

Comparative Analysis on the Translation of the Academic Handbook of University of Mataram Using ChatGPT and Professional Translation

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Abstract: Translation can be interpreted as the concept of transferring meaning from one language to another according to the meaning that the author wants to convey. This study aims to find out the aspect of the differences between translation using ChatGPT and Professional in the Academic Handbook of University of Mataram and to determine the more accurate translation between ChatGPT and Professional translation. This study used a qualitative method. The researcher applied a comparative analysis technique of the results of the ChatGPT and Professional translations of the Academic Handbook of University of Mataram. The results of this research show that of the three translation techniques applied, borrowing techniques were used 147 times, adaptation techniques were used 90 times and literal translation techniques were used 86 times. After conducting a comparative analysis, the researcher then tested the level of accuracy of the analysis data results using House's theory (1997). Then, the results of the accuracy level data test show that the translation by Professionals is more accurate than the ChatGPT translation results.

Keywords: translation, borrowing, adaptation, literal translation, accuracy

INTRODUCTION

According to O'Brien (2006) technology is a computer network consisting of various information processing components that use various types of hardware, software, data management and information network technology. Globalization and technology have raised the demand for international communication and information exchange in many fields. Changes in translation are significant. Machine translation has significantly improved cross-cultural communication because of the need for immediate translation and the quick development of new technologies. Although machine translation systems are most effective when translating instruction manuals and producing high-quality translations, machine translation of other materials, particularly complex texts, is still troublesome and must be improved in order to meet society's expanding requirements (Asscher, O and Glikson E. 2021).

Bahdanau et al. (2014) stated that Neural Machine Translation (NMT), which uses deep neural networks to perform translation tasks. Bahdanau et al. proposed a model with an attention mechanism that allows the model to focus on specific parts of the source text when generating translations. NMT significantly improves translation quality by leveraging deep learning, resulting in more natural and accurate translations.

As technology develops it plays a very important role in supporting human life so that their work becomes easier. Of the many existing technologies, currently the newest technology has been created with the ability to replicate human thinking in computer machines, known as Artificial Intelligence (AI). AI is very easy to find in everyday life, for example, reporting from the digitalbisa.id page 2023, one of the AI research institutes is called Open AI, which is based in San Francisco and was founded in 2015 by Elon Musk, Sam Altman, Greg Brockman, Ilya Sutskever, and Wojciech Zaremba, developed an AI technology called ChatGPT (Chat Generative Pre-training Transformer). According to Schulman et.al. (2022) defined, ChatGPT is a language model created by Open AI. The model is developed using deep learning

technology and is based on the transformer architecture. ChatGPT has the ability to process and generate text in natural language with high quality. Open AI, a technology company focused on artificial intelligence development, is the creator of ChatGPT. The model is an advanced iteration of the well-known GPT (Generative Pre-trained Transformer) model.

Van Dis et al. (2023) argue that ChatGPT plays a significant role in the democratization of knowledge. This implies that access to information and learning becomes more equitable, as ChatGPT can provide information that is typically available only to certain groups, in a manner that is more accessible and understandable. The main function of ChatGPT is to provide information by means of users having to ask questions about topics they want to know using a matter of seconds. Apart from being able to provide information, ChatGPT also provides good advice.

According Oliveira et al. (2012) translation is the replacement of textual material in one language (SL) by equivalent textual material in another language (TL). Munday (2009), defines translation as: (1) the process of replacing written text from SL (Source Language) to TL (Target Language) performed by a translator in a specific socio-cultural context; (2) the written product, or TT, which is created from that process and operates in the socio-cultural context of SL; and (3) cognitive, linguistic, visual, cultural and ideological phenomena which are a structured part of 1 and 2. The process of accurately substituting concepts from one language into another in writing involves adhering to the grammar, cultural, and syntax convention of the target language.

Nida & Taber (1982) states that translation consists of reproduction into a target language that is equivalent, close to the source language or as natural as possible, the first in terms of meaning and the second in terms of style. Nida and Taber (1982: 33) distinguish translation process into three stages: (1) analysis, in which the surface structure is analyzed in terms of (a) the grammatical relationships and (b) the meaning of the words and combinations of words, (2) transfer, in which the analyzed material is transferred in the mind of the translator

from language A to language B, and (3) restructuring, in which the transferred material is restructured in order to make the final message fully acceptable in the receptor language. The translation process can be illustrated in the following diagram. According to Bell (1991) claimed that the information and abilities a translator must possess in order to complete a translation determine the quality of the translation.

