

AN ANALYSIS OF TRANSLATION TECHNIQUES BETWEEN AI AND HUMAN TRANSLATOR IN TRANSLATING CULTURAL WORDS IN THE GADIS KRETEK NOVEL

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Abstract

This study aims to analyze and compare the translation techniques used by AI and human translators in translating cultural words found in the Gadis Kretek novel. Using the observation method to collect data from the novel, this research applies Molina and Albir's (2002) translation techniques framework to examine the strategies employed by both translators. The finding of this research shows that 50 data fulfill thirteen types of translation technique. The findings reveal that AI translators employ 4 techniques in translating sentences containing cultural words: Adaptation, Literal Translation, Borrowing, and Calque. On the other hand, human translators utilize 8 techniques, including Establishing Equivalence, Adaptation, Description, Amplification, Modulation, Linguistic Amplification, Transposition, and Naturalization. The basic difference in translation techniques between AI translators and human translators lies in the range and variety of techniques they employ. AI translators only utilize 4 out of the 18 translation techniques proposed by Molina and Albir (2002), whereas human translators apply 8 techniques, making their approach more diverse and flexible. The result of this study is discrepancy in the number of techniques used can be attributed to several underlying reasons that stem from the fundamental differences in how AI and human translators process language, context, and culture. Among all the translation techniques analyzed, AI tends to use Literal Translation more frequently, AI translators most frequently use the Literal Translation technique (45 times), translating word-for-word from the source to the target language. This occurs because AI prioritizes lexical equivalence without considering cultural context, often resulting in unnatural or inaccurate translations. In contrast, human translators mostly use Adaptation (20 times) and Modulation (24 times). Adaptation replaces culture-specific terms with more familiar equivalents in the target culture, while Modulation adjusts the expression or point of view to sound more natural and contextually appropriate.

Keywords: Cultural Words, Translation Techniques, AI Translator, Human Translator, Gadis Kretek, Molina and Albir Theory

Abstrak

Penelitian ini bertujuan untuk menganalisis dan membandingkan teknik penerjemahan yang digunakan oleh penerjemah AI dan penerjemah manusia dalam menerjemahkan kata-kata budaya yang ditemukan dalam novel Gadis Kretek. Dengan menggunakan metode observasi untuk mengumpulkan data dari novel tersebut, penelitian ini menerapkan kerangka kerja teknik penerjemahan Molina dan Albir (2002) untuk mengkaji strategi yang digunakan oleh kedua penerjemah tersebut. Temuan penelitian ini menunjukkan bahwa 50 data memenuhi tiga belas jenis teknik penerjemahan. Temuan tersebut mengungkapkan bahwa penerjemah AI menggunakan 4 teknik dalam menerjemahkan kalimat yang mengandung kata-kata budaya: Adaptasi, Terjemahan Literal, Peminjaman, dan Calque. Di sisi lain, penerjemah manusia memanfaatkan 8 teknik, termasuk Menetapkan Kesetaraan, Adaptasi, Deskripsi, Amplifikasi, Modulasi, Amplifikasi Linguistik, Transposisi, dan Naturalisasi. Perbedaan mendasar dalam teknik penerjemahan antara penerjemah AI dan penerjemah manusia terletak pada jangkauan dan variasi teknik yang mereka gunakan. Penerjemah AI hanya menggunakan 4 dari 18 teknik penerjemahan yang diusulkan oleh Molina dan Albir (2002), sedangkan penerjemah manusia

