

## INDONESIAN USER PERCEPTION ON THE USEFULNESS OF AUTO-TRANSLATE FEATURE ON SOCIAL MEDIA

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### ABSTRACT

This paper focuses on the user perception of their experience in using the auto-translate feature on social media. A mixed-method is employed in this study to gain quantitative and qualitative results and provide a more in-depth understanding of the analysis, with an online questionnaire as the research instrument. In order to reach a broader audience, snowball sampling is used since there are no specific criteria for the subject target. The majority of the respondents are women with bachelor's degrees aged 17-28. There are three aspects of assessment on the questionnaire following Nababan's theory: accuracy, acceptability, and readability. The findings showed that the result of the auto-translate feature on social media has good accuracy, moderate readability, and is very acceptable. Meanwhile, the shortcomings of this feature are lack of context understanding, mistranslation due to wrong diction, and grammar updates.

### Introduction

The emergence of machine translation in the past few decades has brought a lot of improvement in the multilingual aspect in the multicultural virtual interaction platforms on the internet. "The term Machine Translation (MT) refers to computerized systems responsible for the production of translations with or without human assistance. The term computer-aided translation (CAT) is sometimes used to cover all these computer-based translation systems" (Hutchins, 2012).

In 2006, Google Translate, the most commonly used online machine translation, was launched for the first time and until now it serves 103 languages. Due to its usefulness, many other online machine translations were also launched, such as Bing Translator, in 2009. As social media started to get popular and there is a lot of social interaction going on in cyberspace, the use of machine translation is also rapidly increasing due to the demand for multilingual interaction.

One service that social media offers to its users is the opportunity to communicate with one another in a way divorced from traditional prejudices (Hossain & Aydin, 2011). As platforms where the users come from various cultural backgrounds, social media has a huge potential in information sharing with only language as the barrier.

Recently, social media has its own machine translation. In this case, the 3 popular social media that are widely used around the world: Twitter, Instagram, and Facebook. The data on 2021 from globalkhabari.com shows that Facebook has 1.71 billion users, Instagram has 400 million users, and Twitter has 320 million users. The researcher believe that with the number of users reaching hundreds of millions, the information conveyed through social media every day varies. The existence of this feature provides automatic translation of the information in the Instagram caption, Twitter tweets, and Facebook status, breaking the language barrier in information transfer.

With the high number of users, this feature needs to be analyzed not only about the machine translation itself, but also on the user perception. Therefore, this research

aims to give a deeper analysis of the new technology feature in translation research, which is rarely researched because it is a new development in online translation topics. Also, the practical significance of this study aims to give reliable data for machine translation developers and communities about the output quality, which in turn, could contribute to the feature advancement.

MT on social media is a new feature and not much research has been conducted yet. Some who have researched it only focus on MT development and no research has been conducted regarding user perception in the translation results. One of the studies on Machine Translation for Cross-Language Social Media conducted by Carrera, Beregovaya, Yanishevsky (2009) examined in depth the quality of the translation results on the auto-translate feature on social media.

Another study by Fadilah (2017) on semantic errors in Instagram machine translation also examines the output of this feature. However, both of them only focus on quality without any correlation with social media user perception. This study aims to fill the gap of previous studies to answer how user perception toward the quality of machine translation on social media translation results. The two main questions in this study are, first, “Does the quality of auto translate features in social media matter for users' understanding?” aiming for the quantitative result, and second, “How useful is the auto translation feature in social media for users?” aiming for the qualitative result. This research is limited to only 3 social media: Instagram, Twitter, and Facebook as the data platforms.

### **Research Method**

This research uses Mixed Methods Research. Mixed Methods Research is a research design based on assumptions. This method assumes that by demonstrating or offering instructions on how to gather and analyze data and mix quantitative and qualitative approaches during various stages of the research process, this method will be successful.