According to Newmark (1988:5) translation is an instrument of education as well as of truth precisely because it has to reach readers whose cultural and educational level is different from, and often lower or earlier, than that of the readers of the original-one has in mind computer technology for Xhosas. Translation is a difficult process since it involves transferring ideas and concepts from one language to another. However, since the purpose of translation is to convey information to the two languages as well as the texts and intended audience. Thus, it is necessary for a translator to have a through awareness of both languages as well as of their cultures in order to prevent literal translation, potential misunderstandings, and mistakes.

The disparity between the grammatical structures of the source and destination languages is one of the factors that make it challenging for a translator to create a quality translation. The grammatical discrepancies between the source and destination languages frequently cause some changes in the information content of the message during translation, according to Baker (1992). Due to the differences in grammatical structures between English and Indonesian, translating English-language works into Indonesian also presents challenges. According to Baker (1992: 65), the first difficulty that a translator comes across, while translating idioms, is the ability to recognize and distinguish idiomatic from non-idiomatic usage. Baker (1992: 72-77) proposes four strategies in translating idioms: translation by using an idiom of similar meaning and form, translation by using an idiom of similar meaning but dissimilar form, translation by paraphrasing, and translation by omission.

According to Soemarno (1991) states that two separate languages that are represented by words, phrases, clauses or sentences must be translated by a translator. Finding equivalent translations of the target language is a concern for translators. As a result, translators frequently run into a number of challenges at every stage of the translation process. These challenges can be divided into three categories: (1) challenges with understanding and learning the source language; (2) challenges with transferring information and locating analogies in the target language; (3) challenges with organizing the transferred information to produce accurate and accurate translation results.

In actually, Artificial Intelligence is currently being utilized extensively in a wide range of applications, like ChatGPT, Google Assistant, Siri, Cortana, and Search Engines. Zhang, Y., & Huang, X. (2023) identified the core techniques used in the development of ChatGPT, such as contextual learning and reinforcement learning from human feedback. However, this theory also emphasizes the duality of ChatGPT, where apart from bringing many opportunities, this technology also raises challenges, especially regarding academic integrity and safety. AI is developing very quickly, as seen by the fact that it is used in autonomous (self-drive) automobiles, which let the vehicle to operate without human assistance. AI has enormous potential to advance research in other domains as well. One instance is in the sphere of education, where students can utilize AI gadgets to get clearer

explanations on tasks or content they do not understand. This thesis aims to compare the quality of translations in Academic Handbook between the use of ChatGPT and professional translation. The translation of the Academic Handbook of University of Mataram is a crucial process in conveying messages and content to audiences who speak different languages. This research will comprehensively analyze how the translations produced by ChatGPT; an AI language model compare with the translation done by professional human translation.

The research methodology involved qualitative analysis of the translated content in the Academic Handbook generated by ChatGPT and professional translation. First, the differences between the translations translated by ChatGPT and the professional ones from the University of Mataram in the Academic Handbook were analyzed. The second point analyzed was the quality and suitability of the translation from the source language with the cultural values and themes embedded in the Academic Handbook of the University of Mataram so that it was easily understood by readers in the target language

This research is the latest research that researchers developed by referring to relevant previous research. By conducting an in-depth review of literature and previous research, researchers try to strengthen aspects that have been proven previously, as well as explore new possibilities that have not been revealed before. The present study represents a significant advancement in the field by enhancing our comprehension of the subject matter by comparing the translations in the Academic Handbook of University of Mataram produced by ChatGPT and professional translations. Researchers hope that this research can make a meaningful contribution to the future development of science and can provide benefits to society and the academic world.

RESEARCH METHOD

Research Design

According to Creswell (2014) Qualitative research is an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyzes words, report detailed views of information, and conducts the study in a natural setting. This research will design by using qualitative descriptive to answer second research questions. The study design used comparative descriptive. According to Gay in Emzir (2014) comparative causal research is research where the researcher seeks to determine the cause or reason for existence difference in behaviour or status within a group of individuals. In this cooperative research comparing the differences as phenomenon to identify translation by ChatGPT and Professionals. According to Sugiyono (2019) claims that because of the nature of the study in natural settings, qualitative research methods are sometimes referred to as the naturalistic observation methods that are utilized to investigate the natural object condition. The analysis of the data was based on the Molina and Albir's theory about *Translation Technique* namely, (1) Adaptation, (2) Borrowing, (3) Literal Translational. And to determine the accuracy of the translation was used the theory by Juliane House about *Translation Quality Assessment*, there are four (4) method to determine namely, (1) Textual Analysis, (2) Comparison, (3) Types of Translation, (4) Culture Filter.