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menerapkan 8 teknik, membuat pendekatan mereka lebih beragam dan fleksibel. Hasil dari penelitian ini adalah perbedaan dalam jumlah teknik yang digunakan dapat dikaitkan dengan beberapa alasan mendasar yang berasal dari perbedaan mendasar dalam bagaimana penerjemah AI dan manusia memproses bahasa, konteks, dan budaya. Di antara semua teknik penerjemahan yang dianalisis, AI cenderung menggunakan Terjemahan Literal lebih sering, penerjemah AI paling sering menggunakan teknik Terjemahan Literal (45 kali), menerjemahkan kata demi kata dari sumber ke bahasa target. Ini terjadi karena AI memprioritaskan kesetaraan leksikal tanpa mempertimbangkan konteks budaya, yang sering kali menghasilkan terjemahan yang tidak alami atau tidak akurat. Sebaliknya, penerjemah manusia sebagian besar menggunakan Adaptasi (20 kali) dan Modulasi (24 kali). Adaptasi mengganti istilah khusus budaya dengan padanan yang lebih familiar dalam budaya target, sementara Modulasi menyesuaikan ekspresi atau sudut pandang agar terdengar lebih alami dan sesuai konteks.

Kata Kunci : Kata Budaya, Teknik Penerjemahan, Penerjemah AI, Penerjemah Manusia, Gadis Kretek, Teori Molina dan Albir

INTRODUCTION

Language is the process of using words in a constructed and traditional way to communicate with another person, whether orally or in writing. Language skills are the abilities that enable you to express thoughts coherently and communicate with others (Simatupang & Sipayung, 2023). Language is use to communicate with others, express our thoughts and feelings, make sense of complex or abstract ideas, meet our wants and requirements, and preserve our culture. Language skills during this critical phase of language development (Kable et al., 2024). As a means of communication, language is greatly impacted by the cultural environment in which it develops. It reflects the values, beliefs, and traditions of a community.

(Newmark, 1988) explains that cultural word is defined as words that refer to objects, processes, institutions, customs, and notions that are unique to a particular group of people. It suggests that the translator must possess background knowledge, which entails becoming an authority on all subjects related to the original text. The translation outcomes will be impacted by the translator's general knowledge and cross-cultural comprehension. The translation results will be greatly impacted by the translator's extensive knowledge and understanding of other cultures. During the process, meaning preservation and cultural adaptation were ensured in this validation. The back-translation discrepancies were minor despite the cultural and linguistic differences (Ferrer et al., 2024)

Translation is the process of translating text or voice from one language to another without changing its meaning. Translation is vital in many disciplines, including education, international business, diplomacy, and intercultural relations. Translation can be used to understand and learn about linguistic and cultural differences. Translation is the most straightforward and affordable way to transfer knowledge and information between languages (Sipayung, 2023). The process of translating written material from the source language (SL) to the target language (TL) is known as translation. To ensure that the message being sent is accurate, one must be able to understand the meaning of every sentence in both the source and destination languages. The techniques used by translators to produce the correct and appropriate translation from one language to another are known as translation techniques. Translation technique is the use of meaning to transfer a message from the source language (SL) to the target language (TL) at the word, phrase, clause, or sentence level.

Human translation is the process of translating words and content from one language to another. When students translate a document, it is often thought to be more accurate in conveying the precise and nuanced meaning of the original. Humans are usually more accurate in translating compared to machines (Li et al., 2023).

Artificial intelligence (AI) translation is quick and effective, it can handle lengthy documents and process text in a matter of seconds. Artificial intelligence (AI) translation has expanded quickly in the last several years, providing a quick and effective answer to translation requirements. AI is

perfect for tasks like online content and document translation because it can quickly process vast amounts of material using machine learning algorithms.

AI Translator, or artificial intelligence (AI)-based translator, is an innovative technology that is changing the way we communicate across languages. It uses advanced algorithms and machine learning models to automatically translate text and speech, facilitating cross-language interactions in a whole new way. An example of AI Translator implementation can be seen in apps like Wordvice's Free AI Translator which uses AI to automatically translate text, facilitating cross-language interactions in the latest way. Users can perform translation by specifying the type of language (origin and destination) of translation and typing the word to be translated in the translate text dialog box. Free AI Translator Wordvice also facilitates AI Plagiarism checker, AI Paraphraser, and AI Translator.

