

The Comparison of Subtitle Translation of Barbie Movie 2023 Using Google Translate and NiuTrans

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ABSTRACT

This study is a qualitative study in order to compare the subtitle translation of Barbie Movie 2023 using Google Translate and NiuTrans. The objectives of this study are to find out the similarities and differences in meaning between two machine translations. This study used Bowker (2023) and Newmark (1988). The data were collected from the subtitle of Barbie movie 2023. The writer found four categories based on meaning from comparing Google Translate and NiuTrans. There are correct, less correct, not correct, and differences meaning translation results. In the findings were found the same translation and different translations between both Google Translate and NiuTrans. Both also have different meanings in translating the source language. In conclusion, machine translation is not always correct, we still need human translators in translating.

Keywords: Google Translate, NiuTrans, subtitle, translation

INTRODUCTION

Translation is the process of transferring the content of a written text from the source language (SL) to the target language (TL). The meaning of transferring is not that simple; the definition of translation is that 'To translate means to produce a text in a target setting for a target purpose and target addresses in target circumstances' (Vermeer 1987:29). There are many things that need to be paid attention to while translating, such as language, meaning, strategies, etc. Subtitling is a written translation in the dialogue and usually presented in a couple of lines at the bottom or sometimes at the top of the screen while the sound plays the original language. Bowker (2023) mentioned that subtitles have the potential to be translated using automatic machine translation. Bowker (2023) added that using machine translation alone to translate subtitles is highly unlikely to produce results that will be well-received by target-language audiences.

Artificial Intelligence (AI) is a human-like machine that has the ability to perform human works, for instance reasoning, learning, planning, and creativity. It enables the support system to identify the needs of the environment. In machine translation, Artificial Intelligent (AI) is a tool for translating to and from foreign languages around the world. AI language-based translation platform from Google can help students do their assignments better because this machine is able to translate difficult words in Arabic into English and vice versa (Kolhar & Alameen, 2021). Machine Translation (MT) is commonly used by foreign language learners because this machine is useful to get the meaning of words in a foreign language easily. This machine is used to get instant results from the translating process. The examples of MT are Google Translate (GT), DeepL, Microsoft, Amazon, Yandex, Modern MT Static, GPT-4, ChatGPT, PROMT, Youdao, Baidu, NTT COTOHA, SYSTRAN, GPT-3, NiuTrans, ALibaba E-commerce, Kawamura by NICT, Tancent, Naver, Alibaba General, Ubiquis, Mirai, SAP, Oracle, and Ella (BERTScore, 2023). The diagram below is to measure how popular the machine translations are based on the BERTScore, a metric for automatic evaluation of machine translation that calculates the similarity between a machine translation output and a reference translation using sentence representation. BERTScore was invented as an improvement on n-gram-based metrics like BLEU.

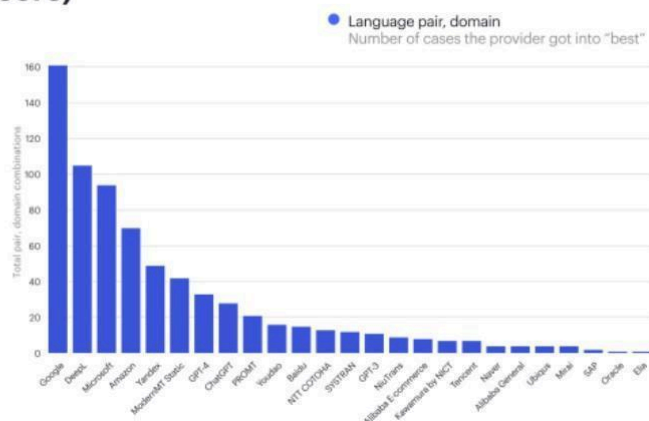
Herlina: The Comparison of Subtitle Translation of Barbie Movie 2023 Using Google Translate and NiuTrans

B.5 Top Performing MT Providers (BERTScore)

22 language pairs, 9 domains

Some providers were tested only in their specific domains and language pairs:

- HiThink RoyalFlush specializes in en-zh translation in the Finance domain
- TREBE specializes in Iberian languages, and was used for en-es and es-en translation
- SAP is intended to be used with "SAP-specific" tasks and is not to be compared with the genetic stock models
- Out of different ModernMT models, the static model was evaluated



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The State of Machine Translation 2023

64 of 91

This paper aims to compare the translation of machine translation (MT) based on meaning. The writer uses Google Translate (GT) as the most popular machine translation that can translate 133 languages and NiuTrans that can translate 384 language varieties. There are many reasons why NiuTrans is chosen in this study. First, Indonesian language is not always available in all machine translation. There are some MTs that do not support Indonesian language such as Kawamura by NICT, Tencent, Naver, Ubique, Oracle, Ella (Source: <https://machinetranslate.org/>). Next, not all machine translations that are free, such as Mirai and Tencent, are less popular than NiuTrans; therefore, the writer decided not to use them in this study. Last, some of the machine translations need registration before using it and the website has a bug which prevents people from using them easily.