The sampling technique used is snowball sampling with distributing online questionnaires on social media and asking the participant to distribute the questionnaire to their circle or community until sufficient information is obtained.

Data collection techniques are carried out by giving a set of questions or written statements to respondents to answer (Sugiyono, 2012). This study uses a questionnaire form with closed-ended questions and open-ended questions. In this research, the questionnaire was distributed online at the link <https://forms.gle/yVasnsrL6P6EKfLj7>. The researcher uploaded the questionnaire link on social media accounts and allowed respondents to spread it to attract more respondents.

For the purposes of quantitative analysis, it is scored using the Likert scale:

Score 1 = “Sangat Tidak Setuju”

Score 2 = “Setuju”

Score 3 = “Sangat Setuju”

Adapting from Nababan, et al. (2012), each of the translation quality assessment instruments consists of three parts. The first section shows the translation categories. The second part is a score or number on a scale of 1 to 3, which is ordered according to an inverted pyramid. The higher the quality of a translation, the higher scores or numbers it

gets and vice versa. The third part is the qualitative parameters of each category of translation. The three instruments are presented below.

<b>Translation Category</b>	<b>Score</b>	<b>Qualitative Parameters</b>
Very Accurate	3	The meaning of words, technical terms, phrases, clauses, sentences or source language texts is accurately transferred into the target language; there is absolutely no distortion of meaning
Accurate	2	The majority of the meanings of words, technical terms, phrases, clauses, sentences, and source language texts have been accurately translated. However, there are still meaning distortions, confusing translations, and omitted meanings, all of which compromise the message's integrity.
Not Accurate	1	The meanings of words, technical terms, phrases, clauses, sentences or source language texts are inaccurately transferred into the target language or deleted.

**Table 1.** Translation Accuracy Assessment Instrument

<b>Translation Category</b>	<b>Score</b>	<b>Qualitative Parameters</b>
Very Acceptable	3	Translation feels natural; the technical terms used are commonly used and familiar to the reader; phrases, clauses and sentences used are in accordance with the rules of the Indonesian language
Acceptable	2	In general, the translation feels natural; however there is a slight problem with the use of technical terms or a few grammatical errors.
Unacceptable	1	The translation is not natural or feels like a translation work; the technical terms used are unfamiliar and unfamiliar to the reader; phrases, clauses and sentences used are not in accordance with the rules of the Indonesian language

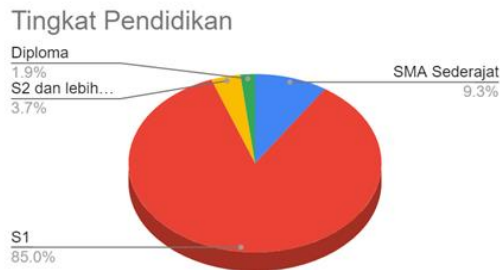
**Table 2.** Translation Acceptability Rate Assessment Instrument

<b>Translation Category</b>	<b>Score</b>	<b>Qualitative Parameters</b>
High Readability	3	Words, technical terms, phrases, clauses, sentences or translated texts can be easily understood by readers.
Moderate Readability	2	In general, the translation can be understood by the reader; but there are certain passages that must be read more than once to understand the translation.
Low Readability	1	The translation is difficult for readers to understand

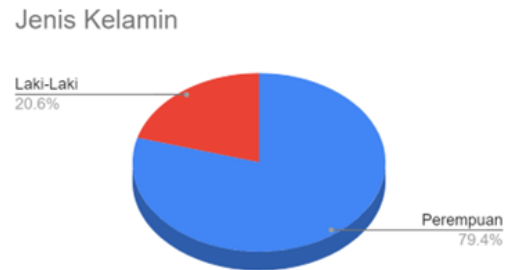
**Table 3.** Translation Readability Level Assessment Instrument

**Result and Discussion**

The study results are presented in graphs, tables, and descriptive analysis. There are 108 respondents in total. Below are some charts explaining their education level, gender, and age mapping.



