A SEMANTIC ANALYSIS OF COMMON ERRORS: EVALUATING THE LIMITS OF ONLINE TRANSLATION APPLICATIONS

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ARTICLE INFO	ABSTRACT
	This article examines the evaluation of translation errors made by using online translation applications. Online translation applications are increasingly important for cross-language communication, but their quality often contains errors and defects. The research uses qualitative methods with a descriptive analysis approach, focusing on sixth-semester English students at the Indonesian Christian University of Toraja. The study consists of 10 Indonesian sentences translated into English using an online translation application. The results of semantic analysis show significant translation errors, including context-related errors, loss of nuance, and word choice errors. Inconsistencies in translation between sentences are also observed. The article emphasizes the importance of human skills in translation and double-checking translation results. It emphasizes the need for a deeper understanding of context and nuance. While online translation apps can be useful tools, careful and critical evaluation is still essential to ensure optimal quality in cross-language communication. *This is an open access article under the CC BY-SA license.*

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INTRODUCTION

In the contemporary era of globalization, the capacity to effectively communicate across linguistic (Crystal, 2003) and cultural barriers has become indispensable. The demand for precise translation between languages has significantly increased due to the growing prevalence of cross-cultural communication. The increasing need for it has resulted in the extensive utilization of automated translation technology (Hutchins, 2005. Urlaub & Dessein, 2022), including web-based translation programs (J. Hutchins, 2003), which have become indispensable resources for individuals, organizations, and institutions alike. These tools are specifically created to connect different languages, allowing for smooth communication in a multilingual setting.

Nevertheless, the process of translating is intrinsically intricate. Translation requires more than just the literal conversion of words from the source language (SL) to the target language (TL) (Newmark, 1988). It also involves accurately conveying the meaning, context (Baker, 2011), and subtle differences in subtlety. Translation, as defined by Nida and Taber (1982), is the act of providing the most similar natural representation of the source language's message in the target language, prioritizing both meaning and style. Translation, according to Catford (1965), is the act of substituting written content in one language with corresponding written content in another language. These definitions emphasize the two main aspects of translation: semantic precision and stylistic faithfulness.

The presence of translation applications can be one of the solutions to result translation because they offer advantages such as automated and faster processes. (Siumarlata et al., 2024) found that most students maintained that translation apps in learning are extremely useful in translating languages and increasing vocabulary. Translation apps also speed up the translation process, are simple to use, and some are free. Although there have been notable improvements in automated translation systems (O'Brien, 2012), there are still some ongoing issues. A critical concern is the presence of translation errors (House, 2015. Pym, 2010. Munday, 2016), which can result in misinterpretations, the spread of incorrect information, or the total distortion of the original message's meaning. Translation errors, as defined by Nord (1997), encompass any variations that hinder the target audience from utilizing the translation as intended. These inaccuracies can provide significant challenges in online translation technologies (Koehn, 2010), as they often produce translations instantly without the nuanced comprehension that a human translator could offer.

With the increasing dependence on these technologies, it is essential to evaluate their performance, specifically in terms of semantics (Liu & Zhang, 2020. Torres & Coto, 2018. Sennrich & Haddow, 2016). An exhaustive assessment of the error rates of online translation technologies might offer significant information into their capabilities and limitations. Developers can improve the overall accuracy and dependability of their products by detecting and addressing the most prevalent semantic faults in their algorithms (Bentivogli et al., 2016. Lo, 2019).

This article specifically examines the semantic analysis of errors that occur as a result of using online translation programs. Our objective is to examine the results of widely used translation systems like Google Translate, Bing Translator, Yandex, and I-Translate in order to identify the semantic difficulties they encounter. Additionally, we will suggest alternative ways to enhance their efficiency. The results of this investigation will aid in the advancement of advanced and precise automated translation technology, ultimately enabling more efficient cross-cultural communication in our progressively interconnected world.

Semantic Analysis

Semantic analysis is an essential component of linguistics and natural language processing (NLP) that encompasses the task of comprehending and deciphering the significance of words, phrases, sentences, and larger textual units (Jurafsky & Martin, 2009. Manning & Schütze, 1999. Allen, 1995. Pustejovsky, 1995). It is beyond simple translation or examination of sentence structure, instead emphasizing the deeper significance and circumstances in which language is employed. This technique is crucial for guaranteeing that translations or interpretations of text are not only grammatically accurate but also semantically precise (House, 2015. Nord, 1997. Venuti, 2008. Newmark, 1988).