A computer system that mimics human intelligence is called artificial intelligence, or AI. By using this intelligence simulation technique, AI is now able to think and behave like a human. Among the many advantages of AI is its capacity to finish jobs that would take a person longer to complete. AI is also capable of making logical decisions when needed to accomplish particular objectives. However, although AI has many advantages. Human translators have a deep understanding of cultural nuances and idiomatic expressions, which allows them to create translations that resonate with the target audience. This cultural sensitivity is crucial to ensure that content is comprehensible and appropriate, especially in contexts involving humor or local customs. Human translators excel at conveying the emotional tone of the original text.

The researcher compares eighteen translation techniques according to (Molina & Albir, 2002) between human and AI translators to translate the sentences that consist cultural words in this study. The researcher considers that the skills of both students and AI translators differ in their use of translation techniques. It is important to know the translation technique to make an informed choice as to whether translation focuses on a source language or its target language.

Analysis of translation results between AI and Students translator in translating sentence that consist of cultural words in the *gadis kretek* novel :

ST : Dengan terapi, sedikit demi sedikit romo pulih

TT (Human Tr) : With therapy, little by little, father recovered

TT (AI Tr) : With therapy, little by little, the priest is recovering.

Translation used different techniques that produce different result in translating sentences. Human translator uses the "Establish Equivalence" technique because the translator looks for the right word equivalent for "romo" with "father", maintains the meaning and context, and produces an accurate and easy-to-understand translation. AI Translator, on the other hand, employs the "Adaptation" technique to modifying the original text to make it more relevant or suitable for the target culture or situation. The fact that human and AI translators have different characteristics concerning maintaining equivalence or reintroducing a target language demonstrates this.

Novel is a type of literature that more or less provides an overview of social problems. A novel is a verbal object that precludes such a novel from possessing nonlinguistic elements, such as photographs, maps, diagrams, and drawings (Aliyev, 2021).

Gadis Kretek is a novel by Ratih Kumala published in 2012 by Gramedia Pustaka Utama. The novel tells a story of family, love and history against the backdrop of the kretek industry in Indonesia. The story begins with Lebas, Soeraja's eldest son, who gets an assignment from his dying father to look for someone named Dasiyah. Through this journey, readers are invited to explore the past full of conflict, love, and intrigue in the Soeraja family, as well as the history of the birth of kretek cigarettes in Indonesia. Dasiyah, as one of the central characters, is portrayed as a strong woman who plays an important role in the development of the kretek industry. She is known for her skill in creating high-quality and innovative kretek, but her life was not free from challenges. In the midst of a

pariarchal environment, Dasiyah must struggle to prove her abilities, defend her life principles, and face various personal conflicts, including her relationship with Soeraja. Dasiyah's character reflects the struggle of women in the colonial era who not only had to fight gender injustice, but also compete in the business world.

In addition to the love story and the struggle, the novel is also full of cultural words. The selected novel *Gadis Kretek* has many cultural words. Ratih Kumala developed the idea by utilizing cultural Javanese terms like *Jeng Yah*, *mitoni*, which are difficult to translate into English. For example, *mitoni* is a joint prayer event to commemorate the 7th month of pregnancy.

There are several previous studies conducted by several previous researchers used by researchers to add references. The first previous research is a study entitled "An Analysis of Translation Procedure in Translating Cultural Word" by (Apandi & Afiah, 2020). It found that there were 22 words and phrases of cultural terms found in the text. The second previous research is a study entitled "The Translation Procedures of Cultural Words in an Indonesian Phrasebook" by (Frihatmawati et al., 2023). It found that translators use four procedures in translating Indonesian cultural words. The translation procedures are descriptive equivalence, cultural equivalence, couplets, and naturalization. The most dominant translation procedure is descriptive equivalence, and the least is naturalization. The third previous research is a study entitled "Translation Procedure of Cultural Words of the First Episode of *Gadis Kretek* Series" by (Virtianti et al., 2024). It found that of the 56 cultural words found in the first episode of *Gadis Kretek*, the most common type of cultural word is stereotypes (Nugroho et al., 2022).