Data Source

According to Abdul Hakim (2004), a handbook is a compilation of various types of information that is arranged concisely and ready to use, specifically in a field such as a handbook of physics. The Academic Handbook from the University of Mataram served as the study's data source. Where data will be produced from two samples ChatGPT and Professional of translations. The differences in translation regarding vocabulary, grammar and language structure will be the focal point of comparison between the two data sets.

1. Academic Handbook of University of Mataram (Indonesia): The main information source is an Indonesian-language Academic Handbook from University of Mataram. This data includes details regarding the academic requirements, study plans, and other policies that apply to students at the University of Mataram.
2. ChatGPT translation (English): ChatGPT automatically translates the original Academic Handbook from Indonesian to English, and this is how the translation data is generated. One of the study's sample texts is the translation produced by ChatGPT.
3. Professional Translation (English): A group of qualified translators who specialize in Academic Handbook translation from Indonesian into English produced the second translation data. Hatim and Mason (1997) They emphasize that professional translation involves a deep understanding of the source text and the target language, as well as the ability to navigate various challenges in the translation process, including cultural differences and language conventions. The results produced by ChatGPT will be compared with those from this translation, which is regarded as the study's second sample.

Data Collection

In the data collection process, the two samples of translated text (from the source language and target language) were compared. By doing the following steps:

1. Determine which part of the University of Mataram Academic Handbook will be research and comparison material.
2. In the same section, the same action is carried out, namely translating into English, but the translation uses ChatGPT.
3. The final step that needs to be done after getting the translation results from two sources (ChatGPT and professional) is to compare the two translations to find the differences in the two texts by analyzing the two texts (translations carried out by ChatGPT and Professional). The analysis was carried out based on the theory determined by the researcher (Molina and Albir translation techniques) to find differences between the two texts.

The same process was carried out to compare sections of the Academic Handbook of University of Mataram to identify different aspects of the two texts (ChatGPT and Professional).

Data Analysis

The following steps and analysis approaches can be used to carry out the data analysis process for quantitative research utilizing comparative methods in translating Academic Handbook from University of Mataram using ChatGPT and professional translation.

A. Data Encoding:

To make the analysis process easier, give the data a code. Use the code, for instance, to differentiate between translations made by ChatGPT (GPT), translations made by professional translators (HT), and original Academic Handbooks (O).

B. Variable Identification:

The variable identified is the differences between translation using ChatGPT and professional, namely the suitability of the text and vocabulary used.

C. Evaluation of the Translation's Quality:

To assess the translation quality of each sample. will use the comparison method by Juliane House (1997).

D. Comparative Analysis:

- ✓ Compare results between ChatGPT translations and professional translations for each variable.
- ✓ Identify significant differences between the two translation methods

E. Interpretation of Findings:

- ✓ Interpret analysis results carefully and present findings objectively and clearly.
- ✓ Provide conclusions based on the data analysed.

RESULT AND DISCUSSION

Findings

Molina & Albir (2002) theory is used to identify differences between ChatGPT and Professional translations. While Juliane House's (1997) theory is used to identify comparisons of accuracy in translations by ChatGPT and professionals. In this study, there were two (2) samples used, namely Professional translation results and ChatGPT translation results. On the two translation results, a comparative analysis of the differences between the two translation results was carried out. Then determine the accuracy of the two samples, namely the Professional translation results and the ChatGPT translation results.

Identification the differences aspects of ChatGPT and Professional Translation

For answer the first question, of research problem; what are the aspect of the differences between translation using ChatGPT and Professional in the Academic Handbook of University of Mataram, for comparative analysis of the differences between Professional and ChatGPT, researchers used techniques from Molina and Albir (2002) "*Translation Techniques*". The data will be defined by analyzing based on the selected Molina and Albir techniques, namely borrowing, adaptation, and literal translation. Each of these three techniques has a different number of findings from the analysis results. Examples are described in the following table:

Table 1. The number of each Borrowing, Adaptation and Literal Translation Techniques

NO	Techniques	Professionals	ChatGPT	Total
1.	Borrowing	76 times	71 times	147 times
2.	Adaptation	62 times	28 times	90 times
3.	Literal Translation	25 times	61 times	86 times

Based on the table above, it indicated how much each technique is used in translations, both original text translation, ChatGPT and Professional. Examples of analysis results using the three techniques are in the following table:

Borrowing technique

Taking words or expressions directly from another language, either as the original or naturalized.