Semantic analysis is crucial in translation as it guarantees the faithful representation of the source text's meaning in the translated version. Translations lacking semantic analysis may exhibit grammatical accuracy but suffer from semantic deficiencies, resulting in potential misinterpretations or the loss of intended significance. This is particularly crucial in situations where it is necessary to communicate cultural subtleties, colloquial phrases, or specialized terminology.

METHOD

Research Design

This examination is based on qualitative research, which is especially suitable for studying the complexities of human behavior and communication in specific circumstances. The researchers employed a descriptive strategy to analyze the characteristics and occurrence rate of translation errors produced by various online translation systems. A descriptive study design allows for a thorough examination of the real-world performance of these applications, revealing their strengths and weaknesses in practical usage situations.

This study used a qualitative methodology to understand and express the significance of translation faults in practical communication. According to Creswell (2013), qualitative methodology is a research method that focuses on understanding subjective, contextual, and detailed aspects of human behavior, experiences, and interactions through methods like interviews and content analysis. It offers valuable insights into the conditions and situations that influence these phenomena. Qualitative research in this environment enables researchers to notice the nuanced impact of translation errors on communication and meaning, which cannot be measured quantitatively.

Participants

Proficiency in both the source and target languages was a prerequisite for the participation of 9 sixth-semester English students. The students assessed and examined online translation resources. Selection allows participants to uncover subtle nuances in meaning and identify disparities in translation accuracy, which then informs the analysis.

Data collection

Participants were assigned translation tasks in order to gather data. Every participant was required to utilize Google Translate, Bing Translator, Yandex, and I-Translate to translate texts. The choice of using the application is based on the students' preferences. The selected texts for translation encompassed informal language, intricate grammatical formations, and culturally distinctive allusions. The presence of this diversity enabled the evaluation of each application's ability to handle various types of content. Following the translation process, participants evaluated the semantic accuracy, preservation of meaning, and intelligibility.

Data Analysis

The data analysis procedure systematically assessed the translation results of each online application. The identification and categorization of common translation faults were accomplished through the use of descriptive approaches. The original text was compared to these mistakes to assess the extent to which meaning was changed, lost, or twisted.

FINDING AND DISCUSSION

A test was given in the form of 10 similar sentences containing sentences in Indonesian that were translated into English using an online translation application to 10 respondents.

SL Text	:	Kejutan pesta Brady akan sungguh menarik jika kamu tidak memberitahukan rahasia ini
S1	:	*Surprise in Brady's Party will be interesting/great if don't tell him this secret*
S2		Brady's surprise party will be really interesting if you don't tell me this secret.
S3,S4,S5,S6,S9	:	Brady's surprise party will be really interesting if you don't tell this secret.
S7, S8	:	Brady's surprise party will be really interesting if you don't tell this secret

SL Text	:	Keindahan matahari terbenam, dengan rona cerahnya mewarnai langit, mengingatkan kita pada sifat fana kehidupan dan pentingnya menghargai setiap momen.

S1	:	*The beauty of sunset, with the bright hue coloring the sky, reminds us of the transitory nature of life and the importance of cherishing every moment.*
S2	:	The beauty of the sunset, with its bright hue coloring the sky, reminds us of the ephemeral nature of life and the importance of appreciating every moment.
S3,S4,S5,S6,S9	:	The beauty of a sunset, with its bright hue coloring the sky, reminds us of the transitory nature of life and the importance of cherishing every moment.
S7,S8	:	The beauty of a sunset, with its bright hues coloring the sky, reminds us of the ephemeral nature of life and the importance of cherishing every moment

SL Text	:	Aku orang yang sangat bertanggung jawab dan tidak pernah lepas tangan sedikitpun.
S1	:	*I am a very responsible person and never let go of one's hands.*
S2	:	I'm a very responsible person and never let go of a hand.
S3,S4,S5,S6,S9	:	I am a very responsible person and never let go of my hands one bit.
S7,S8	:	I'm a very responsible person and never take my hands off

SL Text	:	Teman baik seperti bintang yang bersinar terang dalam hidup kita, memberikan dukungan, tawa, dan persahabatan selama masa baik dan buruk
S1	:	*Good friends are like stars that shine brightly in our lives, giving support, laughter, and friendship during good times and bad.*
S2		
S3,S4,S5,S6,S9	:	Good friends are like stars that shine brightly in our lives, providing support, laughter, and companionship during good times and bad.

| S7,S8 | : | Good friends are like stars that shine brightly in our lives, providing support, laughter and companionship during good and bad times. |