**Chart 1.** The education level of the respondents



**Chart 2.** The gender of the respondents



**Chart 3.** The age of the respondents

In this study, 85% of the participants come from undergraduate students or bachelor degree holder. The gender are 20% men and 80% women, the gap is quite significant. Meanwhile, the age of the respondents ranging from 17 to 28 with one senior aged 45. The dominant number are in age 18 and 19. From the charts above, it has proven some theories in previous studies.

Survey response and non-response research have revealed that there are trends in who replies to surveys, at least when using typical survey administration methods. People who are more educated and rich are more likely to engage in surveys than those who are less educated and affluent (Curtin, Presser, and Singer, 2000; Goyder, Warriner, & Miller, 2002; Singer, van Hoewyk, & Maher, 2000), women are more likely to participate than men (Curtin et al 2000; Moore & Tarnai, 2002; Singer et al 2000), younger people are more likely to participate than older people (Goyder, 1986; Moore & Tarnai, 2002).

**Quantitative Data Findings and Analysis**

In the questionnaire, there are 14 questions that are divided into three translation aspects based on theory of Nababan (2012): Accuracy, Acceptability, and Readability, aiming for quantitative answers from the respondents. Below are the results of each question in charts to show the percentage.

Accuracy Aspect

Translation Category	Percentage
Very Acceptable	42%
Acceptable	38%
Unacceptable	20%

**Table 4.** Results of Accuracy Aspect in Auto-translate Feature

Based on Nababan (2012), the qualitative parameter for translation accuracy dominating in the second option is considered 'Accurate' with an explanation of 'Most of the meanings of words, technical terms, phrases, clauses, sentences or source language texts have been accurately transferred into the target language. However, there are still meaning distortions or double meaning translations (ambiguous) or there are omitted meanings, which disrupt the integrity of the message.'

Nababan (2012) also states that a quality translation is one that transmits information or messages from SL correctly, accurately, and honestly, according to the writer's intention. Nothing is left out, nothing is added, and nothing is different about the information presented. The translation work is easy to grasp and in agreement with the message it conveys. The goal of translation is to accurately communicate meaning. A translator (or machine translation) must not ignore, add to, or lessen the meaning contained in SL simply because it is influenced by the formal form of TL. Translation is not intended to create new works or writings; rather, it is intended to serve as a link between SL writer and TL users. To put it another way, a translator does not simply condense a text into a new article; rather, the translator must be able to act as a communication facilitator in order to effectively communicate messages from SL to TL.

Two out of three of the participants chose to agree with the accuracy aspect of the results of the social media auto translate feature. Surely this number has shown that, in terms of accuracy, this feature is reliable, despite some imperfections. This finding is not in line with the statement by Aikan and Balan (2011) that stated that the translation machine can be low of accuracy system because the translation machine translates the sentences word-by-word, and sometimes, it can be one word that has two meanings and vice versa. In addition, the translation machine does not have the intelligence like human, and it cannot adjust the point of the paragraph as the translation machine only translates the sentence word-by-word. Following this, it can also make the sentences to be the grammatical errors. Meanwhile, in this study, the number above has shown that in 2022, the technology has advanced and the accuracy has increased compared to the study by Aikan and Balan conducted in 2011.

Acceptability Aspect

Translation Category	Percentage
Very Acceptable	42%
Acceptable	38%

Unacceptable	20%
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**Table 5.** Results of Acceptability Aspect in Auto-translate Feature

Based on Nababan (2012), the majority chose Very Acceptable with the description of "Translation feels natural; the technical terms used are commonly used and familiar to the reader; phrases, clauses and sentences used are in accordance with the rules of the Indonesian language."