Table 2. Translation analysis using Borrowing Translation Techniques

SUBSECTION	ORIGINAL (O)	PROFESSIONAL (HT)	CHATGPT (GPT)	ANALYSIS INFORMATION
PART 1 <i>Rencana studi</i>	(1) <i>Pengisian Kartu Rencana Studi1 (KRS)1 harus dilaksanakan dalam batas waktu sebagaimana tercantum dalam Kalender Akademik2 dan harus mendapat persetujuan Dosen Penasehat Akademik.</i>	(1a) The completion of the Study Plan Form (KRS)1 shall be conducted within the time frame specified in the Academic Calendar2 and obliged to receive approval from the Academic Advisor.	(1b) The filling of the Study1 Plan Card (KRS)1 must be carried out within the time limits as stated in the Academic Calendar2 and must obtain the approval of the Academic Advisor.	1a. HT uses a borrowing technique, in the words, <i>Kalender Akademik</i> becomes academic calendar, study becomes study is an example of translation using a direct borrowing technique from another language in a naturalized manner because these words contain similarities in the sound of the words translated by HT. HT uses adaptation translation techniques, for example the words <i>kartu rencana studi</i> become study plan form, in these words HT adjusts contextually to be more suitable to the target reader. 1b. Meanwhile, GPT uses Literal translation techniques, for example the words <i>kartu rencana studi</i>

SUBSECTION	ORIGINAL (O)	PROFESSIONAL (HT)	CHATGPT (GPT)	ANALYSIS INFORMATION
				become study plan card is a literal translation because the words are translated word by word which is translated by GPT. GPT also uses a borrowing translation technique, the word <i>Kalender Akademik</i> becomes study, academic calendar is an example of a translation using a direct borrowing technique from another language in a naturalized way because the word contains similarities in the sound of the word.

Based on the table above, it was found that the results of HT translations use borrowing techniques, which after analyzing the HT translations not only use borrowing techniques but also adaptation techniques. In the table there are translation numbering codes, for example (1a) is an analysis of HT translation results while (1b) is an analysis of GPT translation results. Then the GPT translation results also use borrowing techniques and also literal translation. The table above also shows the results of comparative analysis of translations by Professional and ChatGPT. In this section the focus is on the borrowing technique shown in the phrase "*Kalender Akademik*" to "*Academic Calendar*", where the phrase does not experience changes in pronunciation, which means it is translated directly from the original text.

Adaptation technique

Adjusting the cultural or contextual references to make the translation more suitable for the target audience.

Table 3. Translation analysis using Adaptation Translation Techniques.

SUBSECTION	ORIGINAL (O)	PROFESSIONAL (HT)	CHATGPT (GPT)	INFORMATION ANALYSIS
PART 1 <i>Rencana studi</i>	(7) <i>Perubahan KRS1 hanya dapat dilakukan sesuai</i>	(7a) The Study Plan Form (KRS)1 changes can only be made according to the schedule specified in the	(7b) Changes to the Study Plan (KRS)1 can only	(7a) Translation by HT uses the adaptation technique, a translation technique that

SUBSECTI ON	ORIGIN AL (O)	PROFESSION AL (HT)	CHATG PT (GPT)	INFORMATI ON ANALYSIS
	<i>dengan jadwal yang telah ditentukan dalam Kalender Akademik2</i>	Academic Calendar2.	be made according to the schedule specified in the Academic Calendar2	replaces terms in the source language with descriptions in the target language. It can be seen in the term KRS as The Study Plan Form. In the target language, this happens because the terms in the source language do not have equivalent terms in the target language. HT uses the borrowing technique, for example <i>Kalender Akademik</i> as Academic Calendar. (7b) This translation by GPT uses the Literal Translation technique. A translation technique that transfers an expression in the source language word by word to the target language. It can be seen in the expression <i>perubahan KRS</i> as changes to the study plan (KRS). GPT uses the borrowing technique, can be seen in the phrase <i>Kalender Akademik</i> as calendar academic