SL Text	:	Surat ini sudah rusak dan sudah tidak dapat dibaca.
S1	:	*This letter has broken and cannot be read*
S2	:	This letter is damaged and can no longer be read
S3,S4,S5,S6,S9	:	This letter is damaged and can no longer be read.
S7,S8	:	This letter is damaged and unreadable

SL Text	:	Traveling to different countries allows us to immerse ourselves in different cultures, broaden our horizons and gain a deeper understanding of the world.
S1	:	*Traveling to different countries allows us to immerse ourselves in different cultures, broaden our knowledge and gain a deeper understanding of the world.*
S2	:	Traveling to different countries allows us to immerse ourselves in different cultures, broaden our horizons and gain a deeper understanding of the world.
S3,S4,S5,S6,S9	:	Traveling to different countries allows us to immerse ourselves in different cultures, broaden our horizons and gain a deeper understanding of the world.
S7,S8	:	Traveling to different countries allows us to immerse ourselves in different cultures, broaden our horizons, and gain a deeper understanding of the world

| **SL Text** | : | Saya tidak bisa keluar malam ini, saya merasa tidak enak badan sejak tadi pagi. |

S1	:	I can't go out tonight, I don't feel well since this morning.
S2	:	I can't go out tonight, I haven't been feeling well since this morning.
S3,S4,S5,S6,S9	:	I can't go out tonight, I don't feel well since this morning.
S7,S8	:	I can't go out tonight, I haven't felt well since this morning

SL Text	:	Aku mendapat balasan dari perbuatan yang telah aku perbuat, aku telah menyalin jawabanmu dari tes. Ngomong-ngomong terimakasih atas nilai "D" nya.
S1	:	*I got the reward for what I have done, I have copied your answer from the test. By the way, thanks for the "D" grade.*
S2	:	I have recompensed for what I have done, I have copied your answer from the test. Thanks for the "D" by the way.
S3,S4,S5,S6,S9	:	I got the reward for what I did, I have copied your answer from the test. By the way, thanks for the "D" grade.
S7,S8	:	I got what I deserved, I copied your answers from the test. By the way, thank you for the "D" grade

SL Text	:	Sangat penting untuk menjaga pola makan yang sehat dan berolahraga secara teratur untuk menjaga kesehatan fisik kita dan menjalani gaya hidup yang seimbang.
S1	:	*It is very important to maintain a healthy diet and exercise regularly to maintain our physical health and lead a balanced lifestyle.*
S2	:	It is very important to maintain a healthy diet and exercise regularly to maintain our physical health and lead a balanced lifestyle.
S3,S4,S5,S6,S9	:	It is very important to maintain a healthy diet and exercise regularly to maintain our physical health and lead a balanced lifestyle.

S7,S8	:	It is essential to maintain a healthy diet and exercise regularly to maintain our physical health and lead a balanced lifestyle.

SL Text	:	Saya suka berjalan-jalan di taman untuk menikmati keindahan alam dan menjernihkan pikiran dari tekanan kehidupan sehari-hari.
S1	:	*I like to go for walks in the park to enjoy the beauty of nature and clear my head from the pressures of everyday life.*
S2	:	I like to take a walk in the park to enjoy the beauty of nature and clear my mind from the stresses of everyday life
S3,S4,S5,S6,S9	:	I like to take walks in the park to enjoy the beauty of nature and clear my head from the stresses of everyday life.
S7,S8	:	I like to take a walk in the park to enjoy the beauty of nature and clear my mind from the stress of daily life

Based on the given statement, it may be inferred that the responses of the 10 students were unanimous on some points, while differing on others. Following the writers' observation of their usage of several translation tools. Student 1, student 3, 4, 5, 6, and 9 utilize the Google Translate application and achieve identical outcomes. All terms in the text, save for those used by student 1, were corrected due to their inappropriate nature. Student 2 use the Yandex translation service. Two students, utilize the translation Bing translation application. Consequently, there are various translation outcomes, albeit they bear a striking resemblance in structure.

We will analyze the typical errors that arise when using an online translation program, based on the results of our completed tests. The data analysis yields the following key findings:

However, there are several sentences that, when analyzed using semantics, are inappropriate, such as idioms and figurative language sentences. From the results of the analysis found, there are many errors that occur when using online translation applications when translating something. The errors are:

1. Errors in translating specific terms or phrases in certain contexts: In the test results, we find that translation applications often do not have sufficient domain knowledge (Wu et al., 2016) to translate specific terms or phrases in certain contexts. These results are inaccurate or imprecise translations in more specific contexts. Such as in idiom sentences and figurative language sentences where the translation results are not appropriate when using online translation applications (Baldwin & Kim, 2010. Hutchins & Somers, 1992).