In some of the previous studies above, no one has compared translation techniques between students' translation and AI Translator in translating sentences that consist of cultural words. That is what makes this research different from previous studies. The researcher is interested in conducting this research because there is a lack of research on AI translators and students translators.

This study aims to know the techniques used by artificial intelligence and students to translate sentence that consist of cultural words. It is anticipated that this research will improve knowledge of the advantages and disadvantages of each translation techniques. Additionally, it can offer fresh perspectives on the use of AI Translation in cultural contexts, such as novel translation, which frequently carries unique cultural expressions and nuances. This research has the potential to greatly advance our knowledge of how much machine translation, Artificial intelligence can either supplement or replace human talents when it comes to translating cultural words in novel texts. The results of this study will be useful in future investigations on the benefits and drawbacks of artificial intelligence and human translation technology. By boosting human translation techniques and AI translator performance, this knowledge can direct future growth in both domains (Harahap et al., 2020). The researcher wants to know what translation techniques are used to translate cultural words between Human and AI translators in the *Gadis Kretek* novel by Ratih Kumala and analyze the cultural words and their translations contained in the *Gadis Kretek* novel.

Based on the above reasons, the researcher has a great desire to conduct a study entitled "An analysis of translation techniques between AI and Human in translating cultural words in the *gadis kretek* novel".

METHOD

The researcher used a qualitative research design with a descriptive qualitative approach because the result of this study is to describe translation techniques in translating cultural words and analysing translation techniques between AI and Human in translating sentence that consist of cultural words in the *gadis kretek* novel. According to (N. Tambingon et al., 2024), descriptive qualitative research will be used to describe a natural phenomenon and qualitative research is research that seeks to determine the truth or justify the truth, but in determining the truth it is not necessarily obtained by

looking at the existing reality, but by looking further at what actually happened. The most important sources of data in qualitative research are oral or written words (Sun & Yin, 2022). After the cultural words are translated by the AI Translator, the researcher analysis the results of the human translation. Then analysing the differences in the translation techniques use between human and AI. The researcher conduct this study by applying Molina and Albir's translation techniques (Pratiwi & Nur, 2019).

The data of this research used sentences containing cultural words from the *Gadis Kretek* novel. The source of data for this research is the *Gadis Kretek* novel. The researcher takes samples from the human translation of the English version of the novel “Cigarette girl” by Annie Tucker (2015) and translate the words containing cultural words using AI in the “*Gadis kretek*” novel. Then, analysing the translation techniques found in the translation results between human translators and AI translators. In addition to the instrument in collecting data in this study, the researcher also used other tools in collecting data (Octavianna et al., 2024). The data collection instrument in this study is the researcher herself who analysing documents and observations about sentences containing cultural words that have been translated by humans from the source language to the target language in the book “cigarette girl” by Annie Tucker (Yeşilbağ et al., 2020). After obtaining the results of the translation of cultural words from humans and AI translators, the researcher then analysing the translation techniques use between human and AI. The researcher used a purposive sampling technique in selecting samples that contained sentences consisting of cultural words (Ferrah & Nemmouchi, 2018).

In this research instrument, the researcher did not give tests or observations, because translation has no assessment. But the researcher doing observation in the *gadis kretek* novel. The process of translating cultural words does not require assessment or performance evaluation. Instead, the researcher focused on analysing the content and translation techniques use by human and AI translators in translating cultural words in the novel *Gadis Kretek* by Ratih Kumala using AI translator and analysing the English version of the novel “Cigarette Girl” by Annie Tucker as a result of human translation.

RESULT AND DISCUSSION

Data

Research data is essential to the process of conducting research and is crucial to the production of results and conclusions. The data presented below are samples taken from the novel “*Gadis Kretek* by Oleh Ratih Kumala, translated by the translator (Annie Tucker) and Artificial intelligence (AI Translator). For the complete data, please see the appendix. This research collects data from observations obtained from the novel *Gadis Kretek*. Based on the data collected through observation, the author found that human translators and AI Translators use several techniques in translating sentences containing cultural words. The table below contains 50 data on cultural words sourced from the *Gadis Kretek* novel.