Acceptance causes the translated content in TL to become more prevalent and natural in accordance with the rules and conventions of the TL readers' language. The target reader must accept and comprehend the text. The content contained in the phrases that make up a translated text will be understood by readers, who will then apply it to the context of the text's circumstance. The phrase acceptability refers to the translation's conformance to the target language's linguistic rules and textual standards. It implies that a translation will be adequate if the norms to be observed are derived from the source culture and language, but a translation will be acceptable if the norms are derived from the target culture and language.

The majority of respondents in the table above chose to agree in the acceptability aspect. This number is certainly high. According to Nababan (2012), the translation is more acceptable in the target language native community. This acceptance comes from the use of terminology or equivalent factors which are reasonable and widely used so that native readers feel familiar. In addition to diction, grammar also plays an important role in readers' acceptance. The number above shows that the reader is familiar with the phrases, clauses, and sentence structure in the translation results of the auto-translate feature.

#### Readability Aspect

Translation Category	Percentage
High Readability	21%
Moderate Readability	56%
Low Readability	23%

**Table 6.** Results of Readability Aspect in Auto-translate Feature

Based on Nababan (2012), the Readability Level of social media auto-translation feature mostly falls into Moderate Readable, which is Moderate Readability, with a description "In general, the translation can be understood by the reader; but there are certain passages that must be read more than once to understand the translation."

The degree to which a piece of writing can be read and comprehended is known as readability. A translated text is considered to have a high level of readability if it is simple to read and the reader can understand the message, regardless of whether the message is compatible with the message in the SL text. In other terms, the reader is a subject who determines whether or not a piece is readable.

In social media, written text plays a huge role in delivering intent, along with tone of the overall message. Readability should be the bigger concern here since the virtual world consists of million of people from various background and education level. The aim of a good translation is conveying the exact message from the writer to the audience

and omitting the barrier of age, intelligence level, etc. The number above shows that the respondent of this study expressed a certainty to the readability level of the translation output in auto translate feature on social media.

Preference

Respondent Preference	Percentage
Highly Preferable	23%
Preferable	40%
Not Preferable	37%

**Table 7.** Respondent Preference Results

Based on the results on Table 1 to Table 3, the respondents show their preference in using auto-translate feature. Despite some shortcomings, this feature is considered useful with 40%+23% of participant prefer to use this feature to comprehend what they read on social media.

Asmawati (2020) conducted study regarding the benefit of using this feature on students and found two benefits. One of the benefit is improving Vocabulary. Use of vocabulary had been found that using auto-translate feature in social media facilitated the participant in learning English by improving vocabulary. Her participant felt that by using auto translate feature in social media could help them to improve vocabulary mastery. Hence, the participant found new vocabulary indirectly by reading the post which had already been translated.

Similarly, this study supports Asmawati’s findings by showing that majority of respondents gain new knowledge and learn new things and words from using this feature.

In conclusion, this quantitative analysis provides answered for first research question "Does the quality of auto translate features in social media matter for users' understanding?" Yes it is. The answer is supported with 67% Accurate, 42% Very Acceptable, 56% Moderate Readability, and 47% Preferable. In addition, according to the charts, this usefulness mainly benefits women with bachelor degree aged 17-28.

**Qualitative Data Findings and Analysis**

There are six statements in the questionnaire (the detailed answers are presented in the Appendix) aiming to get qualitative result and seek answers respondents on why it is not helpful. The researcher assume that the explanation for the Yes answer has already been covered in the discussion on the qualitative section. Here the researcher explains about the reasons why the respondents chose No.

Statement number 15 is “Auto translate translation results can help me understand the post”. 88% answered Yes, and 12% answered No. Some answers of why the respondents chose No include ambiguity, bad grammar or structure, missing context, mistranslation, and understanding difficulty. Those answers points out the shortcoming of current capability of this feature.

Statement number 16 is “The quality of the translation results produced in the auto translate feature on social media is very good”. 43% answered Yes, 57% answered No. Some answers of why the respondents chose No include ambiguity, bad grammar or structure, missing context, mistranslation, and understanding difficulty, too rigid/formal,

failed translation on idiom and slangs, and some words are not translated on some occasions.