This study analyzes the subtitles from the Barbie (2023) movie. This movie is chosen because it can be watched by any age and has a cultural context. This study focuses on the script that is translated to Indonesian language using Google Translate and NiuTrans. The writer limits the analysis using the first thirty minutes scenes of the Barbie movie since this can represent the whole movie. There are 269 utterances from the first thirty minutes of Barbie (2023) movie. The classification of the meaning is based on the translation theory by Bowker (2023) and Newmark (1988).

Theoretical framework of this study uses the translation theory from Bowker (2023) and Newmark (1988). According to Bowker (2023), translation is usually presented as a spectrum. The one side has a literal translation while the other side has free translation. A literal translation is aimed to keep as much of the grammatical or structural form of the source text as possible while also conveying the meaning. Literal translations often take a largely word-for-word approach or use a word order that is based on the underlying source text. In contrast, a free translation is aimed to convey the meaning of the source text but does so in a way that is far less constrained by the form found in the source text. Meanwhile, according to Newmark (1988), there are eight translation methods: word-for-word translation, literal translation, faithful translation, adaptation, free translation, idiomatic translation, semantic translation, communicative translation.

Word-for-word translation is when the target language translated straight follows the source language and is not based on the context of the source language. Literal translation is when the target language converts from the grammatical constructions of source language, but the lexical words again translated singly and not based on the context. Faithful translation is when the target language attempts to reproduce contextual meaning from the source language and within the constraints of the target language's grammatical structures. Semantic translation is when the target language focuses more on the aesthetic value (that is, the beautiful and natural sound) of the SL text, compromising on

'meaning' where appropriate so that no assonance, word-play or repetition jars in the finished version. Adaptation is the freest form of translation. Adaptation is when there is modification of the idea from the source language and becomes acceptable to the target language. Free translation is when the target language is paraphrased much longer than the source language. This method maintains the content but lets the form change because of the paraphrasing. Idiomatic translation is when the target language changes the meaning in source language into target language by using idioms. Finally, communicative translation is when the target language exactly communicates the source text in both the context and language so the content is acceptable for the readers.

METHOD

This study used a qualitative method. The source of data of this study are utterances from the conversations in the Barbie movie (2023). The utterances were translated using Google Translate (GT) and NiuTrans (NT) in order to know the differences in the translations, especially the meaning, generated by both AIs.

FINDINGS AND DISCUSSION

The findings and the discussion are divided in four parts. The findings covered the comparison of the translation meaning between Google Translate and NiuTrans. The results are presented in the following headings: (1) Correct Meaning, the same translation and different translations; (2) Less Correct Meaning, the same translation and different translations; (3) Not Correct Meaning, the same translations and different translations; and (4) Different Meaning Between Google Translate and NiuTrans.

Correct Meaning

This classification provides the correct meaning from Google Translate and NiuTrans translation results. The writer put the phrases from the source text and both AIs generated translation which consider the correct meaning based on the context. The correct translations that were generated by AIs are mostly simple phrases which consist of two or three words. Not only that, the writer finds out that common words that are used every day by everyone are likely to have the correct translation meaning by both AIs.

Table 1: Correct Meaning on Google Translate and NiuTrans - Same Translation

No	Source Language	Google Translate	NiuTrans
13.	"How come you're so amazing?"	"Kenapa kamu begitu luar biasa?"	"Kenapa kamu begitu luar biasa?"

Both AIs used idiomatic translation in the correct way. "**How come**" is used to ask about the reason for something. "**How come**" is an informal phrase when asking how or why something happened or is the case. In the context, Barbies are having an awardee night and Barbie Ritu is a reporter and she was asking some questions to Barbies. The translation "*kenapa kamu*" accurately used in the context.

Table2: Correct Meaning on Google Translate and NiuTrans - Different Translation

No	Source Language	Google Translate	NiuTrans
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**Herlina: The Comparison of Subtitle Translation of Barbie Movie 2023
Using Google Translate and NiuTrans**

1.	(V.O.): “ Since the beginning of time , since the first little girl ever existed, there have been dolls.”	“ <i>Sejak awal mula, sejak gadis kecil pertama ada, sudah ada boneka.</i> ”	“ <i>Sejak awal waktu, sejak gadis kecil pertama yang ada, telah ada boneka.</i> ”
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Both AIs translate in the correct way. “**Since the beginning of time**” refers to for as long as can be remembered; for an extremely long time, it is often used for hyperbolic or humorous effect. In the context of the source text, the narrator explained the beginning of the story. This is a common thing whereas a narrator reads the opening to the film. Both AIs translated the meaning of “**since the beginning of time**” correctly although GT and NT had differences in translating “time”, in which GT used “*mula*” and NT used “*waktu*”.