2. Errors in maintaining the nuances and style of the original language: The findings in the test show that translation applications often ignore the nuances or styles of language that are typical in the source language (Arnold et al., 1994. Pym, 2010). The resulting translation tends to be too formal or too rigid, not reflecting the original style or tone of the text. This can take away the essence and beauty of the original text.

3. Error in translating idiomatic phrases

    Errors in translating idiomatic phrases: Based on the test results, researchers found that translation applications often interpret idiomatic phrases literally without paying attention to the context (Federico et al., 2008) as Turner (2021) examines that modern translation systems, including AI-based ones, often fail to properly interpret idiomatic language. This results in translations that are inaccurate and do not match the actual meaning. The example that appeared in the test was a literal translation of the phrase

    "Kejutan pesta Brady akan sungguh menarik jika kamu tidak memberitahukan rahasia ini" which is irrelevant to the original meaning. Which, if translated in idiomatic form as follows

    "Brady's surprise party is going to be great if you don't let the cat out of the bag".

    However, according to the results of the research which were translated by 10 students the results did not match the actual meaning, what was produced was

    "Brady's surprise party will be really interesting if you don't tell this secret"

    which actually meant nothing, or in the sentence

    "Surat ini sudah rusak dan sudah tidak dapat dibaca"

    then generated by an online translation application

    "This letter has been broken and cannot be read" or *"This letter is damaged and can no longer be read"* or *"This letter is damaged and unreadable"*

    which actually means

    "This letter has seen better days and is unreadable".

    From the results of this study, it can be concluded that online translation applications are unable to translate idioms.

4. Errors in translating *Majas* (figure of speech)

    Based on the test results, the researcher found that translation applications often interpret figurative language phrases literally without paying attention to the context (J. Hutchins, 2005b. Specia & Farzindar, 2010) just like translation tools, according to Díaz-Cintas and Remael (2020), when dealing with figurative language in audiovisual media, where context is crucial for accurate translation. This results in translations that are inaccurate and do not match the actual meaning. The point is that the meaning to be conveyed is not conveyed properly.

    The example that appears in the test that the researcher found is

    "Aku orang yang sangat bertanggung jawab dan tidak pernah lepas tangan sedikitpun"

    this sentence is a connotative figure of speech which if translated correctly will produce

    "I am very responsible and never wash my hands even for a bits".

However, from the results of the research conducted, there is

"*I am a very responsible person and never let go of my hands one bit.*"

Letting go of the hand in this sentence is translated literally in the menorah to

"*let go of the hand*"

actually. Which is the same as

"*I am a very responsible person and never let go of one's hands*",

only has a few additional words in it to improve grammar in writing. And it's the same with the words

"*I'm a very responsible person and never take my hands off*".

In the sentence

"*Saya tidak bisa keluar malam ini, saya merasa tidak enak badan sejak tadi pagi*"

which is a figure of speech which means

"*I can't go out tonight, I feel under the weather since morning*".

According to the results of the study, there were 10 student answers which had almost the same actual meaning, but only the word choices were different, such as:

"*I can't go out tonight, I don't feel well since this morning*" or "*I can't go out tonight.*", "*I haven't been feeling well since this morning*" and or "*I can't go out tonight, I haven't felt well since this morning*".

The words *feel well, feeling well, and felt well* actually have the same meaning but are inappropriately used in the context of the given sentence, therefore the sentence with *fell under the weather* is the most appropriate according to the sentence.

Upon conducting a comprehensive study, the test findings indicate the presence of some prevalent faults frequently seen when utilizing online translation applications. These inaccuracies can have a detrimental impact on the quality of the translation, particularly in situations that need a high level of precision and lucidity. When translating idiomatic sentences with figurative language, there may be instances where the sentences do not accurately convey their intended meaning (Siumarlata & Sallata, 2024). In this instance, it can be asserted that the online translation application lacks the capability to translate all available sentences. Hence, it is crucial to take into account the constraints and deficiencies of online translation applications while using them, particularly in circumstances that demand precise and exact translation.

CONCLUSION

The previous section's findings and discussion lead to the conclusion that when using online translation applications, sixth-semester English department students commonly make translation errors in specific terms or phrases within certain contexts, fail to maintain the nuances and style of the original language, and produce translation errors in idiomatic and figurative sentences. Online translation tools often fail to accurately represent the true meaning of idiomatic and metaphorical translations, resulting in erroneous results.

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