Statement number 17 is “I really like the auto translate feature on social media without any slight drawback”. 42% answered Yes, 58% answered No. Some answers of why the respondents chose No include low accuracy, unstandardized translation, low acceptability, ambiguity, bad grammar or structure, missing context.

Statement number 18 is “The grammar in the results of the auto translate feature on social media has no errors at all”. 38% answered Yes, 62% answered No. Some answers of why the respondents chose No include ambiguity, bad grammar or structure, missing context, and mistranslation.

Statement number 19 is “Bahasa Indonesia in the results of the auto translate feature is good and correct”. 70% answered Yes. 30% answered No. Statement number 20 is “The auto translate feature helps me understand new topics I wasn’t familiar before”. 94% answered Yes, 6% answered No.

Overall, the description provided by the respondents are concerning about terminology, diction, miscontext. This finding is relevant with Arvianty (2018) that studied about Instagram translation result, she found that in the non-formal language which is used to write in caption cannot be translated well by machine translation since the lack of the vocabulary that is stored in the programs. The uncommon language, uncommon abbreviation, and slang language which is used in the caption made machine translation translate it awkwardly, even it cannot translated the source language and only copy it into translated version.

Yunanda et al. (2022) in their study found that currently the usage of slank language using local terms is rapidly increasing to make it easier for teenagers to communicate with other people, makes teenagers more creative in creating new trending. Local terms are also widely used since they are more efficient and concise, the presence of these local terms makes teenagers have their own language in expressing themselves. Due to this phenomena, new vocabularies rapidly spread across multi platform in social media and the machine translation database has not caught up effectively to this trend.

The statement mentioned was also in line with Hatim and Munday (2004) stated that the key problem in translated feature is the frequent lack of one-to-one matching across languages. Not only does the signifier change across languages but each language depicts reality differently. In other words, the translation machine translates the sentence just passing through the words when it does not have the data about the words.

This study suits perfectly the recommendation by Asmawati (2020) that conducted similar study about the auto-translate feature. Her study focused on student and teachers, and suggested for other researcher to broaden the research for public. The result of this study is the improvement to her findings. By showing the aspects of usefulness, the researcher has succeeded in answering what are the shortcomings of the auto-translate feature.

In conclusion, this qualitative analysis combined with quantitative analysis provide the answers to the second research question “How useful is the auto translation feature in social media for users?” According to the data, this feature fulfills the Nababan (2012) theory regarding quality in translation assessment in three aspects: good accuracy, acceptability, and readability. Moreover, using this feature helps the respondents in learning new things they are not familiar before. Some shortcomings that opens



improvement for the developers include grammar update, diction, and context understanding.

### Conclusion

In conclusion, the first research question, "Does the quality of auto translate features in social media matter for users' understanding?" is answered by the quantitative analysis. Yes, it matters. The response shows that the translation output in this feature has a relatively high accuracy rate, moderate readability, and very acceptable, as well as preferable. Furthermore, according to the graphs, this usefulness is primarily for women between the ages of 17 to 28 with bachelor's degrees.

The answers to the second research question, "How useful is the auto translation tool in social media for users?" are provided by combining qualitative and quantitative analysis. According to the statistics, this feature satisfies three aspects of Nababan's (2012) theory of translation quality assessment: excellent accuracy, acceptance, and readability. Furthermore, adopting this feature aids responders in learning new items with which they were previously unfamiliar. Grammar updates, diction, and context awareness are some of the flaws that developers can work on.

Some recommendations are directed to the future researchers that it is possible to use the data in this study to analyze further using other translation theory, such as Newmark's, Nida's, or others to broaden the discussion. Developers can also utilize the findings to increase the language comprehension of artificial intelligence. The shortcomings are nothing but some hints for future advancements.

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