Less Correct Meaning

This classification provides the correct meaning from Google Translate and NiuTrans translation results. The writer put the phrases from the source text and both AI generated which consider the less correct meaning based on the context. This part presents the examples from Google Translate and NiuTrans.

Table 3: Less Correct Meaning - Same Translation

No	Source Language	Google Translate	NiuTrans
22	“This makes me emotional! And I’m expressing it. I have no difficulty holding both logic and feeling at the same time. It does not diminish my powers, it expands them.”	<i>Ini membuatku emosional! Dan saya mengungkapkannya. Saya tidak mengalami kesulitan dalam memegang logika dan perasaan pada saat yang bersamaan. Itu tidak mengurangi kekuatanku, itu memperluasnya.</i>	<i>Ini membuat saya emosional! Dan sayamengungkapkannya. Saya tidak kesulitan memegang logika dan perasaan pada saat yang sama. Itu tidak mengurangi kekuatan saya, itu memperluas mereka.</i>

Both AIs used word-for-word translation. The phrase “**holding both logic and feeling**” translated by Google Translate and NiuTrans were less correct. “**Holding both logic and feeling**” refers to the ability to maintain the logic and feeling when facing situations or making decisions. The word “holding” does not mean touch or keep things. In the context, the scene was during award night and Barbie gave a speech after getting the nobel prize. The speech is full of confidence in expressing Barbie’s power. Both AIs have the same translation “*memegang logika dan perasaan*” which can be replaced with “*menahan logika dan perasaan*”.

Table 4: Less Correct Meaning - Different Translation

No	Source Language	Google Translate	NiuTrans
11.	(V.O.): “(butting in) Midge was Barbie’s pregnant friend. Oh let’s not show Midge actually... She was discontinued by Mattel because a pregnant	“(<i>menyeruduk</i>) Midge adalah teman Barbie yang sedang hamil. Oh, jangan tunjukkan Midge sebenarnya... Dia dihentikan oleh Mattel karena boneka	“(<i>masuk</i>) Midge adalah teman Barbie yang hamil. Oh jangan tunjukkan Midge sebenarnya... Dia dihentikan oleh Mattel karena boneka hamil terlalu aneh. Bagaimanapun... Barbie

doll is just too weird. Anyway... Barbie has another BIG day ahead of her.”	<i>hamil terlalu aneh. Pokoknya... Barbie punya hari BESAR lainnya di depannya.”</i>	<i>memiliki hari BESAR lagi di depannya.”</i>
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Both AIs used idiomatic translation but were less correct in translating the meaning from to interrupt a conversation or activity in a way that is often considered rude. The phrase "**butting in**" refers to interrupting a conversation or activity in a way that is often considered rude or intrusive. Both AIs have different translations, GT "*menyeruduk*" and NT "*masuk*". In the context, the narrator continued the story after the soundtrack was playing. The translation "**butting in**" can be replaced with "*Menyela*"

Not Correct Meaning

This classification provides the correct meaning from Google Translate and NiuTrans translation results. The writer put the phrases from the source text and both AI generated which consider the incorrect meaning based on the context.

Table 5: Not Correct Meaning - Same Translation

No	Source Language	Google Translate	NiuTrans
9.	(V.O.): “After all, they're living in Barbie Land. Who am I to burst their bubble ? And here is one of those Barbies now, living her best day every day.”	<i>“Bagaimanapun, mereka tinggal di Barbie Land. Siapakah saya yang bisa memecahkan gelembung mereka? Dan inilah salah satu Barbie sekarang, menjalani hari terbaiknya setiap hari.”</i>	<i>“Lagi pula, mereka tinggal di Barbie Land. Siapa aku untuk meledakkan gelembung mereka? Dan inilah salah satu Barbie sekarang, menjalani hari terbaiknya setiap hari.”</i>

Both translations translated “**Burst their bubble**” incorrectly. Both AIs used word-for-word translation which is not correct in delivering the meaning. “**Burst their bubble**” means to say or do something that shows someone that their beliefs are false, or that what they want to happen will not happen. **Burst their bubble** can be the idiom to destroy their fantasy or illusion of something. In the context of source text, the narrator explained that Barbies are living in Barbie Land and it is continued to state that who is the narrator who can “**burst their bubbles**”? Next, the narrator continued stating that those barbies are living their best day every day. The translation to the idiom “**burst their bubbles**” can be replaced using “*Menyadarkan dari ilusi mereka*”, “*Menghancurkan harapan mereka*” or “*Membuat mereka kecewa*”.

