as the method in translation. Hence, as the data showed Google Translate used the most word for word translation and literal translation than DeepL Translate it is shown that the quality of DeepL Translate is better than Google Translate.

I. INTRODUCTION

The development of language has evolved alongside human beings across the globe. To bridge communication gaps, translation is essential. Catford defines translation as the replacement of textual material in one language with equivalent material in another. In today's globalized world, translation skills are crucial for cooperation in business, public relations, politics, and knowledge exchange.

Historically, references to translation date back to the third millennium BC in Babylon. As human knowledge expanded, translation was applied to various forms, starting with the Bible and then encompassing literary works, knowledge books, and media. Technological advancements have facilitated the translation process. Newmark proposed eight translation methods, including word for word, literal, faithful, semantic, adaptation, free, idiomatic, and communicative translation.

The development of technology has influenced the translation process, with computers assisting translators. Machine translation dates back to the 17th century but gained prominence in the late 20th century. The European Association of Machine Translation defines machine translation as a computer system that translates with or without human assistance, while

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computer-assisted translation (CAT) refers to software designed to aid human translators. Although closely related, MT and CAT differ in their technology and applications.

The internet has made language translation more accessible, with machine translation tools like Google Translate and DeepL gaining popularity. Google Translate, launched in 2006, is used by billions daily. DeepL Translate, known for its accuracy, was launched in 2019. However, its reliability for translating English to Indonesian is still under verification.

Literature, defined as writing that interprets nature and life aesthetically and reflects the author's perspective, is a valuable subject for translation analysis. This study focuses on "The Ransom of Red Chief" by O. Henry, a short story about two kidnappers who encounter unexpected challenges with the kidnapped boy. The researcher aims to compare the quality of Google Translate and DeepL in translating this literary work into Indonesian.

By analyzing the translation methods used by these machine translation tools, the researcher will determine their accuracy and effectiveness in translating literary texts. This study will contribute to understanding the capabilities and limitations of machine translation in preserving the nuances and artistic value of literary works.

II. METHODS

The research approach used in this study is qualitative descriptive. Qualitative methods focus on data presented in words or images rather than numbers or statistics. Both Bogdan and Ary define qualitative research as descriptive, collecting data in the form of words or pictures.

This study utilizes descriptive research, which aims to present data in accordance with facts and interpretations. The data collected is from short stories and presented in tabular form. Moleong identifies two types of data: primary data obtained directly by researchers through interviews or observations, and secondary data obtained indirectly from sources like books, the internet, or archives. In this case, the researcher uses secondary data in the form of a novel.

The specific data used is short stories by O. Henry, an American writer known for his 381 stories. "The Ransom of Red Chief" was his last work, published in 1907. This story, consisting of 16 pages and 4118 words, has been adapted into movies and television series. The researcher chose this story due to O. Henry's descriptive language and imagery, which enhance the reader's understanding of the plotline.

III. RESULTS

The analysis of the translation methods used by DeepL Translate and Google Translate reveals that both primarily employ literal and faithful translation methods. DeepL Translate uses literal translation most frequently (48.43%), followed by faithful translation (44.59%). Google Translate also favors literal translation (54.7%), followed by faithful translation (37.97%). These results indicate that both translators prioritize preserving the source text in their translations. **Word for Word Translation**

Sentence 19 by DT				
ST	There we stored provisions			
ТТ	Di sana kami menyimpan			
	perbekalan.			
Sentence 253 by GT				
ST	But no, sirree!			
TT Tapi tidak, tuan!				

The analysis of word-for-word translations by DeepL Translate and Google Translate shows that some sentences can be understood while others cannot. Sentences without hidden meanings can still be understood, but the translations may sound awkward due to adherence to the source text structure. The use of old terms in modern English can also lead to different meanings. This method is less suitable for translating literary texts with figurative language or hidden meanings. Literal Translation

	SENTENCE 9 by DT
ST	Philopro- genitiveness, says
	we, is strong in semi-rural
	communities.
TT	Philopro- genitas, kata kami,
	sangat kuat di komunitas semi-
	pedesaan
	SENTENCE 72 by GT
ST	We went to bed about eleven
	o'clock.
TT	Kami pergi tidur sekitar jam
	sebelas.

The analysis shows that Google Translate accurately translated the sentence in terms of literal meaning and structure. However, it lacks context, as the time "eleven o'clock" is translated without specifying whether it's day or night. To improve understanding, the translation should include "malam" (night) to indicate the time of day.

Both DeepL Translate and Google Translate encounter challenges with translating terms that are not commonly used, such as "philoprogenitiveness" and "court plaster." Additionally, Google Translate continues to struggle with describing time accurately, translating it without specifying day or night.

Faithful Translation

		SENTENCE 1 by DT	
ST		It looked like a good thing:	
TT		Kelihatannya seperti hal yang bagus:	
		SENTENCE 40 by GT	
	ST	Yes, sir, that boy seemed to be having	
		the time of his life.	
	TT	Ya, Pak, anak laki-laki itu sepertinya	
		sedang bersenang-senang.	