Table 1. Data collection of Cultural Words In The Gadis Kretek Novel

No	(ST) Source Text Title Of Novel (<i>Gadis Kretek</i>)
1	Dengan terapi sedikit demi sedikit romo pulih
2	Roemaisa dengan atasan kebaya kembang kembang kecil
3	Jarit batik yang masih terlihat rapi
4	Dia mengajak roemaisa minum cendol

5	Paling paling yang dilihat Menara kudas dan soto kudas
6	O ya , satu lagi yang bisa dilihat , kretek!
7	Dipukul setelah ijab kabul
8	Diambilnya batang semprong petromaks

The following is a table of the overall data that will be analyzed for translation by AI Translator and Human Translator the data below contains 50 data

Tabel 2. Data collection of Cultural Words In The Gadis Kretek Novel

No	(ST) Source Text Title Of Novel (Gadis Kretek)
31	Kata yang lebih tepat digunakan yaitu isep
32	Garwo kulo berarti Perempuan atau istriku
33	Pakaiannya nglombrot dan cerewet
34	Setahun sekali pasar malam digelar disana
35	Seorang pemuda dengan buntalan dan baju lusuh datang ke pasar malam
36	Pindah ke alun alun suatu kota kecil lainnya
37	Tiba tiba kosong melompong
38	Toh, roemaisa bergeming

Data Analysis

After the data was collected, the researcher analyzed the translation techniques used by human and AI translators to translate sentences that contained cultural words in the novel *Gadis Kretek*. The analysis data was presented in the form of a table. The analysis data was obtained by identifying the translation results of human translators and AI translators, which were then organized into a table to analyze the translation techniques used by both. For a more complete analysis, the data could be seen in the appendix.

Identifying the translation of cultural words made by AI Translator

After the researcher collected the data, the researcher focused on analyzing the AI translator's translation results to identify the translation techniques used. The table below presented the data analysis of the *Gadis Kretek* novel, from the source language to the target language, along with the translation techniques that were identified. There are 10 data from the source language, the researcher only analyzed 10 data because the researcher used purposive sampling technique. From the data, there are 3 techniques used which are literal, borrowing, and calque translation techniques.

Findings

This data indicates that AI heavily relies on Literal Translation, which is used in 45 out of 50 sentences. This over-reliance suggests that AI is limited in its ability to adapt its translations to complex cultural contexts, where more nuanced techniques would be necessary. AI's minimal use of techniques like Adaptation, Borrowing, and Modulation highlights its preference for direct, word-for-

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word translation, which is faster and more algorithm-friendly but often fails to capture the cultural essence of the text (Gunawan, 2019).

In the table below shows that AI only applied 6 translation techniques in translating 50 sentences containing cultural words in the *Gadis Kretek* novel. The breakdown of these techniques is as follows:

Table 3. Data of Types of translation techniques used by AI translator

No	Translation Techniques	Amount
1	Adaptation	1
2.	Borrowing	4
3.	Calque	1
4.	Literal	45

In the table above, the primary reason AI translators use only 6 out of Molina and Albir's 18 translation techniques lies in the technical and cognitive limitations of AI compared to human translators. These limitations can be explained as follows:

1. Dependence on Predefined Patterns and Algorithms

AI translations, especially those generated by machine learning models, rely on massive datasets of bilingual texts to learn linguistic patterns. These models are trained to prioritize literal and structural accuracy, which is why Literal Translation dominates AI's approach. Unlike humans, who can think critically and creatively to select the best translation technique based on context, AI follows learned patterns and algorithms that do not always account for cultural nuances.

2. Lack of Deep Cultural Understanding

AI struggles with cultural sensitivity because it cannot interpret the deeper meanings of cultural words. Techniques like Amplification, Establishing Equivalence, or Linguistic Amplification, which require a nuanced understanding of cultural references, idiomatic expressions, and figurative language, are beyond the AI's capacity. These techniques often involve subjective decisions based on real-world knowledge, something AI cannot fully replicate.