The table above indicated examples of comparative analysis results of translations by HT and GPT which after analysis were detected using three techniques, namely borrowing, adaptation and literal translation. Based on the analysis table above, the description is that in the HT translation there are adaptation techniques and borrowing techniques which are given the code number (7a) as the result

of analysis from Professional translations, while in the GPT translation results there are literal translation techniques and borrowing techniques which are coded (7b) as analysis results from translation by ChatGPT. Then the use of techniques in the translation results can be seen in the phrases or words that are bolded and italicized. Adaptation techniques can be seen in the example of the phrase "*KRS*" becoming "*the study plan form*". where the phrase is translated by HT by adjusting the cultural and contextual references of the target language readers.

Literal Translation technique

Translate words or expressions word for word.

Table 4. Translation analysis using Literal Translation Techniques

SUBSECTI ON	ORIGINA L (O)	PROFESSION AL (HT)	CHATG PT (GPT)	INFORMATI ON ANALYSIS
Part 5 Article 25	<i>5.Hasil evaluasi sebagaiman a dimaksud pada ayat (4) huruf a dijadikan masukan bagi dosen Penasehat Akademik1 dalam membimb ing mahasiswa merencanakan kegiatan belajarnya pada semester2 berikutnya (evaluasi blok3 di Fakultas Kedokteran tertuang dalam Buku Pedoman Fakultas Kedokteran).</i>	(5a) The results of the evaluation referred in Section (4) point a are used as input for the Academic1 Advisor in guiding students to plan their learning activities for the following semester2 (block evaluation3 at the Faculty of Medicine is contained in the Faculty of Medicine Handbook)	(5b) The results of the evaluation as referred to in paragraph (4) letter a serve as input for Academic1 Advisors in guiding students in planning their learning activities for the following semester2 (block evaluation 3 at the Faculty of Medicine is outlined in the Faculty of Medicine Guideline s).	5a. HT uses borrowing translation techniques from other languages, for example the words <i>akademik</i> , <i>semester</i> , <i>evaluasi</i> and <i>blok</i> become academic, semester evaluation, and block, it can be seen that these words have the same pronunciation as the target language. 5b. While GPT uses a direct translation technique with the target language, for example the words <i>akademik</i> , <i>semester</i> , <i>evaluasi</i> and <i>blok</i> become academic, semester evaluation, and block, some of these words have the same pronunciation from the source language as the target language. GPT also uses the literal

SUBSECTION	ORIGINAL (O)	PROFESSIONAL (HT)	CHATGPT (GPT)	INFORMATION ANALYSIS
				translation technique, for example, the evaluation results as referred to in paragraph (4) become the results of the evaluation as referred to in paragraph (4), where GPT translates words or expressions word for word in the sentence.

Based on the table above, the analysis results indicated that the HT translation code (5a) uses one translation technique, namely the borrowing technique which can be seen in words marked by italics and bold. Meanwhile, in the analysis results, the GPT translation marked with code (5b) was detected using the literal translation technique, which can be seen in the bolded and italicized phrases in the table. In this section the focus is on the literal translation technique used by GPT in its translation, namely translating expressions word by word. The literal translation technique can be seen in the example of the phrase *"the evaluation results as referred to in paragraph (4)"* becomes *"the evaluation results as referred to in paragraph (4)"*. From this example it can be concluded that in this technique the translation by GPT (5b) is carried out word by word.

Identify the Accuracy of ChatGPT and Professional Translation Results

For answer the second question of the research problem, namely which translation results are more accurate between the translations carried out by Professionals and ChatGPT. So, to determine the accuracy of the translation results between Professional and ChatGPT, researchers analyzed it based on the theory of House (1997) regarding Translation Quality Assessment. Where in this case only one technique is used, namely the accuracy technique. The goals of accuracy include conveying the meaning and message between the source language and the target language accurately and on target, as well as aligning it with the intended communicative context.

In determining the accuracy of translation results by HT and GPT based on the theory of Juliane House (1997), where there are four (4) methods for determining the quality of translation, namely textual analysis, comparison, description of type translation, and culture filter. These methods will be explained along with the analysis results in the following table

Several methods used to determine translation quality. In accordance with the aim of the second research question, namely determining the level of accuracy between two translation results carried out by HT and GPT.

Textual Analysis

The type of linguistic-textual analysis in which linguistic features discovered in the original and the translation

correlated with the categories Field, Tenor and Mode does not, however, as in the original model, directly lead to a statement of the individual textual function (and its interpersonal and ideational components).