The analysis shows that the translation is an example of faithful translation, as it goes beyond a literal word-by-word approach. The phrase "it looked" was translated as "kelihatannya," which is more contextual than the literal translation "itu terlihat."

Although the faithful translation conveys the source text's context, the overall sentence sounds stiff. To improve naturalness, "kelihatannya itu hal yang bagus" can be used. The word "itu" in Indonesian can refer to something, making the sentence more casual and suitable for the story's context.

The analysis shows that Google Translate's faithful translation of "it looked" as "kelihatannya" is more contextual than a literal translation. While the translation conveys the meaning, it sounds stiff. To improve it, "itu hal yang bagus" can be used.

Both DeepL Translate and Google Translate frequently use a faithful translation approach that maintains the original sentence structure. While this helps to preserve the context, it can

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sometimes result in awkward or unnatural phrasing. This method is commonly used by both tools, suggesting that their abilities in faithfully translating short stories are similar.

Semantic Translation

SENTENCE 94 by DT		
ST	"What you getting up so soon for, Sam?"	
~ -	asked Bill.	
TT	"Untuk apa kamu <u>bangun pagi-pagi</u>	
	<u>sekali</u> , Sam?" tanya Bill	
SENT	SENTENCE 236 by GT	
ST	On the way he kicks my legs black-and-	
	blue from the knees down;	
TT	Di tengah perjalanan dia menendang	
	kakiku hingga <u>babak belur</u> dari lutut	
	ke bawah;	

The analysis shows that DeepL Translate's translation is an example of semantic translation. It not only conveys the meaning but also maintains the aesthetic quality of the original text. By adding the word "pagi pagi sekali" (very early), the translation provides more context and sounds more natural in Indonesian. This demonstrates DeepL Translate's ability to go beyond literal translation and preserve the overall style and meaning of the text.

Google Translate successfully conveyed the contextual meaning of the phrase "black and blue." Instead of a literal translation, it chose "babak belur," which accurately captures the meaning of injuries. This shows Google Translate's ability to translate words in a way that is both accurate and readable.

Both DeepL Translate and Google Translate have shown their ability to translate some English phrases semantically, effectively conveying the context of the source text. However, the frequency of successful semantic translations is still low, less than 5%, indicating that this method is not their primary strength.

Adaptation Translations

SEN	SENTENCE 220 by DT		
Т	The kid stopped about eight feet behind him.		
Т	Anak itu berhenti sekitar <u>delapan meter</u>		
	di belakangnya.		
SEN	SENTENCE 239 by DT		
ST	I showed him the road to Summit and		
	kicked him about eight feet nearer there at		
	one kick.		
TT	Saya menunjukkan jalan menuju		
	Puncak dan menendangnya sekitar		
	<u>delapan meter</u> lebih dekat ke sana		
	dalam satu tendangan.		

The analysis shows that DeepL Translate successfully adapted the cultural context of distance measurement from feet to meters. This demonstrates its ability to translate not only words but also concepts that are specific to different cultures. Google Translate, on the other hand, did not adapt the cultural context in this case.

Free Translation

	SENTENCE 1 by GT	
ST	It looked like a good thing:	
TT	Kelihatannya bagus	
	SENTENCE 199 by GT	

ST	"Get down on your hands and
	knees.
TT	"Berlututlah.

The analysis shows that Google Translate used a free translation method, which focuses on conveying the overall message rather than maintaining the exact structure or length of the source text. This can result in translations that are longer or shorter than the original.

The free translation method used by Google Translate can simplify the source text by reducing the number of words. While it may not translate every word, it effectively conveys the main message. This method is well-suited for journalistic texts that aim to provide concise summaries of news.

IV. CONCLUSIONS

Both DeepL Translate and Google Translate primarily use literal and faithful translation methods, which are less effective in conveying context and can result in stiff sentences. While both machines have similar results in translating first-person pronouns, they struggle with translating certain terms and idioms.

DeepL Translate demonstrated its ability to adapt cultural contexts, translating "feet" to "meters." However, it did not use the free translation method, which can be helpful for conveying the main message while sacrificing some details.

In conclusion, both machine translation tools are still limited in their ability to match the quality of human translation. They can be useful as a starting point, but human translators are essential for more nuanced and accurate translations.