3. Focus on Efficiency and Speed

AI is designed to prioritize speed, consistency, and large-scale processing. Techniques like Literal Translation, Borrowing, and Calque are more straightforward and can be applied quickly without requiring deep analysis. However, this focus on speed comes at the cost of creativity and cultural adaptation, which explains the limited range of techniques AI uses.

4. Challenges in Handling Ambiguity

Human translators can interpret ambiguous sentences and choose the appropriate translation technique by considering the broader context. In contrast, AI often defaults to literal translations when it encounters ambiguity, as it lacks the critical thinking needed to resolve such issues. This leads to a higher reliance on Literal Translation, which may not accurately convey the intended cultural meaning.

5. Algorithmic Bias Toward Common Techniques

AI tends to favour techniques that appear more frequently in its training data. Since Literal Translation and Borrowing are common in technical texts and basic language tasks, AI models may be biased toward using these techniques even when more culturally appropriate alternatives exist.

Human translators, by contrast, can consciously switch between techniques depending on the context.

Human Translators and Their Greater Flexibility unlike AI, human translators apply a more diverse set of techniques because they can analyze the context, understand cultural nuances, and creatively adapt their translations to convey meaning more accurately (Ackermann et al., 2020). Techniques like Amplification, Transposition, and Naturalization allow human translators to adjust the translation to suit the target audience and maintain the cultural integrity of the source text. This flexibility results in translations that are not only accurate but also culturally resonant. In conclusion, AI's use of only 6 translation techniques is a reflection of its technical limitations, lack of deep cultural understanding, and preference for efficiency over nuance (Bavi, 2018). Human translators, with their broader cognitive and cultural awareness, are

better equipped to handle the complexities of translating cultural words, which explains their more varied and adaptive use of translation techniques.

Translation Techniques implemented by Human

This data demonstrates that human translators utilize a more diverse and flexible range of translation techniques compared to AI translators. Human translators are not confined to literal word-for-word translation but instead make conscious choices based on cultural, contextual, and linguistic considerations. Humans are the creators of culture, and culture is the result of human creation in accordance with their environment. So that there is a close relationship between humans and culture (Hutauruk & Puspita, 2020). This diversity allows them to capture both the literal and cultural meanings of the source text, resulting in a more accurate and contextually appropriate translation (Nikmah, 2020).

Discussion

The findings of this study underline the importance of understanding the translation techniques when translating sentences that consist of cultural words in the Gadis Kretek novel. Based on the data findings above, the inaccuracies found in AI translation mainly occur in the translation of cultural words or cultural terms. The types of inaccuracies include reversal of meaning, addition of meaning, deviation of meaning, and loss of meaning in the translated text. This shows that although AI translators have the ability to translate text automatically, there are still limitations in capturing cultural nuances and context from the source language to the target language (Tao & Chen, 2019).

The research findings were also supported by Molina and Albir (Wibowo, 2022) there are eighteen distinct translation techniques that can be applied during the translation process. However, translation techniques alone are not the only determining factors in producing a high-quality translation. Other linguistic aspects, such as coherence, cohesion, thematic progression, and contextual dimensions, also play a crucial role in shaping the final translation product (Taylor et al., 2021). These elements influence how well the translated text flows, how effectively ideas are connected, and how successfully the intended message is conveyed to the target

audience. By analyzing and applying these eighteen translation techniques, both AI and human translators can enhance the accuracy and readability of their translations. These techniques provide a structured framework that aids in bridging linguistic and cultural differences, ensuring that translations remain faithful to the original text while being easily understood by the target audience.