Table 5. Example of Textual Analysis

Professional (HT)	ChatGPT (GPT)	Method of Translation Quality Assessment
(1a) The completion of the Study Plan Form (KRS)1 shall be conducted within the time frame specified in the Academic Calendar2 and obliged to receive approval from the Academic Advisor.	(1b) The filling of the Stud1 Plan Card (KRS)1 must be carried out within the time limits as stated in the Academic Calendar2 and must obtain the approval of the Academic Advisor.	<i>Kartu rencana studi (KRS)</i> <i>Kartu=form (HT)</i> <i>Kartu=card (GPT)</i>

The table above indicated the results of the analysis of the first method, namely the method for determining translation quality. Where the method is textual analysis. As the name suggests, this method is the act of analyzing words or phrases from the translated texts being compared so as to find differences between the two translations. The example in this section is the word *"kartu"* in two translations, namely by HT it becomes *"form"* while GPT becomes *"card"*. Where this word comes from the same word, but has a different meaning after experiencing language transfer. Which, the translation by HT means *"form"* in the target language means a *"form"* that needs to be filled in when registering with an agency or in some action. Whereas in the GPT translation, it means *"kartu"*, which in the target language the word is more likely to mean *"card"*, which means that in the source language the word does not have the same meaning but has changed meaning. So from here it can be seen which of the two translation results is more accurate with the meaning of the text from the source language into the target language.

Comparison

Whatever information exists regarding the cultural distinctions between the target and source groups must be taken into consideration for the comparative study of source and target texts as well as the assessment of covert translations. Now is the time to emphasize the need for empirical research in the field of language-pair specific contrastive pragmatic analysis. This is an important area for translation studies, and translation criticism in particular, and there is a strong need for more research in this area.

Table 6. Example of the Comparison

Professional (HT)	ChatGPT (GPT)	Method of Translation Quality Assessment
(1a) The completion of the Study Plan Form (KRS)1 shall be conducted within the time frame specified in the Academic Calendar2 and obliged to receive approval	(1b) The filling of the Stud1 Plan Card (KRS)1 must be carried out within the time limits as stated in the Academic Calendar2 and must obtain the	Based on the HT translation, the meaning of the word <i>"kartu"</i> is translated as <i>"form"</i> , which means the word <i>"form"</i> is more accurate than GPT translating the word <i>"card"</i> . In general, the word <i>"card"</i> has many

Professional (HT)	ChatGPT (GPT)	Method of Translation Quality Assessment
from the Academic Advisor.	approval of the Academic Advisor.	meanings. Meanwhile, what is meant in this phrase is a "form".

Based on the table above, it shows the results of a comparative analysis of the level of accuracy of the two translations, namely translations by HT and GPT using the second translation quality method, namely comparison. As the name suggests, this method analyzes the comparison between words/phrases from the two translations. An example of the results of the analysis in this section is the word "kartu" in the translation by HT which translates using the word "form". While the translation by GPT translates with the word "card". It can be seen from the use of these two different vocabularies that it shows the quality of translation accuracy between HT and GPT.

Describe of Type Translation

A translation is considered overt when it is clearly a translation and not a "second original." The fundamental difference lies in the fact that the recipients of the translation are not addressed in an overt manner. Source texts that require an overt translation are those that have a well-established value within the community speaking the original language; these can be historical texts related to a particular event that is or was addressed to a specific audience speaking the original language, or they can be timeless texts, such as artistic creations and literary masterpieces that transcend a particular historical meaning.

Overt Translation

An overt translation is one in which the addressed of the translation text are quite "overtly" not directly addressed. "An overt translation is not a second original": Juliane House 1997 (p:54)

Table 7. Example of Type Translation

Professional (HT)	ChatGPT (GPT)	Method of Translation Quality Assessment
		Describe of Type Translation
(1a) The completion of the Study Plan Form (KRS) ¹ shall be conducted within the time frame specified in the Academic Calendar ² and obliged to receive approval from the Academic Advisor.	(1b) The filling of the Stud1 Plan Card (KRS) ¹ must be carried out within the time limits as stated in the Academic Calendar ² and must obtain the approval of the Academic Advisor.	The HT translation type is Overt

Based on the table above, it shows the results of translation text analysis by HT and GPT. The method used is to determine the types of translation. In this method there are two types of translation, namely Overt and Covert. However, this section will describe examples of text analysis results which are a type of translation of Overt translated by HT. As the results shown in the table show that the translation carried out by HT is a type of Overt translation because the scope of the translation is wide and the use of vocabulary can convey

the meaning of the text directly. An example of this type is the word "kartu" which is translated by HT as "form" and not "card", because HT adapts to the contextual target language.