REFERENCES

- Agung, I. G. (2024). Translation Performance of Google Translate and DeepL in Translating Indonesian Short Stories into English. *Conference Paper*. Retrieved from https://www.researchgate.net/publication/377702497_translation_performance_of_google_tr anslate_and_deepl_in_translating_indonesian_short_stories_into_english
- Arifatun, N. (2012). Kesalahan Penerjemahan Teks Bahasa Indonesia ke Bahasa Arab Melalui Google Translate. *Journal of Arabic Learning and Teaching*, 3. Retrieved from https://journal.unnes.ac.id/sju/laa/article/view/1506
- Ary, D. (2009). *Introduction to Research in Education*. Cengage Learning. Retrieved from https://repository.unmas.ac.id/medias/journal/EBK-00124.pdf
- Catford, J. C. (1965). *A Linguistics Theory of Translation*. London: Ofxord University Press. Retrieved from https://shorturl.at/DAvPb
- Ch. Boitet, H. B. (2009). Evolution of MT with the Web. *International Conference "Machine Translation 25 Years On"*. Retrieved from https://lig-membres.imag.fr/blanchon/Pdfs/MT25YO-Evolution-MT-web.pdf
- Craciunescu. (2004). Machine Translation and Computer Assisted Translation. *Translation*. Retrieved from https://aclanthology.org/www.mt-archive.info/TranslationJ-2004-Craciunescu.pdf
- Fauziya, A. (2024, March 08). DeepL vs Google Translate comparison: Which is best? Retrieved from Linguise.com: https://www.linguise.com/id/blog/memandu/deepl-vs-googleterjemahan/

Fitria, T. N. (2023). Performance of Google Translate, Microsoft Translator, and DeepL Translator: Error Analysis of Translation Result. *Al Lisan : Jurnal Bahasa*. Retrieved from https://www.researchgate.net/publication/374866173_Performance_of_Google_Translate Microsoft Translator and DeepL Translator Error Analysis of Translation Result#p

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- Hutchins, J. (2014). The History of Machine Translation in a Nutshell. Retrieved from https://aclanthology.org/www.mt-archive.info/10/Hutchins-2014.pdf
- Hutchins, W. (1978). Machine Translation and Machine Aided Translation. *Journal of Documentation*. Retrieved from https://mt-archive.net/70/JDoc-1978-Hutchins.pdf
- Larson, M. L. (1984). A Guide to Cross language Equivalence. Maryland: University Press of America.
- Mark Hall, W. L. (2024). *Google | History & Facts; Products & Services*. Retrieved from Britannica: https://www.britannica.com/money/Google-Inc
- Mayang, M. (2021). Comparative Study Between Google Translate and Google Docs Translator Quality in Translating Hedging Words BBC News. Medan: Universitas Sumatera Utara.
- Moleong, L. J. (2007). Metode Penelitian Kualitatif. Bandung: Remaja Rosdakarya.
- Nafisah, N. H. (2018). Translation methods and degree of equivalence in English-Indonesian translation of Leo Tolstoy's "God Sees he Truth But Waits". *Journal of Literature, Linguistics and Cultural Studies,*. doi:https://doi.org/10.15294/rainbow.v7i2.29435.
- Newmark, P. (1988). A Textbook of Translations. Japan: Prentice Hall International. Retrieved from https://shorturl.at/OCWnY
- Nida, E. A. (1964). Toward a Science of Translating: With Special Reference to Principles and Procedures Involved in Bible Translating (Second Edition). Netherlands: EJ. Brill.
- Nino Vukalović. (2021). An Analysis of Computer Assisted Translation (CAT). *Master's thesis*, 3. Retrieved from https://zir.nsk.hr/islandora/object/ffri%3A2967/datastream/PDF/view
- Poibeau, T. (2017). *Machine Translation*. London: The MIT Press. Retrieved from https://ia802801.us.archive.org/9/items/ThierryPoibeauMachineTranslation/Thierry%20P oibeau_Machine%20Translation.pdf
- Precup-Stiegelbauer, L.-R. (2013). Automatic translations versus human translations in nowadays world. *Procedia - Social and Behavioral Sciences*. Retrieved from https://www.sciencedirect.com/science/article/pii/S187704281300253X?via%3Dihub
- Rexroth, K. (2024). *literature*. Retrieved from Encyclopedia Britannica: https://www.britannica.com/art/literature
- Robert Bogdan, S. K. (1982). *Qualitative Research for Education: An Introduction to Theory and Methods.* Michigan: Allyn and Bacon,. Retrieved from https://math.buffalostate.edu/dwilson/MED595/Qualitative_intro.pdf
- Sipayung, K. T. (2021). Comparison of Translation Techniques by Google Translate and U-Dictionary: How Differently Does Both Machine Translation Tools Perform in

Translating?JournalofEnglishLanguageStudies.doi:https://doi.org/10.31849/elsya.v3i3.7517

- Sirait, E. Y. (2023). The Analysis Of Translation Techniques (Indo-English) On Doa Bapa Kami. Journal Of Social Science Research. Retrieved from https://jinnovative.org/index.php/Innovative
- Tohari, A. (2017). Mythological Criticism Analysis in Novel. *Thesis : English Education*, 2. Retrieved from https://shorturl.at/Ebt5i
- Turovsky, B. (2016). *Ten Years of Google Translate*. America: Google Blog. Retrieved from https://blog.google/products/translate/ten-years-of-google-translate/
- Ünlü, N. M. (2018). *The Machines are Among Us : The State of Machine Translations in 2022*. Retrieved from Nimdzi: https://www.nimdzi.com/the-state-of-machine-translation-report/