The research findings were also supported by Apandi and Afiah's (2020) "An Analysis of Translation Procedure in Translating Cultural Word" research analyzing cultural terms based on Newmark's (Junining et al., 2020) theory found 22 cultural words and phrases in Indonesian texts translated into English. Meanwhile, the research conducted in this study offers new perspectives and findings by combining the theoretical approach of Molina and Albir's (Kardiansyah & Salam, 2020) translation technique, in which it was found that AI translators translated 44 sentences

Sherly Adeliabr Sembiring, Kammer Sipayung, Febrika Dwi Lestari| An Analysis Of Translation Techniques Between AI And Human Translator In Translating Cultural Words In The Gadis Kretek Novel containing cultural elements using literal translation techniques which are direct and pay less attention to cultural context. In contrast, the human translator was more contextual and varied by using the Adaptation technique 24 times and Modulation 26 times. These techniques allow human translators to convey cultural meaning more effectively and naturally in the target language. This finding confirms that appropriate translation techniques greatly affect the quality and acceptability of translation, especially in translating cultural elements (Sinambela et al., 2023).

The research conducted by Frihatmawati et al. (2023) titled “The Translation Procedures of Cultural Words in an Indonesian Phrasebook” shows that translators use four main procedures in translating cultural words, namely descriptive equivalence, cultural equivalence, couplets, and naturalization. However, the findings in the previous study are quite contrary to the findings in this

study where in this study the researcher finding is reinforced by the results of this study which show that AI translators use six translation techniques, namely Adaptation, Borrowing, Calque, Description, Literal, and Modulation, which tend to be structural and less contextual (Ayuningtyas et al., 2018). Meanwhile, human translators use eight techniques, namely Adaptation, Amplification, Description, Established Equivalence, Naturalization, Linguistic Amplification, Modulation, and Transposition. This shows that human translators have a more varied and contextualized approach, and are able to adapt the translation to the cultural nuances in the target language more effectively (Pasaribu et al., 2020).

The research findings were also supported by Virtianti et al. (2024) entitled “Translation Procedure of Cultural Words of the First Episode of Gadis Kretek Series” aims to identify the types of cultural words and the translation techniques used, using Alonso and Ponte's cultural classification theory and Newmark's (1988) translation procedure theory. Of the 56 cultural words found, the most dominant type is stereotypes (22 words or 39.2%), while the least type is cultural heritage (1 word or 2%). This study provides different results because it applies Molina and Albir's (2002) theory to analyze the translation techniques by AI and human translators in the novel Gadis Kretek. The analysis shows that the AI translator uses six translation techniques, namely Adaptation (1), Borrowing (3), Calque (1), Description (1), Literal (45). In contrast, human translators use eight techniques, namely Adaptation (20), Amplification (2), Description (3), Established Equivalence (8), Naturalization (3), Linguistic Amplification (1), Modulation (24), and Transposition (1).

CONCLUSION

1. Based on the results of research conducted on AI Translator, it can be concluded that there are several types of translation techniques used in translating cultural words. AI Translator In translating sentences that consist of cultural words are found that 4 techniques are applied: Adaptation translation technique, Literal translation, Borrowing translation, and Calque translation. The most common problem in translating cultural words is changing the original cultural word into another word, for example, *romo* becomes *father*.
2. Based on the results of research conducted on Human Translator, it can be concluded that there are several types of translation techniques used in translating cultural words. 8 translation techniques were applied by Human translators in translating sentences that consist of cultural words: Establish Equivalence translation technique.
3. Based on data analysis can be seen that the difference is AI and human translators apply different translation techniques. AI Translator In translating sentence that consist of cultural words are found that 4 techniques. Namun, yang paling banyak digunakan adalah Literal translation technique. Because AI prioritizes direct word-for-word translation and AI tends to rely on these 4 techniques is its reliance on pattern recognition and statistical or neural-based models. And Human

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Translator In translating sentence that consist of cultural words are found that 8 techniques. However, the most commonly used by human translators is the Modulation and Adaptation technique. Because human translators adjust meaning and structure to ensure the translation is both natural and contextually appropriate for the target audience. It can be concluded that translation by human translators uses more diverse translation techniques so as to allow the results to be more appropriate and use several techniques to translate cultural words in order to get the same meaning and meaning.

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