Covert Translation

A Covert translation which enjoys the status of an original source text in the target culture. The translation is covert because it is not marked pragmatically as a translation text of source text but conceivably, have been created in its own right: Juliane House 1977 (p:56).

Table 8. Example of Type Translation

Professional (HT)	ChatGPT (GPT)	Method of Translation Quality Assessment
		Describe of Type Translation
(1a) The completion of the Study Plan Form (KRS) ¹ shall be conducted within the time frame specified in the Academic Calendar ² and obliged to receive approval from the Academic Advisor.	(1b) The filling of the Stud ¹ Plan Card (KRS) ¹ must be carried out within the time limits as stated in the Academic Calendar ² and must obtain the approval of the Academic Advisor.	The GPT translation type is Covert

The results of the analysis of the second type of translation can be seen in the table above which shows an example of the Covert translation type which was translated by GPT. The explanation in this table is the opposite of table 4.8 which is the first type of translation, namely Overt. In this section, the translation by GPT is included in the Covert type of translation because it can be seen in the example that the same word, namely "kartu" is translated by GPT into "card" where this translation is transferred without paying attention to the contextual context in the target language.

Culture Filtering

Culture Filter is a means of capturing socio-cultural differences in expectation norms and stylistic conventions between the source and target linguistic-cultural communities. The concept was used to emphasize the need for empirical bases for any 'manipulations' on the original undertaken by the translator: Juliane House (1977 p:68)

Table 9. Example of Culture Filter

Professional (HT)	ChatGPT (GPT)	Method of Translation Quality Assessment
		Culture Filter
(1a) The completion of the Study Plan Form (KRS) ¹ shall be conducted within the time frame specified in the Academic Calendar ² and obliged to receive approval from the Academic Advisor.	(1b) The filling of the Stud1 Plan Card (KRS) ¹ must be carried out within the time limits as stated in the Academic Calendar ² and must obtain the approval of the Academic Advisor.	HT translates words by adjusting the cultural and contextual references of the target language. Meanwhile, GPT translates words in general, namely in word for word form.

The table above indicated the results of the fourth analysis method, namely Culture Filter. Where the translation results are analyzed based on the comparative method. It can be seen that the difference in the results of HT and GPT translations is that HT translates by adjusting contextual and cultural references in the target language, for example the same vocabulary "*kartu*" becomes "*form*". Meanwhile, GPT translates word by word expressions without paying attention to the suitability of the meaning of the vocabulary in the target language. For example, it can be seen in the same word, namely the word "*kartu*" becomes "*card*".

Discussion

The discussion section will summarize the data on the different aspects of translations by ChatGPT and Professionals as well as the level of accuracy of the translation results by HT and GPT which have been described in the findings section. After carrying out the analysis stages on the results of the translation of the Academic Handbook of University of Mataram, the researcher explains the findings in the discussion section.

The differences aspects of ChatGPT and Professional Translation

The different aspects of the translation are determined (based on the theory of Molina & Albir (2002)), which is used in the analysis of differences in translation results by ChatGPT and Professional. Where in this theory discusses "*Translation Techniques*". The discussion section will describe the three techniques that have been used in the translation analysis, namely the Borrowing translation technique, the Adaptation translation technique, and the Literal Translation technique. Where techniques have different opportunities for use can be seen in the translation results that have been analyzed, both translation results by ChatGPT and translation results by Professionals.

Based on table 4.1, the findings show that the most widely used technique of the three techniques is the borrowing technique. where this technique has been used a total of 147 times. In the translation by HT, it was used 76 times, while in the translation by GPT it was used 71 times. Then, in general, there are 90 uses of the adaptation technique, of which 62 times are used by HT and 28 times by GPT. And the Literal Translation technique was widely used 86 times, of which 25 times were used by HT and 61 times were used by GPT.