Example 6: Not Correct Meaning - Different Translations

No	Source Language	Google Translate	NiuTrans
56	KEN SIMU: “Oh, I’ll beach-off with you any day, Ken!”	<i>“Oh, aku akan pergi ke pantai bersamamu kapan saja, Ken!”</i>	<i>“Oh, aku akan berpantai denganmu kapan saja, Ken!”</i>

Both AI used word-for-word translation which was incorrectly transferring the meaning. “**Beach-off**” is playful, humorous, referring to a competition or showdown on the beach. In the context

of the movie, it is used to describe a humorous and exaggerated rivalry or contest among characters. In the context of source text, Kens was on the beach trying to surf but he failed. Ken Simu underestimated Ken Ryan Gosling in front of Barbie, so Ken wanted to have a battle or compete with Ken Simu. In this context, “**beach-off**” means to compete or having a battle. The translation to the idiom “**beach-off**” can be replaced using “*bertanding*” or “*melawan*”.

Different Meaning Between Google Translate And NiuTrans

This classification provides the correct meaning from Google Translate and NiuTrans translation results. The writer put the phrases from the source text and both AI generated which have different meanings based on the context. This table proposes to differentiate between the AI that has the correct translation and the incorrect one based on the same source text.

Table 7: Correct Meaning on Google Translate and Not Correct Meaning on NiuTrans

No	Source Language	Google Translate	NiuTrans
4.	(V.O.): “All of these women are Barbie, and Barbie is all of these women. She might have started out as just a lady in a bathing suit, but she became so much more. ”	“ <i>Semua wanita ini adalah Barbie, dan Barbie adalah semua wanita ini. Dia mungkin awalnya hanya seorang wanita dengan pakaian renang, tapi dia menjadi lebih dari itu.</i> ”	“ <i>Semua wanita ini adalah Barbie, dan Barbie adalah semua wanita ini. Dia mungkin awalnya hanya sebagai seorang wanita dengan pakaian renang, tapi dia menjadi lebih banyak lagi.</i> ”

Google Translate has a correct meaning, while NiuTrans is less accurate in translating “**she became so much more**”. Google Translate used literal translation method, while NiuTrans use word-for-word translation method. The phrase “**she became so much more**” in this context refers to the evolution of Barbie which is more than their original role. The narrator explained that Barbie was just a doll or lady in a bathing suit but then they transformed into a symbol that encompasses a wide variety of roles, professions, and identities. Google Translate transferred the phrase correctly into its meaning, while NiuTrans sounds less accurate in transferring the meaning. NiuTrans “*dia menjadi lebih banyak lagi*” would refer to the number of the Barbie instead the symbol and role variety of the Barbie.

Table 8: Correct Meaning on NiuTrans and Not Correct Meaning on Google Translate

No	Source Language	Google Translate	NiuTrans
26.	HELEN MIRREN (V.O.): “Barbie has a great day every day. But Ken only has a great day if Barbie looks at him.”	“ <i>Barbie menjalani hari yang menyenangkan setiap hari. Tapi Ken hanya akan bersenang-senang jika Barbie memperhatikannya.</i> ”	“ <i>Barbie memiliki hari yang menyenangkan setiap hari. Tapi Ken hanya memiliki hari yang menyenangkan jika Barbie memandangnya.</i> ”

NiuTrans has a correct meaning, while Google Translate Is less accurate in translating “**has a great day**”. Google Translate used an idiomatic translation method, while NiuTrans use word-for-word translation method. The phrase “**has a great day**” used to say one hopes the person spoken to will have an enjoyable day. In the context, the narrator explained that Ken seems interested in Barbie which said “but Ken only has a great day if Barbie looks at him” which means Ken's happiness seems to depend

entirely on Barbie's attention or approval, implying that his sense of self and joy is tied to how Barbie perceives or acknowledges him.

CONCLUSION

From the findings the writer concluded that machine translations make mistakes. In the findings were found the same translation and different translations between both Google Translate and NiuTrans. Both also have different meanings in translating the source language. Not only that, the writer also found correct meaning on Google Translate - not correct meaning on NiuTrans and correct meaning on NiuTrans - not correct meaning on Google Translate. From the findings, the writer concluded that Google Translate still had mistaken or incorrect meaning although it is more popular and used by many people than NiuTrans.

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