Based on the explanation above, it can be concluded that the results of the comparative analysis of translations carried out by Professional and ChatGPT generally use more borrowing translation techniques, namely 147 times, this is due to the factor of using vocabulary from the source language into the target language with more transfers with borrowing language or vocabulary that is adapted to the context and style of the target language that is commonly used. The analysis results show that the borrowing technique is more dominant than the other two techniques.

As mentioned in the third previous research. Whose findings state that translations are not only shaped by the methods of the original author, but are also influenced by the particular era and individual approach of the translator (Xian Zhong; 2021). Which means that the translation results have many similarities in vocabulary, which shows that the use of borrowing techniques is caused by the translator's individual

approach, for example, cultural and contextual adaptation of the language from the source language to the target language.

The accuracy of ChatGPT and Professional Translation Results

The accuracy of a translation is determined by several factors as will be explained in this discussion section where the researcher uses the theory from Juliane House (1997) regarding *Translation Quality Assessment*. In House's theory, there are several methods for determining whether a translation can be said to be more accurate based on analysis using the translation method, including Textual Analysis, Comparison, Type of Translation, and Culture Filter.

Based on tables 4.5, 4.6, 4.7, 4.8, and 4.9 are examples of analysis results using the method of translation quality assessment. Then it can be concluded that the translation by HT is more accurate than the translation by GPT, one of the explanations of which is explained in the findings table 4.5. The textual analysis method obtained very significant differences between the translations by HT and GPT, for example the word "*kartu*" in the HT translation becomes a "*form*" where the vocabulary is adapted to contextual and cultural references in the target language. Meanwhile, GPT translates the word "*kartu*" as "*card*", which means that GPT translates it literally word by word without paying attention to contextual suitability between the source language and the target language.

As mentioned in the second previous study, the findings stated that "providing ChatGPT with the correct information about the input text (such as translation tasks and context domain) in the prompt can further unleash the performance of ChatGPT, however the information is too complex or noisy, it will produce severe performance degradation. In addition, using the few-shot examples is a method that needs to be considered seriously, because input-output examples contain a lot of hidden information that cannot be explicitly conveyed through specific text. (Yuan Gao, Ruili Wang, and Feng Hou; 2023).

Based on the statement, it states that ChatGPT's translation capabilities are still limited for texts that are quite complex and long so that the resulting translation results are not accurate. While the comparison with translations carried out by professionals is said to be more accurate because it is able to adapt to contextual and cultural references in the target language so that the translation results are easier to understand and the message and meaning of the original text are conveyed precisely and correctly into the target language.

CONCLUSION

This study underscores the potential for integrating advanced AI tools like ChatGPT into the translation process, especially for preliminary translations or assisting in less complex texts. However, for critical and culturally nuanced translations, professional human intervention remains indispensable. Future research should explore hybrid translation models, combining the efficiency of AI with the contextual and cultural sensitivity of human translators. Furthermore, studies could investigate how training AI with domain-specific corpora and cultural nuances may enhance its performance in producing accurate and culturally relevant translations. Expanding the scope of analysis to other

languages and content types will also enrich our understanding of AI's role in diverse translation scenarios.

In general, the results of the analysis indicated that the more dominant technique used in both translations is the borrowing translation technique. Meanwhile, each translation shows different results: the borrowing technique was used 76 times in translations carried out by Professionals (HT) and 71 times in translations by ChatGPT (GPT). The results of Professional Translation (HT) show that the most widely used technique is the Adaptation translation technique, which was employed 62 times, while ChatGPT (GPT) uses adaptation techniques only 28 times. The Literal Translation Technique was applied 25 times in Professional Translation (HT) but used 61 times by ChatGPT (GPT). Thus, borrowing is the most dominant technique overall. However, translations by professionals mostly use Adaptation Techniques, while translations carried out by ChatGPT predominantly employ Literal Translation Techniques.

The analysis also shows that professional translations (HT) are more accurate than those produced by ChatGPT (GPT). This is evident as professional translations tend to adjust vocabulary according to cultural and contextual references of the target language, making them more comprehensible to the readers. In contrast, ChatGPT translations are less accurate, as they often rely on word-for-word translation without adequately considering contextual and cultural nuances of the target language.

Recommendations for the translation field include exploring methods to enhance AI capabilities by incorporating contextual and cultural training for specific domains. Moreover, developing hybrid translation approaches that combine the rapid processing ability of AI with the nuanced understanding of professional translators could yield significant improvements in translation quality. Future studies should also assess the effectiveness of these hybrid models across diverse text types and languages to further refine translation practices and tools.

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